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SUBJECT: BENCHMARKING REQUIREMENTS

1. Purpose

This Bulletin reduces the redundancy in benchmarking efforts when establishing new positions.

2. Background

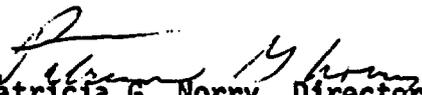
NRC Manual Chapter 4130 and its Appendixes contain the policies and delegations of authorities governing position evaluation. These documents place certain responsibilities for position evaluation on Office Directors and Regional Administrators. Consistent with those responsibilities, line managers have been required to prepare the NRC Form 772-A, "Position Action and Evaluation - Grades-1-15; Ungraded" for each new position. As required by the Form, both the supervisor and the reviewing official have been obliged to "benchmark" the position description. The results of the benchmarking have then been reviewed in the Division of Organization and Personnel (O&P) or in the Regional Personnel Office.

3. New Procedure

Significant administrative efforts may be saved if the redundancy of benchmarking is eliminated. Accordingly, effective immediately, line managers may omit the benchmarking portion of Form 772-A when requesting that a new position be established. However, both the supervisor and the reviewing official will continue to sign Part II of the Form to certify the accuracy of the position description.

The Division of O&P will benchmark the position description and document the point values on Form 772-A. In the Regions, it is only necessary for the RPO to benchmark and document the point values prior to obtaining final Headquarters' approval. In those cases where the Personnel evaluation differs from the grade requested, line managers will be notified, the issues will be discussed and the managers will be invited to submit a formally benchmarked evaluation. Outstanding issues will be finally resolved as provided in NRC Manual Chapter 4130.

NRC Manual Chapter 4130 will be modified consistent with these procedures.

  
Patricia G. Norry, Director  
Office of Administration

**Pay Administration**  
**Evaluation of Positions GS 1-15**

**OFFICE OF PERSONNEL**  
**U.S. NUCLEAR REGULATORY COMMISSION**

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## PART I

OUTLINE OF SYSTEMS FOR EVALUATION  
OF GS-1 - 15 POSITIONS

## A. GENERAL

The NRC evaluation system for GS-1 - 15 positions is separate from that applicable to Senior Executive Service, GS-16 - 18 and equivalent positions, and provides for the description and evaluation of NRC positions in grades GS-1 to GS-15, inclusive. It is the official basis on which grade determinations for NRC positions in these grade levels shall be made.

## B. BASIC STEPS IN NRC SYSTEM FOR EVALUATION OF GS-1 -15 POSITIONS

Evaluation of GS-1 -15 positions requires the following steps:

1. Description of the current duties and responsibilities assigned to the individual positions (Part II, A.).
2. Analysis of the work described on the basis of six evaluation factors (Part II, B.).
3. Evaluation of the position by comparison of the position with defined degrees of each factor and assignment of point values within each degree by comparison with benchmark standards (Part III).

## C. PROGRAM ADMINISTRATION

Day-to-day administration of the system is contained in Part IV of this appendix handbook.

## PART II

## POSITION DESCRIPTION AND ANALYSIS

## A. POSITION DESCRIPTION

1. Conditions

- a. When required. A description shall be prepared when a new position is being established, or there has been a significant change in the assigned duties or responsibilities of an existing position.
- b. When not required. A completely new position description may not be required to reflect changes in an established position. Minor changes may be reflected by pen and ink annotation to the existing position description and/or by the addition of a statement at the end of the description. Changes are considered minor if they do not require substantial rewriting of the existing description and if they have no impact on point values assigned to any of the evaluation factors. The responsible supervisor must, however, indicate approval of such change by initialing or signing the pen and ink annotations and the additions to the description. Also, changes must be processed in such manner as to assure that they become a part of the official position description and that the Division of Organization and Personnel concurs that changes are, in fact, minor and have no impact on assigned point values.
- c. Identical positions. Where a number of positions are being established which are fully identical to each other, it is not necessary to prepare an individual description for each position. A description shall be prepared for the basic position. Additional positions may be established identical to the basic description. These shall be identified in such a way as clearly to establish their relationship to the basic position. In such cases the employee assigned to the identical position shall be provided a copy of the description of the basic position involved.
- d. During detail or loan. Where an employee is on detail or loan (as provided in NRC Chapter 4108 "Employment"), it is not necessary to revise his position description as the employee continues to receive the salary of the position to which he is officially assigned. Appropriate documentation, however, shall be made of the detail or loan, in accordance with appendix 4108, VI, D. and E.

2. Methods. The description of duties of positions in grades GS-1 to 15, inclusive, shall be attached to NRC Form 772A, "Position Action and Evaluation," GS-1-15 (Part VI, B.2). NRC Form 323A, "Worksheet for Benchmark Correlation of a GS-1 -15 Position," will follow the description (Part VI, B.1). Position Action and Evaluation Requests shall be processed by use of NRC Form 181, prepared in accordance with NRC Manual Appendix 4108.
3. Preparation and Review. DETERMINATION OF JOB CONTENT IS A FUNDAMENTAL RESPONSIBILITY OF SUPERVISION. Hence, the position description of record shall be prepared by the supervisor most familiar with the work assigned, normally the immediate supervisor, and reviewed by the supervisor with the incumbent for accuracy and mutual understanding regarding the normal duties performed, and for consistency with assigned functional and organizational responsibilities.
4. Content and Style. Words used shall be simple and easy to understand. Terms from the Factor and Degree Definitions in Part V, B. should not ordinarily be used.

Describe WHAT is done, HOW it is done, and WHY it is done. To simplify the process of preparing descriptions and to insure common understanding, the standard terminology in Part V, A. should be used wherever possible.

5. Format. Positions shall be described under the following headings and in the following order:

## FUNCTIONAL STATEMENT

Show only the basic scope and purpose of the position as briefly as possible. A sentence or two will suffice. The approved organization chart can often serve as a useful aid in preparing the Functional Statement.

## REGULAR DUTIES

- a. Determine the primary or major functions of the position. State the "what," "how," and "why" for each Regular Duty.

- b. Duties shall be simply and clearly stated. Each Regular Duties statement shall be in sufficient detail to cover the following: What is the duty? How is it accomplished? Why is it necessary?
- c. The Regular Duties statement shall be specific, but not long or involved. Use action verbs, direct statements and be as concise as possible. However, do not be so brief that important aspects of the work are slighted.
- d. If a duty is significant enough to affect the qualifications required, or requires a significant portion of the time of the employee, it shall be shown under Regular Duties.

#### OCCASIONAL DUTIES

The use of the category "Occasional Duties" shall be limited. Occasional duties may include such as sharing with others responsibility for acting in the absence of the supervisor. Little if any credit can be given to an occasional duty when evaluating a position.

#### B. POSITION ANALYSIS BY EVALUATION FACTORS

An analysis of the position prepared on each of the following six evaluation factors shall be an inherent part of the position description.

Basic Skills  
Contacts  
Responsibility for Decisions  
Supervision Exercised  
Working Conditions  
Effort

The analysis shall be prepared in accordance with the following rules and guides (see Part V for factor and degree definitions):

##### 1. Basic Skills

- a. Basic Skills must relate to and be based upon the Regular Duties statement.
- b. In the Basic Skills statement identify the knowledge and skill required to fully perform the duties of the position. A position may require knowledge and skill in more than one field of work, a single field of work, a phase of a field of work, or just a single procedure or method. (See definition of "field of work" in Part V, A.) Indicate knowledge and skill requirements by:
  - (1) describing the way in which these are applied in the position. For example:
    - (a) knowledge of accounting principles, theories, concepts, and practices and ability to apply them in the establishment and revision of assigned agency administrative accounting systems.
    - (b) knowledge of double entry and accrual accounting methods and techniques in order to determine the nature of entries to be made into the accounting system and to maintain a variety of subsidiary accounts and ledgers.
  - (2) indicating possible methods of acquiring these skills or knowledges such as the alternative experience, training, and education possibilities. The use of a specific education requirement such as a specific degree shall only be used when the duties and responsibilities cannot be performed without such a degree.
- c. The Basic Skills statement should convey the nature and scope of knowledge and skill required in sufficient detail to facilitate the proper evaluation of the position. This does not preclude the setting forth of the basic skills required in such detail as will be useful in identifying qualified individuals in recruiting for vacant positions.
- d. The Basic Skills statement shall be written in terms of performance after a reasonable breaking-in period. If the position is a "trainee" position, this should be clearly stated.

##### 2. Contacts

- a. Group and list the contacts made by the incumbent in order of frequency, i.e., the most frequent or continuous contacts being listed first, frequent but not continuous contacts being listed next, and occasional contacts being listed last. Do not include contacts with the immediate supervisor or subordinates since these types of contacts are evaluated under other factors.

- b. Within the frequency groupings established in 2.a., above, the level and purpose of the contacts should be stated. Different types of contacts or contacts at different levels should not be indiscriminately lumped together.
- c. The purpose of the contacts should be clear. For example, to say that a Contract Administrator, GS-14, makes contacts for the purpose of "discussing the contracts which he administers" does not present a clear enough picture. Indication of the necessity for any negotiation and obtaining concurrences or agreements on controversial points would help place the position accurately in the proper degree.
- d. In the case of contacts which are not continuous but occur on a regular basis, the frequency should be specified. For example, a Budget Examiner "once a year" appears before a Budget Review Committee for the purpose of justifying a budget.
- e. Correspondence is not considered a form of contact. Only face-to-face or telephone contacts are relevant here.

### 3. Responsibility for Decisions

#### a. Supervision Received

- (1) State the position title of the immediate supervisor.
- (2) Indicate the Nature of Supervision Received. Terms defined in Part V, A.8 (General Direction, General Supervision A, General Supervision B, Direct Supervision, Detailed Supervision) must be used to indicate Nature of Supervision Received. Use the term which as defined most nearly fits the type of supervision received and describe only the differences between the manner in which the term is defined and the nature of supervision actually received.
- (3) State specifically the formal regulations, policies, NRC Manual Chapters or other guidelines the employee uses. Indicate whether the guidelines can be readily applied and/or the nature of interpretation required, if applicable.

#### b. Independent Action

- (1) Using the terms "approves," "endorses," or "recommends," as applicable, make any factual statement pertinent to the position. Refer to the types of action described under Authority and Responsibility for Decisions in Part V, A.4. Indicate signature authority as appropriate.
- (2) Other facts needed for evaluating this factor can usually be described in statements beginning: "Work accepted without review ..." Itemize the work accomplishments which are not normally reviewed by supervision and indicate signatory authority.
- (3) In those positions (such as Purchasing Agent, Contract Administrator, etc.,) where there are monetary or other limitations of authority, these limitations should be stated.

### 4. Supervision Exercised

- a. Do not complete this item unless "full" supervision is performed; administrative or technical direction is not sufficient. Occasional, intermittent or "strawboss" work leadership is not considered supervision for this purpose. Deputy positions, however, do receive supervisory credit when they are, in fact, full deputy positions responsible for supervising the work of subordinate employees.
- b. List the number, titles, and grades of all positions directly supervised by the incumbent.
- c. If positions directly supervised are supervisory positions, indent under each the titles and grades of the positions supervised. However, if more than two or three positions are under such subordinate supervisors, enter the total number of staff positions and the total number of clerical positions supervised. Indicate the range of grades in each staff group and in each clerical group. (See Part V, A.9 for definitions of "staff" and "clerical" employees.)

### 5. Working Conditions

- a. State whether the work is carried on under normal office conditions.
- b. Specify any disagreeable surroundings or working conditions which are characteristic of the work.

- c. Describe any hazardous conditions characteristic of the work.
- d. State how frequently there is exposure to such disagreeable or hazardous conditions.
- e. Describe any controls intended to remove or minimize hazards such as requirements for safety shoes and other special clothing, respirators and other special equipment or special physical examinations. Note, however, that in some cases the special clothing or equipment may be disagreeable to wear or use, and thus constitute an adverse working condition.
- f. Exclude any reference to irregular or intermittent duty involving unusual hazard for which a hazard pay differential has been authorized.

6. Effort

- a. State:
  - (1) what types of physical effort are demanded.
  - (2) the frequency and duration of each type of physical effort.
  - (3) whether the work requires awkward or confining work positions.
  - (4) whether visual effort is required to a degree which would cause fatigue.
- b. Exclude any reference to irregular or intermittent duty involving unusual physical hardship for which a hazard pay differential has been authorized.

PART III  
POSITION EVALUATION

A. USE OF DEGREES

Each of the six evaluation factors is described in Part V, B of this handbook in terms of a number of degrees of difficulty. As a primary step in the evaluation of a position, the position description must be reviewed against the degree definitions for each factor in order to determine the appropriate degrees.

B. USE OF BENCHMARKS

1. Point Values. After the appropriate degree in each factor is fixed, the proper point value within the degree must be determined. For this purpose, the point values of a number of positions are contained in Part VI, A. These positions are "benchmark" positions whose evaluations in Part VII of this appendix serve as a standard for guidance in the proper evaluation of other positions. By study and analysis of the benchmarks in relation to the position being evaluated, a specific point score is assigned for the position being evaluated in each degree of each factor. (See Part VI, B. Form NRC 323A, "Worksheet for Benchmark Correlation of a GS-1 to GS-15 Position.") No point score may be assigned in any factor greater than the maximum point score in the highest degree of that factor. Further discussion of some evaluation problems and considerations is contained in D., below.
2. Basis for Point Scores. Point scores in the NRC Evaluation System for GS-1 -15 positions are provided only in multiples of 5 points for each degree in each factor. Any such appropriate point score may be used even if no benchmark exists at that score.

C. CONVERSION OF POINT SCORE TO GRADE

After each factor is evaluated, the points are totaled and converted to the appropriate grade for the position in accordance with the conversion table in Part VI, B. of this appendix. If the total point score assigned exceeds 1,060, the position should be evaluated under the system for evaluating Senior Executive Service, GS-16, -17, and -18 and equivalent positions.

D. SPECIAL CONSIDERATIONS IN EVALUATING POSITIONS

Successful application of the NRC system for evaluating GS-1 -15 positions, as for other job evaluation systems, depends to a considerable extent on the use of sound judgment and optimum understanding of the position, its place in the organization, and the standards against which it is to be measured. Some of the special considerations often involved in evaluation of GS-1 -15 positions are identified below:

1. Evaluating the Position, Not the Employee. The personal qualities of an employee are not themselves valid considerations in arriving at the proper degree and point score within each of the factors. The factor and degree definitions and the benchmarks are provided for the purpose of measuring the difficulty or responsibility of the duties assigned to the position. However, if an employee, because of individual ability or personality, brings to his position duties or responsibilities above those previously considered appropriate, and these are officially assigned or approved for performance by the responsible supervisor, the position description shall be revised to reflect the new duties and responsibilities.
2. Assuring Completeness and Accuracy in the Position Description. The position description is the means of recording, for evaluation and other purposes, certain current facts about an established position. Evaluation shall be based on the facts presented in the description, and on any supplementary facts developed by interview. The interview will be conducted by a representative of the Division of Organization and Personnel when it is determined that additional or clarifying information is necessary to evaluate the position. Facts developed by interview shall be recorded and appended as part of the description to clarify points of information or to recognize pertinent facts which were not brought out fully in the description, but where it is found that the position actually functions differently from that described, a new description shall be prepared reflecting the actual assignment. Under no circumstances does the description serve as a "strait jacket" limiting or prescribing the types of duties or responsibilities which may subsequently be assigned. However, prior to preparing a new position description, careful consideration should be given to whether described duties are officially sanctioned and consistent with the purpose of the position.

3. Evaluation and Pay. The evaluation system is a method of determining the relative value of individual positions. While the evaluation affects pay through determination of grade level, it is important to remember that the resulting pay rate reflects relative difficulty or responsibility rather than a specific "market value" for the type of work or the individual. To attempt to solve a pay problem through increase in grade level of a position without a corresponding increase in responsibility not only violates basic policy but also creates inequities within the organization which may create further personnel problems.
4. Need for Thorough Understanding of Position and Benchmarks.
  - a. The appropriate application of the benchmarks as standards requires thorough understanding of both the benchmark positions and the position being evaluated. The need for thorough understanding of the position being evaluated cannot be overemphasized. This includes understanding the occupation and the organization in which the position operates as well as understanding the specific duties of the position. Additionally, an understanding of the interrelationship of the position being evaluated to other positions within and outside the organization in which the position is located is important.
  - b. The benchmark position descriptions include specific information describing the scope and complexity of the benchmark position. A thorough understanding of the benchmark position is necessary to assure its applicability on a factor basis to the position being evaluated. The relationship among benchmarks and comparison of one benchmark position to another is also essential to their proper application.
  - c. Undue emphasis should never be given to the presence or absence of specific words or phrases in either the benchmark position or in the position being evaluated. The use of isolated parts or portions of a benchmark out of context will distort position evaluation. Similarly, the over-emphasis of single or isolated examples of work in the position being evaluated will distort application of the evaluation system.
  - d. The evaluation process in NRC is one of comparing position with position on a factor basis. Within each factor, the analysis is based on a study of individual duties. Normally, the highest level duty controls the determination of the proper degree in which the position should be placed. However, the evaluator should take into account whether that duty is a significant one in terms of the overall purpose of the position and, further, the frequency and length of performance of that duty.
5. Duplication of Responsibility. In evaluating a position, one must consider whether the duties performed involve a degree of responsibility which the incumbent of the position bears alone or shares with others. Where several individuals, for example, provide expert advice, the responsibility of any one position for providing such advice is normally lessened, when contrasted with a situation where a single person is responsible for providing such advice.
6. Inability to Find Counterpart Benchmarks. Because of the type of system used in NRC for evaluating GS-1 - 15 positions, it is not necessary to have a benchmark for each type of NRC occupation. The factor approach eliminates this need by requiring, after the initial determination of the appropriate degrees, a comparison on an individual factor basis. As indicated above, however, this requires thorough understanding of the total benchmark position and the position being evaluated. The judgment process is extremely important in this phase. To facilitate to some extent the process of factor comparison, the benchmarks have been divided into occupational groups. If there is doubt as to the use of a specific benchmark, a study should be made of other benchmarks, particularly NRC Appendix 4130-A those in the same occupational groups and functional areas. However, comparison of the position being evaluated is not limited to positions in the same occupational group. Assistance may be sought from the personnel office in instances where the benchmarks do not appear to provide a reasonable or reliable source of guidance.
7. Range of Grades. Position evaluation systems are not so precise that all positions identically graded may be considered to be precisely the same in level of duties and responsibilities. The evaluation system for GS-1 -15 positions in NRC is based on the "position" and not the "place in the organizational structure" and not on a requirement that a position subordinate to another necessarily be a fixed number of grades below the superior position. An examination should be made of the alignment resulting from the evaluation process to insure that it is reasonable and that all pertinent information has been taken into consideration.
8. Application of the Whole Degree. In attempting to determine the appropriate degree for the position under evaluation, the position shall be placed in that degree which, in the entirety of its definition, appears best suited in each factor. One should not rely on individual parts of a degree definition without taking into account the general scope and purpose of that definition. Emphasis should be placed on evaluation of each individual factor of the position with the appropriate degrees in each factor.

EVALUATION OF GS-1 - 15 POSITIONS

9. Factor Application. Each of the factors in the NRC Evaluation System for GS-1 - 15 positions provide a separate means of measurement of the position under evaluation. While there is obviously a relationship between the weight placed on one factor and that on another factor for the same position, it is not intended that the same information be credited on more than one factor. For example, contacts should be described in the Contacts factor, and not in the Basic Skills factor as an ability requirement.
10. Evaluation Record. NRC Form 323A, the "Worksheet for Benchmark Correlation of a GS-1 - 15 Position," provides a record of the Benchmarks used in evaluation; NRC Form 772A, "Position Action and Evaluation Grades 1 - 15," provides a summary of the degree levels and point values assigned. In some instances, the special judgments critical to the evaluation are not evident from these records. Where such specific judgments have been critical to the determination of the applicable degree, benchmarks or point values, a narrative record of the basis for evaluation should be made and attached to the Worksheet NRC Form 323A.
11. Comparison with Office of Personnel Management Standards. The NRC Personnel Policy provides that evaluation of positions in NRC shall be in accordance with approved NRC standards. The approved NRC standards for GS-1 - 15 positions are the standards contained in this appendix. These NRC standards have been developed with full consideration for producing results consistent with those produced through use of OPM standards applicable to positions subject to Chapter 51, Title 5, U.S.C. Therefore, such OPM standards should not be used in day-to-day personnel actions concerned with determining the grade of individual NRC positions in the GS-1 through GS-15 range. As indicated in 6., above, assistance may be obtained from the personnel office in instances where benchmarks do not appear to provide sufficient guidance to evaluate a position. The personnel office may, in these cases, find it necessary to perform job studies involving other government-wide standards and practices.

## PART IV

## PROGRAM ADMINISTRATION

## A. PROCESSING EVALUATION ACTIONS

Position Action and Evaluation Requests shall be processed in accordance with the following principles and requirements.

1. The description and analysis of the position shall be prepared by the supervisor most familiar with the work assigned, or to be assigned. This is normally the immediate supervisor.
2. The description shall be consistent with any statement in an NRC management directive regarding the position or the organization in which located.
3. Supervisors shall recommend allocations of factor degrees, points assigned by degrees, total points, and grade.
4. Reviewing officials and the approving official shall review the description and analysis for clarity with respect to the duties and responsibilities, for consistency with any pertinent NRC management directives, and for consistency with good position management; and shall endorse, recommend or approve allocations of factor degrees and points assigned by degrees, total points and grade.
5. The NRC Division of Organization and Personnel shall review the position evaluation and, concur/ nonconcur in the allocation of factor degrees, points, and grade, and determine and assign occupational series codes, if applicable. When required, the Division of Organization and Personnel shall submit appropriate recommendations or endorsements concerning factor degrees, points and grade, and codes to the approving official.
6. Where there is no disagreement as to grade, the points for each factor determined by the Division of Organization and Personnel are official.
7. If the grade considered to be appropriate by the Division of Organization and Personnel differs from that considered to be appropriate by the approving official, an attempt will be made to reach an agreement on the evaluation.
8. If an agreement cannot be reached, the Division of Organization and Personnel will prepare an additional Form NRC-323A and supplementary justification, and both evaluations will be forwarded to the official authorized to approve evaluation of GS-1-15 positions in cases where the personnel office and the usual approving official cannot agree on grade determination. The deciding official, if he so determines, may use a Committee established for this purpose to provide advice as to the action to be taken.
9. When the action is completed, the original signed and approved copy of the position description shall be maintained in the official position description files of the Division of Organization and Personnel. The Division of Organization and Personnel shall send a copy of the official position description to the employee concerned through channels.
10. The immediate supervisor shall inform employees of the methods by which their grades and rates are determined and insure that they have been provided with copies of their current position descriptions, when personnel actions are completed.

## B. FORMAL REVIEWS OF GRADE EVALUATION DECISIONS

1. Basis for Review

- a. The incumbent of any NRC GS-1-15 position may request a formal review as to the grade of his position at any time if he believes that the grade of the position is incorrect under appropriate NRC evaluation standards.
- b. A review may also be requested when the employee is given notice of proposed action to change to a lower grade both the employee and the position he currently occupies (see Appendix 4171, IV.), if the employee believes that the proposed lower grade is incorrect under NRC evaluation standards. See NRC Chapter 4156, "Appeals from Adverse Actions," for the appeal procedures to appeal the selection of the employee for change to lower grade. An appeal of the change to lower grade action and a request for a review of the position evaluation may be made concurrently.

- c. A request for review may not be based on a change in duties and responsibilities which occurred after preparation of the official description. In such a case, a new description shall be prepared and evaluated under the regular procedures.
  2. Preparation of Request. A request for review shall:
    - a. be in writing.
    - b. identify the position involved, including its title and grade.
    - c. explain why the employee believes the present or proposed grade is in error, specify the grade deemed correct, and show the evaluation which the employee believes proper by citing applicable factor degrees, point scores, and comparable benchmarks.
  3. Processing and Disposition of Request
    - a. An employee in a GS-1-15 position requesting review of the grade evaluation of his position shall direct such request through supervisory channels, to the Director of the Office in which he is assigned.
    - b. The Division of Organization and Personnel shall arrange for an examination and report to assist in determining:
      - (1) the currency and accuracy of the description of the position involved.
      - (2) the applicable evaluation standards.
      - (3) the appropriate grade of the position through application of the standards.
    - c. The Director of the Office, with the concurrence of the Director, Division of Organization and Personnel, shall promptly advise the employee in writing of the determination reached as a result of the review.
    - d. If dissatisfied with the decision on review, the employee may submit a request for review of this decision to the Director, Office of Administration. The Director, Office of Administration, shall consider all facts in the review record and render his decision to the employee. In making this decision, the Director, Office of Administration, if he so determines, may use a Committee established for this purpose to provide advice as to the action to be taken. The decision of the Director, Office of Administration, shall be final.
    - e. A decision shall normally be made on any review request within 60 calendar days after receipt of the request by the official to whom the request is addressed in either a. or d., above.
  4. Retroactive Adjustment of Grade and Salary
    - a. The filing of a request for review under B.1.b., above, does not delay the effective date of a decision to change the employee to a lower grade. (See Chapter 4130-054.)
    - b. A decision favorable to the employee following the filing of a request for review under B.1.b., above, shall be retroactive to the effective date of the change to lower grade only if such request was filed in a timely manner, normally within 15 days after the effective date of the action which changes the employee to a lower grade. A restoration will require correction of records and payment of supplementary salary.
    - c. When a request for review of a change to lower grade results in a decision placing the position in a grade higher than that originally assigned, retroactivity will apply only to the extent of restoration to the grade immediately preceding the downgrading. Promotion to the higher grade shall be effected if in accord with Appendix 4108 at the beginning of the pay period following date of the review decision correcting the grade of the position.
  5. Cancellation of Reviews. A review will be cancelled upon written request of the employee. A review shall also be cancelled when the employee leaves the position which was the subject of the review request, and there is no possibility of retroactive benefit. Reviews in which there is a possibility of retroactive benefit shall be continued until a decision is reached, whether or not the incumbent remains in the position concerned, unless the employee or his beneficiary submits a written withdrawal of the request for review. If the employee concerned leaves his position before a decision is reached, and the decision is favorable to the employee, correction of records and supplementary salary shall cover only the time served by the employee in the position at issue in the review. The grade of his

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successor in the position at issue may not as a result of the review be adjusted retroactively beyond the date the successor began serving in the position at issue in the review.

6. System for Processing Discrimination Complaints. NRC Manual Chapter 4158, Equal Employment in Government Employment, outlines procedures for the processing of complaints of discrimination. Complaints of discrimination in employment on grounds such as race, color, religion, sex, age, or national origin are processed under these procedures.
7. Appeals of Preference Eligibles to the Merit Systems Protection Board. A preference eligible employee may appeal, under 5 U.S.C. 7701 (formerly section 14 of the Veterans' Preference Act), to the appropriate office of the Merit Systems Protection Board from a reduction in grade or pay resulting from an NRC evaluation decision. For details on the appeals procedures to be followed, see NRC Appendix 4156, V, A.

C. BENCHMARK MAINTENANCE

Recommendation for Change. Recommendations for changes in the benchmarks, establishment of new benchmarks, or preparation of interpretive material relating to application of benchmarks shall be submitted to the Director, Division of Organization and Personnel, through channels. On receipt of such recommendations, the Division of Organization and Personnel will examine the possibility of establishing additional benchmark positions or deleting existing benchmark positions and report to the requesting office the action taken and the reasons for such action.

D. APPLICATION OF OCCUPATIONAL SERIES AND CODES

1. Assigning Series and Codes. Each NRC position shall be given a code designating the applicable occupational series by the Division of Organization and Personnel. Determination of the series and code shall be made by reference to the OPM Handbook of Occupational Groups and Series of Classes and, where more specific definitive information is required, the OPM Position Classification Standards. (The introductory material in the standards for each series contains information intended to clarify the types of positions included or excluded from that series.)
2. Changing Assigned Series and Codes. The code for the appropriate series shall be entered on the position description of record in the space provided. The assigned series and codes shall be reconsidered on every subsequent position evaluation action to determine whether changes in assigned duties and responsibilities necessitate a change in the original series determination. Similarly, as CSC occupational series definitions are changed, appropriate reviews of NRC positions shall be made to determine need for possible revision.
3. Determining Appropriate Series and Codes. Every effort shall be made to assign the most appropriate series and code for the position under consideration. "General" series and codes are provided in the OPM Handbook for use where the position involves work of two or more series or types of work not identified under a specific series. These series are most commonly, but not exclusively, found as the "01" code in each group of occupations. For example, in the GS-800 Engineering Group, the GS-801 series, General Engineering, applies to positions performing professional engineering work not specifically classifiable in any other engineering series or to positions involving professional work in several branches of engineering.
4. Use of Series and Codes. The series codes identify positions by occupation and specialized line of work and are therefore used for a number of important purposes. They provide assistance in recruitment, selection, placement, promotion and other personnel processes. They are used to identify positions for which the expenses of travel and transportation to first duty station may be authorized and they identify positions for which special salary schedules are applicable as prescribed in Appendix 4130-C. The codes are also used for many recurring personnel reports, for various nonrecurring reports, and for other special actions and purposes.

## PART V

## DEFINITIONS, FORMS, AND GENERAL GUIDELINES

## A. STANDARD TERMINOLOGY (FOR USE IN PREPARING POSITION DESCRIPTIONS)

Certain terms relating to organization, work activity, management, responsibility, and occupation have significance when comparing and evaluating the characteristics of positions. For purposes of this chapter only, these terms have been given standard definitions as a means of assuring a common understanding when positions are described, analyzed, and evaluated, and to facilitate brief and succinct descriptions.

1. Organization

Agency	Agency is defined to mean an executive department of the Federal Government or any other separate, independent establishment or component of the government appropriately established by law and/or executive order. The Nuclear Regulatory Commission is an independent regulatory agency established under the provisions of the Energy Reorganization Act of 1974, as amended (PL 93-483) and Executive order, 11834, effective January 19, 1975.
The Nuclear Regulatory Commission or NRC	The agency as a whole, including the Commissioners and all other employees of the agency.
NRC Headquarters	When used as an organization title, NRC Headquarters refers to the total group of NRC offices, divisions, and other components responsible for NRC-wide functions.  When used as a physical location, NRC headquarters refers to the NRC offices located in the Washington, D.C. metropolitan area.
The Commission	The body of five Commissioners appointed by the President and confirmed by the Senate. One member, designated by the President as Chairman, acts as Chief Executive Officer of the Commission and its official spokesman.
Office	A primary program or staff component of NRC constituting the first organizational level below the Commission or the Executive Director for Operations.
Division	A primary program or staff subdivision of an NRC Office. Subdivisions of Divisions are Assistant Directors for specific functions (in some instances), Branches, Sections and Units in descending order.
Major Program Office	In NRC, a major program office refers to one of the following offices: Nuclear Reactor Regulation, Nuclear Material Safety and Safeguards, Nuclear Regulatory Research, Standards Development, or Inspection and Enforcement.
Staff Office	A staff office is an office created to perform specialized services and operations required to support the program functions of the NRC. Both the Commission and the Executive Director for Operations have Staff Offices reporting to them.
Regional Office	Regional office refers to those field organizations created to conduct inspections, investigations and enforcement activities with regard to U.S. licensed nuclear facilities. These offices report to the Director, Office of Inspection and Enforcement.

2. Work Activity

Basic Mission	Basic mission is defined as the overall purpose for which an Agency exists. The reason for the existence and the objective of NRC is to assure that civilian nuclear energy activities are conducted in a manner
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that will protect the public health and safety, preserve environmental quality, maintain national security and comply with the antitrust laws.

Program	A program is a group of functions performed on a continuing basis to meet a long range Agency need or objective. Programs may vary considerably in size, scope, and complexity.
Project	A project is a group of work activities of finite definition, although the duration may be a period of several years, designed for the purpose of the development of a specific end product or the accomplishment of a specific operational objective. Projects may vary considerably in the time needed for completion as well as in terms of size, scope and complexity. Such projects may be components of and contribute to the accomplishment of a broad program area.
Function	Function is defined as an assigned unit of responsibility. It may encompass either a broad or narrow segment of activities. For example, a branch may have as one "function" the development of standards for the storage and disposal of nuclear waste material. The "function" of a subordinate section might be the development of the disposal standards. Within that section certain clerical "functions" may be required. Also the section might have a position whose "function" is to prepare periodic and special reports and analyses.

3. Management

The following are characteristic activities of management.

Planning	The establishment of goals and objectives and ways and means for achieving them.
Organizing	The establishment of the formal structure of authority through which working units are defined and work is assigned and coordinated.
Staffing	Planning for, obtaining, developing and utilizing people to accomplish the work of the organization.
Budgeting	Planning for, justifying, obtaining and controlling financial resources necessary to accomplish the work of the organization.
Coordinating	Assuring that the various parts of the work are properly related to one another and to a common goal.
Controlling	The process of establishing standards, measuring performance against standards and correcting for deviations.
Directing	The continuing process of endorsing and making decisions, embodying them in orders and instructions, and exercising leadership in the accomplishment of goals, objectives and workload.

4. Authority and Responsibility for Decisions

Authority	The official power to approve or take action that commits the NRC as an Agency or that commits an organizational component of the NRC.
Responsibility	The accountability for decisions made or action taken on behalf of the NRC or an organizational component of the NRC.
Recommendation	A proposal for a course of action advanced for approval either within NRC or by an outside organization.
Approval	A decision by an NRC official or other employee which results in a commitment of the NRC or an organizational component thereof.
Endorsement	A decision by an NRC official or other employee that a recommendation, decision, or action should be given support.

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- Concurrence Agreement with a proposed "recommendation," or "approval" action by an organizational level or entity outside of the one responsible for initiating or approving the action.
5. Occupation
- Field of Work Any professional, scientific, technical, or administrative field which is recognized as an academic discipline at the bachelor's degree or higher level. In addition, fields such as the following are considered for job evaluation purposes to be recognized fields of work: budget, public information, technical information, organization and methods, personnel, procurement, auditing, and computer systems management. Fields of work may be broken into phases which, while basically related, require different work specialization.
- Specialty Work which requires an advanced state of knowledge/experience in a recognized field of work, phase of a field of work or a combination thereof. The required level of knowledge/experience in a given specialty can vary considerably depending upon the duties and responsibilities of the position.
6. Describing the Workforce
- Full-Performance Level Work Duties and responsibilities of normal complexity usually encountered within a function of an organizational component. Such duties and responsibilities require that an incumbent be well-versed and competent in the standard theories and practices of an occupational field. Supervision received in carrying out such work is that described under general supervision "B". The grade levels for full-performance duties and responsibilities will vary depending upon the difficulty and complexity of work within and among organizations, functions, programs, and occupational fields.
- First Supervisory Level The level to which responsibility has been given for the supervision of employees at the basic workforce level.
- Second Supervisory Level The level to which responsibility has been given for supervision of employees who themselves are supervisors at the first supervisory level.
- Middle Management The intermediate level of management between top management and the basic nonsupervisory workforce. It sometimes includes first and often includes second level supervisors.
- Top Management The level to which broad delegations of authority have been given and responsibility has been delegated for the direction and administration of programs which have significant impact on mission accomplishment.
- Operating Official For purposes of this chapter, any official to whom there has been delegated the authority and responsibility to approve, recommend, endorse, or effect stated actions.
7. Evaluation of Positions
- Benchmark Positions These are positions that serve as standards to be used in the official process of evaluation of other positions. NRC Benchmark positions are only those that are published as part of NRC Appendix 4130-A. They are positions which have been carefully analyzed in relation to each other as well as in relation to Federal Government-wide standards in order to assure their equitable relationship to one another on a factor-by-factor, degree-by-degree basis. These NRC Benchmark positions are the official NRC standards for use in determining appropriate point values within the Degree levels of each Evaluation Factor.
- Evaluation Factors Evaluation Factors are the common characteristics or elements of position used to analyze and measure the relative work of the position. There are six Evaluation Factors used in NRC for the evaluation of positions GS-1-15. The six Evaluation Factors are Basic Skills, Contacts, Responsibility for Decisions, Supervision Exercised, Working Conditions and Effort.

**Degree Definitions** Degree definitions are descriptions of the levels of difficulty, responsibility, working conditions and effort within the appropriate Evaluation Factor. Degree Definitions, together with the range of points assigned to each Degree, are published in Part V, B.

**Point Ranges and Values** Each of the Evaluation Factors has been given a weighted value based upon the relative importance of each factor to the total evaluation. These weighted values are reflected in the range of points assigned to each of the Evaluation Factors and Degree levels. They are also reflected in the points assigned in the Benchmark positions. In evaluating individual positions, the determination of Degree level establishes the applicable range of points for each factor, specific points for each degree are determined through the use of the Benchmark positions, points for each factor are totaled and converted to grade by means of the conversion chart published in Part VI, B.

8. Supervision Received

**General Direction** Typically, this is the type of supervision received by supervisory and mid-management level supervisory employees. Within very broad descriptions of the program or programs to be carried out, the employee has full responsibility for developing specific program objectives, policies, general plans of operations, as well as detailed work methods or procedures. He regularly refers only the most significant policy matters to his supervisor. The supervisor makes no review of program operations until they have been completed and placed into effect and then work is reviewed only in terms of accomplishment as reflected by contribution to the overall objectives of the NRC. Occasional reports at staff meetings are the principal basis for keeping the supervisor informed as to the direction of the program and problems arising in carrying out the program.

**General Supervision "A"** This is the degree of supervision normally received by employees such as first-line supervisors or the top functional staff specialists in a given subject matter area. Program objective and policies which are developed by the employee are approved by the employee's supervisor. The employee is fully responsible for developing work plans including work methods and procedures for achieving program objectives without reference to supervisor. Supervisor reviews new or changed policies, objectives, or broad work plans before they are put into effect. Occasional conferences are held with the supervisor on general work progress but very seldom on details of the work.

**General Supervision "B"** This is the level of supervision normally received by a fully-trained or full-performance worker in any field. The supervisor either assigns specific projects to the employee or reviews and approves proposed projects suggested by the employee. Upon such approval or assignment, the employee is left to go ahead with the assignment and determine his own detailed work methods and techniques. During the course of the assignment, no detailed review is made of the work. However, on unusual problems, the supervisor will review actual work performed. Frequent conferences are held with the supervisor on the general progress of the work; but only occasionally on the details of the work performed. At completion of an assignment, the supervisor will review the results from the standpoint of general adequacy and accomplishment of objectives, but not from the standpoint of detailed checking of step-by-step procedures.

This is also the level of supervision usually received by fully-trained clerical/technician employees responsible for accomplishing a particular clerical/technician function such as administrative support, communications, protective or custodial work which is of an established and recurring nature. The supervisor makes and explains the overall work assignment and the employee is then left to go ahead with the work in accordance with established rules and procedures. Employee uses own judgment in determining detailed work methods and in accomplishing the work, checking with supervisor only on novel or unusual tasks. No detailed review is made since the nature of the work does not so require,

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or review could only be accomplished by repetition of the original work itself. Correctness or incorrectness of the work would be noted when called to the attention of the supervisor in connection with related problems or obvious errors.

Direct Supervision

This is the level of supervision normally received by workers who are no longer "trainees" but have not yet achieved the full-performance level. Supervisors assign specific projects, parts of projects, or other work and bring to the worker's attention complex or unusual features and possible methods and techniques for dealing with them. Work is reviewed for soundness of technical judgment and to insure the overall completeness of assignments. Although technical methods and computations are not normally reviewed in detail, more difficult or unusual matters or those which involve serious consequences are reviewed thoroughly.

Detailed Supervision

This is the type of supervision normally received by employees who are at the "trainee" or equivalent level. A specific assignment is made to the worker; the procedures to be followed are outlined in detail; the work is reviewed in detail at specified points during the course of its accomplishment and again at its completion.

9. Supervision Exercised

Staff employee

All employees performing duties of a professional, scientific, or comparable administrative nature. (Generally relates to those "professional" positions in which a college degree or its equivalent in training and experience is required.)

Clerical employees

A general term applied, for this purpose, to all employees below the "staff level," including secretaries, messengers, guards, engineering aides, semi-manual or manual laborers.

Staff and clerical

Combination of "staff" and "clerical" employees in which a substantial proportion are of staff level (normally 25 percent or more).

Small group

Up to approximately 6-7 employees.

## B. DEGREE DEFINITIONS BY FACTORS

BASIC SKILLS FACTOR

Measures the minimum amount of knowledge, mental ability, and manual skill required to perform the duties assigned to the position.

Degree 190 - 115 Points

Positions are simple, routine, largely repetitive, performance being set by predetermined standards. Must know how to read, write, and count and be able to interpret simple verbal or written instructions, or undertake very simple manual operations, such as sorting. Specific duties can be learned on or off the position quickly without any significant loss of productive time.

Degree 2120 - 145 Points

Requires, in addition to the first degree requirements, some elementary skill or knowledge. This is the first degree at which the basic skills, such as typing, stenography or office machine operations must be brought to the position. Work is repetitive and is usually controlled by well-defined procedures or specific instructions.

Degree 3150 - 175 Points

This is the basic full performance clerical level. Requires an advanced degree of basic skill sufficient to do a repetitive type of work controlled only by general procedures, or involving a well-defined procedures or specific instructions.

Degree 4180 - 225 Points

This is the first degree for positions which require professional-type knowledge. Such knowledge (usually obtained through completion of study for a bachelor's degree) is required to perform a trainee job which involves no prior job experience. For work which normally does not require professional education or skills, requires knowledge of the principal techniques, work methods, or procedures involved in non-repetitive work. Activities are not controlled by well-defined procedures, and judgment is involved in getting the work done. This is the degree at which considerable clerical/technician judgment is required to carry out independently duties in a clerical or administrative field involving a very wide body of instructions, procedures, and processes.

Degree 5230 - 290 Points

For professional-type positions, requires:

- (1) Knowledge of the basic principles and theory underlying a field of work or broad phase of a field of work (usually obtained through completion of study for a bachelor's degree) and ability to apply them in practical situations or to problems of limited complexity under the guidance of a more experienced employee; or
- (2) Knowledge of the principles and theory in a phase of a field of work and ability to apply them in normal situations without guidance.

For the limited number of positions at this degree level which do not require professional education or skills, the work requires detailed knowledge (gained by long experience and extensive administrative background) of a broad and complex set of administrative practices, procedures, and work flow, and exceptional administrative ability. An example is providing complete administrative support to a multi-faceted licensing process for major facilities.

Degree 6295 - 375 Points

Requires knowledge of the basic principles and theory of a field of work plus practical knowledge of their application adequate for fairly independent work on all problems of normal complexity within the field; or

Requires more advanced training in the principles and theory of a field of work (usually gained by completion of study appreciably in excess of that required for a bachelor's degree) and ability to apply them under guidance.

Degree 7380 - 475 Points

Requires advanced knowledge of the principles and theories in a field of work and extensive knowledge of their application adequate for independent accomplishment of:

- (1) difficult, complex, and original work, related to the profession or specialty; or
- (2) work which is simultaneously complex and varied.

Degree 8

480 - 550 Points

Requires complete knowledge of a field of work for:

- (1) administering an agency-wide program, or an exceptionally complex major project; or
- (2) accomplishing exceptionally difficult staff work which contributes directly to the advancement of mission or a major program of the agency; or
- (3) serving as an agency-wide technical expert who provides authoritative advice and assistance on critical problems and issues which affect a very difficult, complex phase of a field of work or a complete field of work.

CONTACTS FACTOR

The measure of type and level of contact normally required by the position in meeting and dealing with people inside or outside the organization.

Degree 125 - 30 Points

Contacts at any level for the purpose of obtaining or giving specific factual information or material which is readily available and requires little or no discrimination or explanation.

Degree 235 - 40 Points

Contacts for:

- (1) Giving and/or refusing factual information requiring some explanation and development for accurate understanding; or
- (2) Obtaining and verifying basic factual data from various sources assuring accuracy and currency; or
- (3) Securing adherence to well defined, unambiguous rules and regulations.

Degree 345 - 70 Points

Contacts for the purpose of resolving minor differences on relatively routine matters within the organization, to adjust factual discrepancies in reports or other data; or to obtain or give factual information susceptible to misinterpretation; or

Contacts outside the agency requiring tact, diplomacy, and finesse to prevent damage to public relations, although on relatively routine matters involving giving and explaining factual information.

Degree 475 - 95 Points

Contacts with responsible personnel of the NRC, license applicants, licensees, contractors, outside agencies, the press, or representatives of the public, with respect to:

- (1) inquiring for information concerning methods, techniques, or practices for use in analyzing the effectiveness of operations, in recommending new or revised systems, plans, or approaches, or in resolving technical problems; or
- (2) reconciling divergent view or negotiating agreement or adjustment on specific, individual technical or management problems of some significance; or
- (3) presenting the organization's previously established position or providing assistance on technical or management matters of some significance which requires explanation of underlying purpose or reasons for position.

Degree 5100 - 130 Points

Contacts with NRC division directors, principal supervisors, technical or management officials of licensees, license applicants, and contractors requiring use of logic and persuasion in:

- (1) convincing others that a policy, a decision, or course of action is correct or desirable; or
- (2) defending controversial scientific and technical positions subject to conflicting interpretations; or
- (3) obtaining endorsement, concurrence, or action in establishing or revising methods, plans, regulations, or systems for execution of a program or project within policy or program limitations.

Degree 6135 - 170 Points

Contacts with NRC office and division directors, top managers of licensees, applicants and architectural and engineering firms, licensing boards and advisory committees and the Commission, or persons at similar levels in other agencies in:

- (1) discussing and influencing actions effecting significant changes in the administration of a basic mission or program or exceptionally complex major projects; or

- (2) obtaining coordinated action for changes of similar magnitude to (1) above involving or affecting b: mission or program or exceptionally complex major projects; or
- (3) defending new or highly controversial technical and scientific positions.

RESPONSIBILITY FOR DECISIONS FACTOR

Measures any decision which reflects the independent action requiring by the assigned function, from independently furnishing or securing information, to finally approving programs and policies.

Degree 150 - 65 Points

Little independent action required; decisions affect only the routine of the office in which the position is located and are based upon simple and specific instructions; possibility of error is minimized by precedent and would cause only localized loss of time and confusion.

Degree 270 - 90 Points

While decisions are generally based on specific instructions and standards, some interpretation is required because of the non-routine nature of the work or the variety of regulations, procedures, or instructions which must be applied. Resulting errors may not be immediately apparent but usually would be revealed in subsequent operations of that particular office and would result in minor confusion and delay or loss of materials.

Degree 395 - 125 Points

Decisions require constant interpretation of existing standards and procedures and their adaptation without guidance to problems of normal complexity. Errors would cause confusion, delay, or waste of materials in several offices. However, such errors would be revealed in subsequent reviews.

- (1) For professional or equivalent fields of work, decisions affect one or more phases of a project which contribute to a program activity; or
- (2) For other fields of work, decisions affect the management of administrative or procedural aspects of projects or important support functions.

Degree 4130 - 160 Points

Decisions require considerable adaptation of standards, and guidelines to problems which are controversial, very complex or without clear precedent. Instructions are primarily in terms of work to be accomplished.

Decisions result in:

- (1) Substantive recommendations concerning program or one or more important projects; or
- (2) Endorsement of action on matters which have considerable impact on program or one or more important projects.

Degree 5165 - 240 Points

Decisions result in:

- (1) Approval for establishing or modifying policies, programs or exceptionally difficult or important projects which commit the organization in the field of work encompassed by the position and which are limited only by overall NRC policy, program, or regulations; or
- (2) Important recommendations or endorsements concerning the establishment or significant modification of agency policies or programs in the field of work encompassed by the position which, although not limited by existing policy, are subject to endorsement or final approval by a higher authority; or
- (3) Authoritative determinations on technical issues and problems of crucial concern to the public health and safety where little or no guidance or precedent exists or where considerable controversy exists.

SUPERVISION EXERCISED FACTOR

Measures responsibility for organizing, directing, and coordinating the work of subordinates, including responsibility for the quality and quantity of work produced. Includes responsibility for recommending, endorsing, or approving personnel actions such as promotions discipline, placement, reassignment, and job and employee evaluation.

Degree 15 - 10 Points

Supervises the activities of:

- (1) one or two clerical assistants; or
- (2) a staff assistant or a staff and clerical assistant.

Degree 215 - 25 Points

Supervises the activities of:

- (1) a staff assistant and two or three clerical assistants in a phase of a field of work; or
- (2) a small group of clerical employees engaged in activities in a phase of a field of work.

Degree 330 - 45 Points

Supervises the activities of:

- (1) a large group of clerical employees engaged in activities in a phase of a field of work; or
- (2) a small group of clerical employees engaged in activities encompassing more than one phase or an entire field or fields of work; or
- (3) a small group of staff or staff and clerical employees engaged in activities in a phase of a field of work.

Degree 450 - 75 Points

Supervises the activities of:

- (1) a large group of clerical employees engaged in activities encompassing several phases of an entire field or fields of work; or
- (2) a large group of staff and clerical employees engaged in activities in a phase of a field or work; or
- (3) a small group of staff or staff and clerical employees engaged in activities in a field or fields of work.

Degree 580 - 120 Points

Supervises a large group of staff employees engaged in activities encompassing an entire field or fields or work.

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WORKING CONDITIONS FACTOR

Measures the surrounding and physical conditions under which the job must be performed which have an effect on individual performance, and the extent to which these conditions make the job disagreeable or hazardous.

Degree 1

5 - 10 Points

Satisfactory working conditions such as those encountered in an office where some noise and disruption may occur, or work outside not requiring frequent exposure to disagreeable elements or unsafe situations.

Degree 2

15 - 25 Points

Frequent exposure to disagreeable elements or where extreme noise, disagreeable lighting conditions, extreme temperatures, humidity, etc., are present, or occasional exposure to hazardous conditions.

Degree 3

30 - 45 Points

Continuous exposure to disagreeable elements or frequent exposure to hazardous conditions.

Degree 4

50 - 70 Points

Continuous exposure to hazardous conditions.

EFFORT FACTOR

Measures the physical demand or the stamina required in the job performance and the extent to which work induces unusual visual or physical fatigue, or demands physical effort or endurance.

Degree 15 - 10 Points

Effort is typically clerical or administrative where employee performs work involving light manual tasks. Includes work such as ordinary typing, filing, stenography, and others involving a minimum of effort.

Degree 215 - 20 Points

Effort is continuous and sustained although light. Continuous walking, standing, or light lifting.

Degree 325 - 50 Points

Effort is heavy and frequent, carrying and storing heavy material in warehouses, loading and unloading trucks.

## PART VI

## A. POINT VALUES BY DEGREE

BASIC SKILLS

<u>Benchmarks for Degree One</u>	<u>90 - 115 Points</u>
<u>Benchmarks for Degree Two</u>	<u>120 - 145 Points</u>
S&C-10 Clerk Typist	135
S&C-40 Mail and File Clerk	135
S&C-20 Clerk Typist	140
CSO-10 Data Transcriber	145
S&C-30 Clerk Stenographer	145
<u>Benchmarks for Degree Three</u>	<u>150 - 175 Points</u>
S&C-60 Mail Clerk	150
S&C-80 Telephone Operator	150
A&S-10 Travel Clerk	155
CSO-20 Peripheral Equipment Operator	155
S&C-50 Clerk Typist	155
S&C-90 Word Processing Operator	155
S&C-70 Clerk Stenographer	160
BAF-10 Budget Clerk	165
S&C-100 File Clerk	165
S&C-110 Secretary	165
S&C-120 Word Processing Operator	165
A&S-20 Travel Clerk	170
BAF-20 Payroll Clerk	170
BAF-30 Voucher Examiner (Travel)	170
CSO-30 Computer Aide	175
<u>Benchmarks for Degree Four</u>	<u>180 - 225 Points</u>
S&C-130 Secretary	180
BAF-40 Voucher Examiner (Commercial Accounts)	185
A&S-30 Personnel Clerk	190
S&C-140 Secretary	200
BAF-50 Accounting Technician	220
A&S-50 Office Services Manager	225
<u>Benchmarks for Degree Five</u>	<u>230 - 290 Points</u>
CSO-40 Computer Programmer	230
S&C-150 Secretary	230
A&S-40 Administrative Assistant	235
S&C-160 Secretary	235
A&S-60 Environmental Licensing Assistant	240
A&S-70 Procurement Agent	250
BAF-60 Systems Accountant	280

BASIC SKILLS  
(Continued)

A&S-80	Administrative Officer	290
A&S-90	Contract Assistant	290
A&S-100	Licensing Assistant	290
A&S-110	Technical Writer	290
BAF-70	Budget & Finance Assistant	290
PBS-10	Health Physicist	290
S&S-10	Physical Security Specialist	290
<u>Benchmarks for Degree Six</u>		<u>295 - 375 Points</u>
BAF-80	Operating Accountant	315
A&S-120	Reference Librarian	320
ENG-10	Uranium Process Engineer	330
CSO-50	Programmer/Computer Systems Analyst	335
S&S-20	Information Security Specialist	340
CSO-60	Computer Systems Analyst	350
ENG-20	Nuclear Engineer	350
S&S-30	Plant Protection Analyst	350
PBS-20	Chemist	355
ENG-40	Structural Engineer	360
PBS-50	Health Physicist	360
S&S-40	Material Control Analyst	360
CSO-70	Computer Systems Analyst	365
ENG-30	Nuclear Engineer	365
PBS-40	Meteorologist	365
A&S-130	Contract Specialist	375
A&S-140	Personnel Management Specialist	375
BAF-90	Auditor	375
BAF-100	Budget Examiner	375
ENG-50	Project Engineer	375
PBS-30	Hydrologist-Oceanographer	375
<u>Benchmarks for Degree Seven</u>		<u>380 - 475 Points</u>
BAF-110	Systems Accountant	395
S&S-50	Physical Security Specialist	410
ENG-60	Civil Engineer	420
ENG-70	Metallurgical Engineer	420
PBS-60	Health Physicist	420
A&S-150	Export/Import Licensing Officer	430
S&S-60	Plant Protection Analyst	430
S&S-70	Safeguards Research Analyst	435
BAF-120	Cost Accountant	445
BAF-130	Auditor	450
LEG-10	Attorney	450
ENG-80	Mechanical Engineer	460
PBS-70	Health Physicist	460
S&S-80	Material Control Analyst	460

BASIC SKILLS  
(Continued)

BAF-140	Budget Examiner	465
ENG-90	Criticality and Shielding Engineer	465
ENG-100	Research Engineer (Instrumentation)	465
ENG-110	Uranium Process Engineer	465
ENG-150	Chemical Engineer	465
ENG-120	Mechanical Engineer	470
ENG-130	Metallurgical Engineer	470
ENG-140	Nuclear Engineer	470
PBS-80	Seismologist	470
BAF-150	Financial Analyst	475
ENG-190	Reactor Project Inspector (Construction)	475
ENG-220	Reactor Project Inspector (Operations)	475
ENG-225	Senior Resident Inspector	475
OPR-10	Operations Research Analyst	475
S&S-90	Safeguards Systems Analyst	475

Benchmarks for Degree Eight480 - 550 Points

ENG-160	Chemical Engineer	485
ENG-180	Transportation Project Manager	485
PBS-90	Aquatic Biologist	485
ENG-170	Reactor Fuels Engineer	490
LEG-20	Regulations Attorney	490
LEG-30	Litigation Attorney	495
LEG-40	Litigation Attorney	495
LEG-50	Litigation Attorney	495
ENG-220	Project Manager	500
A&S-160	Senior Program Analyst	505
OPR-20	Risk Assessment Analyst	505
ENG-210	Metallurgical Engineer	515
S&S-100	Senior Plant Protection Specialist	530
ENG-240	Senior Radiation Materials Transportation Engineer	535
A&S-170	Senior International Policy Analyst	540
ENG-250	Senior Reactor Engineer	540
ENG-260	Senior Reactor Safety Engineer	540
ENG-270	Senior Waste Management Project Manager	540
ENG-280	Senior Environmental Project Manager	540
LEG-60	Senior Regulations Attorney	540
ENG-230	Senior Nuclear Engineer	545
LEG-70	Senior Litigation Attorney	545
LEG-80	Senior Litigation Attorney	545
LEG-90	Senior Litigation Attorney	545
ENG-290	Senior Operating Reactor Project Manager	550
ENG-300	Senior Project Manager	550
PBS-100	Senior Geologist	550
PBS-110	Senior Reactor Physicist	550

CONTACTS

<u>Benchmarks for Degree One</u>		<u>25 - 30 Points</u>
S&C-10	Clerk Typist	30
<u>Benchmarks for Degree Two</u>		<u>35 - 40 Points</u>
S&C-40	Mail and File Clerk	35
S&C-60	Mail Clerk	35
CSO-10	Data Transcriber	40
CSO-20	Peripheral Equipment Operator	40
S&C-20	Clerk Typist	40
S&C-30	Clerk Stenographer	40
S&C-50	Clerk Typist	40
S&C-70	Clerk Stenographer	40
S&C-90	Word Processing Operator	40
S&C-100	File Clerk	40
<u>Benchmarks for Degree Three</u>		<u>45 - 70 Points</u>
BAF-10	Budget Clerk	50
BAF-20	Payroll Clerk	50
BAF-30	Voucher Examiner (Travel)	50
S&C-80	Telephone Operator	50
S&C-110	Secretary	50
S&C-120	Word Processing Operator	50
A&S-10	Travel Clerk	55
CSO-30	Computer Aide	55
CSO-40	Computer Programmer	55
S&C-130	Secretary	55
A&S-20	Travel Clerk	60
BAF-40	Voucher Examiner (Commercial Accounts)	60
BAF-50	Accounting Technician	60
A&S-30	Personnel Clerk	65
A&S-40	Administrative Assistant	65
S&C-140	Secretary	65
S&C-150	Secretary	70
<u>Benchmarks for Degree Four</u>		<u>75 - 95 Points</u>
PBS-10	Health Physicist	75
A&S-50	Office Services Manager	80
BAF-60	Systems Accountant	80
BAF-80	Operating Accountant	85
ENG-10	Uranium Process Engineer	85
ENG-20	Nuclear Engineer	85
S&C-160	Secretary	85
A&S-60	Environmental Licensing Assistant	90
A&S-70	Procurement Agent	90
A&S-80	Administrative Officer	90
A&S-120	Reference Librarian	90
PBS-20	Chemist	90
CSO-50	Programmer/Computer Systems Analyst	95
ENG-30	Nuclear Engineer	95
PBS-40	Meteorologist	95

EVALUATION OF GS-1 - 15 POSITIONS

CONTACTS  
(Continued)

<u>Benchmarks for Degree Five</u>		<u>100 - 130 Points</u>
A&S-100	Licensing Assistant	100
PBS-30	Hydrologist-Oceanographer	100
A&S-90	Contract Assistant	105
A&S-110	Technical Writer	105
BAF-70	Budget and Finance Assistant	105
S&S-10	Physical Security Specialist	105
S&S-30	Plant Protection Analyst	105
CSO-70	Computer Systems Analyst	110
S&S-20	Information Security Specialist	110
S&S-40	Material Control Analyst	110
BAF-90	Auditor	115
BAF-100	Budget Examiner	115
BAF-110	Systems Accountant	115
BAF-120	Cost Accountant	115
BAF-130	Auditor	115
CSO-60	Computer Systems Analyst	115
ENG-40	Structural Engineer	115
PBS-50	Health Physicist	115
S&S-60	Plant Protection Analyst	115
BAF-140	Budget Examiner	120
ENG-50	Project Engineer	120
ENG-90	Criticality and Shielding Engineer	120
ENG-100	Research Engineer (Instrumentation)	120
ENG-120	Mechanical Engineer	120
ENG-130	Metallurgical Engineer	120
ENG-140	Nuclear Engineer	120
PBS-80	Seismologist	120
S&S-70	Safeguards Research Analyst	120
S&S-80	Material Control Analyst	120
A&S-130	Contract Specialist	125
A&S-140	Personnel Management Specialist	125
A&S-150	Export/Import Licensing Officer	125
ENG-60	Civil Engineer	125
ENG-70	Metallurgical Engineer	125
OPR-10	Operations Research Analyst	125
PBS-60	Health Physicist	125
S&S-50	Physical Security Specialist	125
BAF-150	Financial Analyst	130
ENG-80	Mechanical Engineer	130
ENG-110	Uranium Process Engineer	130
ENG-150	Chemical Engineer	130
PBS-70	Health Physicist	130
S&S-90	Safeguards Systems Analyst	130
<u>Benchmarks for Degree Six</u>		<u>135 - 170 Points</u>
LEG-10	Attorney	135
OPR-20	Risk Assessment Analyst	135
ENG-190	Reactor Project Inspector (Construction)	140
ENG-200	Reactor Project Inspector (Operations)	140
ENG-210	Metallurgical Engineer	140
ENG-170	Reactor Fuels Engineer	145
ENG-225	Senior Resident Inspector	145

CONTACTS  
(Continued)

ENG-180	Transportation Project Manager	150
PBS-90	Aquatic Biologist	150
A&S-160	Senior Program Analyst	155
ENG-160	Chemical Engineer	155
ENG-220	Project Manager	155
LEG-20	Regulations Attorney	155
ENG-230	Senior Nuclear Engineer	160
ENG-290	Senior Operating Reactor Project Manager	160
LEG-30	Litigation Attorney	160
LEG-40	Litigation Attorney	160
LEG-50	Litigation Attorney	160
PBS-100	Senior Geologist	160
PBS-110	Senior Reactor Physicist	160
ENG-240	Senior Radiation Material Transportation Engineer	165
ENG-250	Senior Reactor Engineer	165
ENG-260	Senior Reactor Safety Engineer	165
ENG-270	Senior Waste Management Project Manager	165
LEG-60	Senior Regulations Attorney	165
A&S-170	Senior International Policy Analyst	170
ENG-280	Senior Environmental Project Manager	170
ENG-300	Senior Project Manager	170
LEG-70	Senior Litigation Attorney	170
LEG-80	Senior Litigation Attorney	170
LEG-90	Senior Litigation Attorney	170
S&S-100	Senior Plant Protection Analyst	170

EVALUATION OF GS-1 - 15 POSITIONS

RESPONSIBILITY FOR DECISIONS

<u>Benchmarks for Degree One</u>		<u>50 - 65 Points</u>
S&C-10	Clerk Typist	60
S&C-20	Clerk Typist	65
S&C-30	Clerk Stenographer	65
<u>Benchmarks for Degree Two</u>		<u>70 - 90 Points</u>
CSO-10	Data Transcriber	70
S&C-40	Mail and File Clerk	70
S&C-60	Mail Clerk	70
S&C-80	Telephone Operator	70
CSO-20	Peripheral Equipment Operator	75
S&C-50	Clerk Typist	75
S&C-70	Clerk Stenographer	75
S&C-90	Word Processing Operator	75
A&S-10	Travel Clerk	80
A&S-20	Travel Clerk	80
BAF-20	Payroll Clerk	80
S&C-100	File Clerk	80
S&C-110	Secretary	80
S&C-120	Word Processing Operator	80
A&S-30	Personnel Clerk	85
A&S-40	Administrative Assistant	85
BAF-10	Budget Clerk	85
BAF-30	Voucher Examiner (Travel)	85
BAF-50	Accounting Technician	85
S&C-130	Secretary	85
BAF-40	Voucher Examiner (Commercial Accounts)	90
CSO-30	Computer Aide	90
CSO-40	Computer Programmer	90
S&C-140	Secretary	90
<u>Benchmarks for Degree Three</u>		<u>95 - 125 Points</u>
A&S-50	Office Services Manager	95
PBS-10	Health Physicist	95
S&C-150	Secretary	95
ENG-10	Uranium Process Engineer	100
ENG-20	Nuclear Engineer	100
A&S-70	Procurement Agent	105
A&S-60	Environmental Licensing Assistant	110
BAF-60	Systems Accountant	110
A&S-80	Administrative Officer	115
A&S-120	Reference Librarian	115
BAF-80	Operating Accountant	115
CSO-50	Programmer/Computer Systems Analyst	115
S&C-160	Secretary	115
A&S-90	Contract Assistant	120
A&S-110	Technical Writer	120
BAF-70	Budget and Finance Assistant	120
ENG-40	Structural Engineer	120
PBS-30	Hydrologist-Oceanographer	120
S&S-10	Physical Security Specialist	120

RESPONSIBILITY FOR DECISIONS  
(Continued)

A&S-100	Licensing Assistant	125
BAF-90	Auditor	125
ENG-50	Project Engineer	125
PBS-20	Chemist	125
<u>Benchmarks for Degree Four</u>		<u>130 - 160 Points</u>
A&S-130	Contract Specialist	130
A&S-140	Personnel Management Specialist	130
BAF-100	Budget Examiner	130
BAF-110	Systems Accountant	130
CSO-60	Computer Systems Analyst	130
CSO-70	Computer Systems Analyst	130
S&S-30	Plant Protection Analyst	130
BAF-120	Cost Accountant	135
BAF-130	Auditor	135
ENG-30	Nuclear Engineer	135
PBS-40	Meteorologist	135
PBS-50	Health Physicist	135
S&S-20	Information Security Specialist	135
S&S-50	Physical Security Specialist	135
S&S-70	Safeguards Research Analyst	135
BAF-140	Budget Examiner	140
ENG-80	Mechanical Engineer	140
ENG-110	Uranium Process Engineer	140
LEG-10	Attorney	140
PBS-70	Health Physicist	140
S&S-40	Material Control Analyst	140
ENG-60	Civil Engineer	145
ENG-70	Metallurgical Engineer	145
PBS-60	Health Physicist	145
S&S-60	Plant Protection Analyst	145
S&S-80	Material Control Analyst	145
BAF-150	Financial Analyst	150
ENG-90	Criticality and Shielding Engineer	150
ENG-100	Research Engineer (Instrumentation)	150
S&S-90	Safeguards Systems Analyst	150
A&S-150	Export/Import Licensing Officer	155
ENG-120	Mechanical Engineer	155
ENG-130	Metallurgical Engineer	155
ENG-140	Nuclear Engineer	155
PBS-80	Seismologist	155
ENG-150	Chemical Engineer	160
OPR-10	Operations Research Analyst	160
<u>Benchmarks for Degree Five</u>		<u>165 - 240 Points</u>
ENG-160	Chemical Engineer	170
ENG-170	Reactor Fuels Engineer	175
ENG-180	Transportation Project Manager	175
OPR-20	Risk Assessment Analyst	175
PBS-90	Aquatic Biologist	175
ENG-210	Metallurgical Engineer	180

EVALUATION OF GS-1 - 15 POSITIONS

RESPONSIBILITY FOR DECISIONS  
(Continued)

ENG-190	Reactor Project Inspector (Construction)	190
ENG-200	Reactor Project Inspector (Operations)	190
ENG-225	Senior Resident Inspector	190
LEG-20	Regulations Attorney	195
LEG-30	Litigation Attorney	200
LEG-40	Litigation Attorney	200
LEG-50	Litigation Attorney	200
A&S-160	Senior Program Analyst	200
ENG-220	Project Manager	210
A&S-170	Senior International Policy Analyst	225
ENG-230	Senior Nuclear Engineer	225
ENG-250	Senior Reactor Engineer	225
ENG-260	Senior Reactor Safety Engineer	225
ENG-270	Senior Waste Management Project Manager	225
ENG-280	Senior Environmental Project Manager	225
LEG-60	Senior Regulations Attorney	225
ENG-240	Senior Radiation Material Transportation Engineer	230
ENG-290	Senior Operating Reactor Project Manager	230
ENG-300	Senior Project Manager	230
LEG-70	Senior Litigation Attorney	230
LEG-80	Senior Litigation Attorney	230
LEG-90	Senior Litigation Attorney	230
'BS-100	Senior Geologist	230
'BS-110	Senior Reactor Physicist	230
S&S-100	Senior Plant Protection Analyst	230

SUPERVISION EXERCISED\*

<u>Benchmarks for Degree One</u>	<u>5 - 10 Points</u>
<u>Benchmarks for Degree Two</u>	<u>15 - 25 Points</u>
A&S-80 Administrative Officer	20
<u>Benchmarks for Degree Three</u>	<u>30 - 45 Points</u>
A&S-50 Office Services Manager	35
ENG-225 Senior Resident Inspector	40
<u>Benchmarks for Degree Four</u>	<u>50 - 75 Points</u>
<u>Benchmarks for Degree Five</u>	<u>80 - 120 Points</u>

\*Only three Benchmark positions reflect points for Supervision Exercised Factor.

WORKING CONDITIONS

<u>Benchmarks for Degree One*</u>		<u>5 - 10 Points</u>
CSO-10	Data Transcriber	10
CSO-20	Peripheral Equipment Operator	10
S&C-40	Mail and File Clerk	10
S&C-60	Mail Clerk	10
S&C-80	Telephone Operator	10
S&C-90	Word Processing Operator	10
S&C-100	File Clerk	10
S&C-120	Word Processing Operator	10
<u>Benchmarks for Degree Two</u>		<u>15 - 25 Points</u>
ENG-60	Civil Engineer	15
ENG-70	Metallurgical Engineer	15
ENG-190	Reactor Project Inspector (Construction)	15
ENG-200	Reactor Project Inspector (Operations)	15
PBS-20	Chemist	15
PBS-60	Health Physicist	15
S&S-50	Physical Security Specialist	15
ENG-225	Senior Resident Inspector	20
<u>Benchmarks for Degree Three</u>		<u>30 - 45 Points</u>
<u>Benchmarks for Degree Four</u>		<u>50 - 70 Points</u>

\*All benchmarks not otherwise listed are scored at five points.

EFFORT

Benchmarks for Degree One\*

5 - 10 Points

CSO-10	Data Transcriber	10
CSO-20	Peripheral Equipment Operator	10
S&C-40	Mail and File Clerk	10
S&C-80	Telephone Operator	10
S&C-90	Word Processing Operator	10
S&C-100	File Clerk	10
S&C-120	Word Processing Operator	10
S&S-10	Physical Security Specialist	10

Benchmarks for Degree Two

15 - 20 Points

ENG-60	Civil Engineer	15
ENG-70	Metallurgical Engineer	15
ENG-190	Reactor Project Inspector (Construction)	15
ENG-200	Reactor Project Inspector (Operations)	15
PBS-20	Chemist	15
PBS-60	Health Physicist	15
S&C-60	Mail Clerk	15
S&S-50	Physical Security Specialist	15

ENG-225	Senior Resident Inspector	20
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Benchmarks for Degree Three

25 - 50 Points

\*All benchmarks not otherwise listed are scored at five points.

**EVALUATION OF GS-1 - 15 POSITIONS**

**B. CONVERSION TABLE - TOTAL POINT SCORE TO GRADE**

Point Score Range	GS Grade
175 - 230	1
235 - 250	2
255 - 275	3
280 - 300	4
305 - 325	5
330 - 360	6
365 - 400	7
405 - 440	8
445 - 480	9
485 - 520	10
525 - 590	11
595 - 695	12
700 - 815	13
820 - 935	14
940 and above	15

If the total point score assigned exceeds 1,060, the position shall be evaluated under the evaluation system for SES, GS-16 - 18 and equivalent positions to determine whether it warrants a higher grade level.

B.1

B.2

## PART VI

## C. BENCHMARKS BY OCCUPATIONAL GROUP

## INDEX

<u>Title</u>	<u>Benchmark Number</u>	<u>Total Points</u>
<b>ADMINISTRATIVE AND SUPPORT</b>		
Travel Clerk	A&S-10	300
Travel Clerk	A&S-20	320
Personnel Clerk	A&S-30	350
Administrative Assistant	A&S-40	395
Office Services Manager	A&S-50	445
Environmental Licensing Assistant	A&S-60	450
Procurement Agent	A&S-70	455
Administrative Officer	A&S-80	525
Contract Assistant	A&S-90	525
Licensing Assistant	A&S-100	525
Technical Writer	A&S-110	525
Reference Librarian	A&S-120	535
Contract Specialist	A&S-130	640
Personnel Management Specialist	A&S-140	640
Export/Import Licensing Officer	A&S-150	720
Senior Program Analyst	A&S-160	880
Senior International Policy Analyst	A&S-170	945
<b>BUDGET, AUDIT, AND FINANCE</b>		
Budget Clerk	BAF-10	310
Payroll Clerk	BAF-20	310
Voucher Examiner (Travel)	BAF-30	315
Voucher Examiner (Commercial Accounts)	BAF-40	345
Accounting Technician	BAF-50	375
Systems Accountant	BAF-60	480
Budget and Finance Assistant	BAF-70	525
Operating Accountant	BAF-80	525
Auditor	BAF-90	625
Budget Examiner	BAF-100	630
Systems Accountant	BAF-110	650
Cost Accountant	BAF-120	705
Auditor	BAF-130	710
Budget Examiner	BAF-140	735
Financial Analyst	BAF-150	765
<b>COMPUTER SYSTEMS AND OPERATIONS</b>		
Data Transcriber	CSO-10	275
Peripheral Equipment Operator	CSO-20	290
Computer Aide	CSO-30	330
Computer Programmer	CSO-40	385
Programmer/Computer Systems Analyst	CSO-50	555
Computer Systems Analyst	CSO-60	605
Computer Systems Analyst	CSO-70	615

<u>Title</u>	<u>Benchmark Number</u>	<u>Total Points</u>
<b>ENGINEERING</b>		
Uranium Process Engineer	ENG-10	525
Nuclear Engineer	ENG-20	545
Nuclear Engineer	ENG-30	605
Structural Engineer	ENG-40	605
Project Engineer	ENG-50	630
Civil Engineer	ENG-60	720
Metallurgical Engineer	ENG-70	720
Mechanical Engineer	ENG-80	740
Criticality & Shielding Engineer	ENG-90	745
Research Engineer (Instrumentation)	ENG-100	745
Uranium Process Engineer	ENG-110	745
Mechanical Engineer	ENG-120	755
Metallurgical Engineer	ENG-130	755
Nuclear Engineer	ENG-140	755
Chemical Engineer	ENG-150	765
Chemical Engineer	ENG-160	820
Reactor Fuels Engineer	ENG-170	820
Transportation Project Manager	ENG-180	820
Reactor Project Inspector (Construction)	ENG-190	835
Reactor Project Inspector (Operations)	ENG-200	835
Metallurgical Engineer	ENG-210	845
Project Manager	ENG-220	875
Sr. Resident Inspector	ENG-225	890
Sr. Nuclear Engineer	ENG-230	940
Sr. Radioactive Materials Transportation Engineer	ENG-240	940
Sr. Reactor Engineer	ENG-250	940
Sr. Reactor Safety Engineer	ENG-260	940
Sr. Waste Management Project Manager	ENG-270	940
Sr. Environmental Project Manager	ENG-280	945
Sr. Operating Reactor Project Manager	ENG-290	950
Sr. Project Manager	ENG-300	960
<b>LEGAL</b>		
Attorney	LEG-10	735
Regulations Attorney	LEG-20	850
Litigation Attorney	LEG-30	865
Litigation Attorney	LEG-40	865
Litigation Attorney	LEG-50	865
Sr. Regulations Attorney	LEG-60	940
Sr. Litigation Attorney	LEG-70	955
Sr. Litigation Attorney	LEG-80	955
Sr. Litigation Attorney	LEG-90	955
<b>OPERATIONS RESEARCH</b>		
Operations Research Analyst	OPR-10	770
Risk Assessment Analyst	OPR-20	825
<b>PHYSICAL AND BIOLOGICAL SCIENCES</b>		
Health Physicist	PBS-10	470
Chemist	PBS-20	600
Hydrologist-Oceanographer	PBS-30	605
Meteorologist	PBS-40	605
Health Physicist	PBS-50	620
Health Physicist	PBS-60	720
Health Physicist	PBS-70	740
Seismologist	PBS-80	755
Aquatic Biologist	PBS-90	820
Sr. Geologist	PBS-100	950
Sr. Reactor Physicist	PBS-110	950

## EVALUATION OF GS-1 -15 POSITIONS

<u>Title</u>	<u>Benchmark Number</u>	<u>Total Points</u>
SECRETARIAL AND CLERICAL		
Clerk Typist	S&C-10	235
Clerk Typist	S&C-20	255
Clerk Stenographer	S&C-30	260
Mail and File Clerk	S&C-40	260
Clerk Typist	S&C-50	280
Mail Clerk	S&C-60	280
Clerk Stenographer	S&C-70	285
Telephone Operator	S&C-80	290
Word Processing Operator	S&C-90	290
File Clerk	S&C-100	305
Secretary	S&C-110	305
Word Processing Operator	S&C-120	315
Secretary	S&C-130	330
Secretary	S&C-140	365
Secretary	S&C-150	405
Secretary	S&C-160	445
SAFEGUARDS AND SECURITY		
Physical Security Specialist	S&S-10	530
Information Security Specialist	S&S-20	595
Plant Protection Analyst	S&S-30	595
Material Control Analyst	S&S-40	620
Physical Security Specialist	S&S-50	700
Plant Protection Analyst	S&S-60	700
Safeguards Research Analyst	S&S-70	700
Material Control Analyst	S&S-80	735
Safeguards Systems Analyst	S&S-90	765
Sr. Plant Protection Specialist	S&S-100	940

TRAVEL CLERK, GS-2132-4

## BENCHMARK

## FUNCTIONAL STATEMENT

Serves as a Travel Clerk in the Travel Services Branch. Provides advice and assistance to NRC Headquarters personnel regarding modes of transportation, entitlements, reservations, car rentals, most suitable routes and accommodations, timetables, etc. Most of the travel dealt with is within the United States; occasionally advises and assists in foreign travel. The work is primarily of a service nature in assisting travelers who are planning travel itineraries.

## REGULAR DUTIES

Reserves space on Amtrak.

Reserves rental car reservations from GSA contractors by telephone. Furnishes traveler with information as to the location of rental car agency, telephone number to be called for pick-up, and billing instructions.

Reserves rental car and air space and obtains airline tickets by use of the Apollo CRT computer terminal and an automated teleticketing system.

Assists traveler with itineraries by checking availability of flights by origination and destination points.

Reserves rental cars and requests availability of rental cars in specific cities, on carriers other than those with GSA contracts.

Obtains domestic trip fare quotes.

Retrieves previously made reservations for information purposes or to change reservations.

Requests special meals on specific flights for health reasons.

Checks filing capability of computer to see if suspense items have been confirmed such as flights, rental cars.

Utilizes the capabilities of the computer to see if suspense items such as flights and rental cars have been confirmed and to obtain other information as appropriate.

Reviews travel authorizations; assures that authorizations are appropriate and in accordance with applicable regulations. Reconciles routine problems on authorizations with the traveler. Refers difficult problems to the Travel Coordinator. Assigns numbers and computes costs.

Prepares Government transportation requests (TRs).

Checks ticket received against travel authorization, validates and adds information to the TR report upon receipt over the automated teleticketing machine.

Occasionally provides assistance to travellers taking foreign trips. Reviews and processes requests for foreign travel and provides information regarding modes and schedules for foreign travel.

## ANALYSIS

## BASIC SKILLS

155

Detailed knowledge of Federal Travel Regulations, NRC Travel Regulations, and decisions of the Comptroller General as related to domestic official travel. Ability to apply knowledge to routine foreign travel situations.

Ability to use official airline and railroad guides, travel planners, Rand McNally mileage guide, and various other instruments necessary in outlining travel itineraries, computing comparative cost statements, reservations, and furnishing general travel information to NRC travelers relative to available accommodations, routing, etc.

Ability to meet with travelers in arranging itineraries, travel reservations, and assisting in transportation problems. This requires tact, diplomacy, and patience.

Skill in the operation of the Apollo CRT computer terminal to obtain reservations and tickets.

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CONTACTS

55

Continuous contact with passenger agents and reservation clerks of airlines and railroads, discussing NRC passenger transportation problems and arranging for travel reservations, etc. Good working relations with commercial carriers are required to insure NRC travelers of prompt and courteous service.

Continuous contact with travelers at all levels and their secretaries, discussing their transportation problems, furnishing itineraries, and arranging travel reservations.

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RESPONSIBILITY FOR DECISIONS

80

Supervision Received

Chief, Travel Services Branch.

General Supervision "B".

Performance of job is governed by Federal and NRC Travel Regulations and Decisions of the Comptroller General.

Independent Action

Provides daily travel advice and assistance regarding transportation problems such as routings, tariffs, procurement of tickets, and general travel information.

Makes determinations relative to acceptable itineraries consistent with provisions of NRC and Federal Travel Regulations.

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SUPERVISION EXERCISED

None.

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WORKING CONDITIONS

5

Normal.

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EFFORT

5

Normal.

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TOTAL SCORE

300

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EVALUATION OF GS-1 - 15 POSITION

RAVEL CLERK, GS-2132-5

BENCHMARK

FUNCTIONAL STATEMENT

Serves as Travel Clerk in the Travel Services Branch, responsible for providing centralized travel services for Headquarters employees. Travel advice and assistance is provided on both domestic and frequent foreign travel. Occasionally, the travel is worldwide. The work is primarily of a service nature in assisting travelers who are planning travel itineraries.

REGULAR DUTIES

Foreign Travel

Reviews and processes requests for foreign travel.

Arranges for issuance of passports and visas.

Provides information regarding modes and schedules for travel.

Obtains reservations.

Provides advice and assistance on the applicability of Federal Travel Regulations.

Provides tickets and travel advances on a timely basis.

Domestic Travel

Assists traveler with itineraries by checking availability of flights by origination and destination points.

Reserves rental cars and requests availability of rental cars in specific cities on carriers other than those with GSA contracts.

Reserves space on Amtrak.

Obtains domestic trip fare quotes.

Requests special meals on specific flights for health reasons.

Utilizes the capabilities of the computer to see if suspense items such as flights and rental cars have been confirmed and to obtain other information as appropriate.

Reserves rental cars from GSA contractors by telephone. Furnishes travelers with information as to the location of rental car agency, telephone number to be called for pick up, and billing instructions.

Reserves rental car and air space and obtains airline tickets by use of the Apollo CRT computer terminal and an automated teleticketing system.

Reviews domestic travel authorizations; assures that authorizations are appropriate and in accordance with applicable regulations. Reconciles routine problems on authorizations with the traveler. Refers difficult problems to supervisor. Assigns numbers and computes costs.

Prepares Government transportation requests (TRs).

Checks ticket received against travel authorization, validates and adds information to the TR report upon receipt over the automated teleticketing machine.

Issues books of Transportation Requests to travelers and conducts semiannual inventory as required by NRC Travel Manual.

Prepares weekly billing report for all tickets received over the automated teleticketing machine.

Assistance on Change of Duty Station

Initiates correspondence to new hires and employees eligible for reimbursement of change of station expenses.

Prepares change of station authorizations.

Prepares reimbursement vouchers for change of station, including travel, movement of household goods, storage temporary quarters, house-hunting trips, and real estate expenses.

#### ANALYSIS

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#### BASIC SKILLS

170

Ability to apply a thorough working knowledge of current Federal Travel Regulations, NRC Travel Regulations, and decisions of the Comptroller General as related to new hires and employees eligible for reimbursement of change of station expenses and all other domestic and foreign travel.

Ability to use official airline and railroad guides, travel planners, Rand McNally mileage guide, and various other instruments necessary in outlining travel itineraries, computing comparative cost statements, reservations, and furnishing

general travel information to NRC travelers relative to available accommodations.

Ability to meet with travelers in arranging itineraries, travel reservations, and assisting in transportation problems. Ability to meet with new hires and employees transferring to new duty station to discuss those expenses an employee/new hire might be entitled to receive. This requires tact, diplomacy, and patience.

Knowledge of State Department regulations regarding the issuance of official passports and visas.

Knowledge of rules of foreign embassies regarding the issuance of visas.

Skill in the operation of the Apollo CRT computer terminal to obtain reservations and tickets.

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#### CONTACTS

1

Continuous contact with travelers at all levels and their secretaries, discussing their transportation problems, furnishing itineraries, and arranging travel reservations.

Frequent contact with new hires and employees transferring to new duty stations, discussing problems unique to them.

Frequent contact with the staff of the official passport section of the State Department to arrange for passports.

Frequent contact with foreign embassies to notify them of travel arrangements.

Continuous contact with passenger agents and reservation clerks of airlines and railroads, discussing NRC passenger transportation problems and arranging for travel reservations, etc. Good working relations with commercial carriers are required to insure NRC travelers of prompt and courteous service.

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#### RESPONSIBILITY FOR DECISIONS

80

##### Supervision Received

Chief, Travel Services Branch.

General Supervision "B".

Performance of job is governed by Federal Travel Regulations, Decisions of the Comptroller General, and the NRC Travel Regulations.

##### Independent Action

Makes daily decisions regarding transportation problems such as routings, tariffs, procurement of tickets, and general travel information for routine domestic travel.

EVALUATION OF GS-1 - 15 POSITION

Makes determination relative to acceptable itineraries consistent with provisions of the Federal Travel Regulations for routine domestic travel.

Works independently in preparing change of station authorization and vouchers, securing proper signatures and dispatching. Independently researches the latest commuted rate schedules from GSA in the preparation of travel documents.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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5

Normal.

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**EFFORT**

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5

Normal.

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**TOTAL SCORE**

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320

**EVALUATION OF GS-1 - 15 POSITIONS**

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PERSONNEL CLERK, GS-0203-6

**BENCHMARK****FUNCTIONAL STATEMENT**

Assists a team of Personnel Management Analysts by performing clerical assistance work in the areas of staffing, job evaluation, employee relations, and employee development. Handles all substantive clerical aspects of processing personnel actions regarding both professional and nonprofessional employees in a variety of occupations, including scientific and technical.

**REGULAR DUTIES**

Independently processes all types of personnel actions such as appointments, change in status, transfers and separations, training requests and authorizations, job evaluation worksheets, etc.

Refers as necessary to the NRC manual chapters referencing NRC personnel rules, regulations, guidelines, and procedures to determine that information contained in the various forms meets established procedural requirements.

Monitors the NRC Vacancy Announcement System for assigned accounts to assure that supporting documentation, including performance appraisals and references, have been obtained and applications are sent to the Selecting Official in a timely manner. Answers questions from applicants and operating officials regarding the status of posted positions.

Reviews recruitment action packages for completeness, contacting administrative personnel in the Divisions regarding problems or errors that exist in the package.

Maintains control over organizational profile and employee personnel history statement for accuracy and completeness. Based on current information obtained from a variety of recruitment related sources, prepares periodic reports which reflect our current and anticipated manpower staffing levels of assigned accounts. Prepares a monthly report of all position vacancies, including special reports on various grade and occupational groups.

Performs agency record checks on current Federal employees selected for employment to obtain accurate information sufficient to complete Form NRC 50 and establish an entrance-on-duty date.

Conducts Exit Interviews for professional and non-professional personnel leaving the Agency. Explains and answers questions regarding disposition of annual and sick leave, benefits coverage, retirement options and refunds, final pay, training and development obligations, etc.

Conducts new employee orientation for all professional and non-professional employees. Explains NRC policies and procedures governing leave, probationary periods, union eligibility, retirement options, health and life insurance coverage, employment status, salary schedule determination, employee evaluations, and training and development opportunities. Describes role and services provided by the Division of Organization and Personnel. Administers the Oath of Office.

Maintains logs, records, and ticklers necessary for ensuring timely completion and distributing information and certification regarding probationary periods, performance appraisals, and 60-day follow-up for new and specific category NRC employees. Takes actions necessary with regard to the Certification Program.

As requested by the PMS or Branch Chief, performs special projects connected with the recruitment, selection, placement, classification, and utilization of NRC personnel. Also, assists in studies designed to improve internal operating procedures. Assists PMS in providing training to Administrative Officers and supervisory personnel.

Maintains file on all current NRC directives and instructions, notifying PMS of all relevant changes.

**ANALYSIS****BASIC SKILLS**

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190

Knowledge of NRC and CSC personnel policies, procedures, rules, and regulations sufficient to independently complete the clerical processing of all types of personnel actions in the areas of staffing, job evaluation, employee relations, and training.

Knowledge of NRC personnel rules and regulations sufficient to authoritatively respond to a multitude of routine and non-routine inquiries regarding regulatory, procedural, and policy requirements applicable to processing personnel actions.

Knowledge of the full range precedent cases and knowledge of and familiarity with the NRC organization sufficient to independently process routine and non-routine personnel transactions.

Ability to select appropriate precedent cases and appropriate guidelines from the large volume of published guidelines and precedent material available to serve as a basis for procedural action.

A thorough knowledge of NRC ADP Manual 4176 necessary in order to accurately code and complete computerized personnel input forms.

Ability to independently assimilate information for development of clerical systems, reports, and summaries indicating the status of a variety of personnel activities.

Ability to convey thoughts accurately and concisely, both orally and in writing.

Thorough knowledge of the NRC Vacancy Announcement System with the ability to establish and maintain records and prepare a variety of staffing related reports.

Highly skilled in dealing with a wide variety of people under different and sometimes difficult circumstances, including pressure situations where accurate information must be provided rapidly.

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## CONTACTS

65

Continuous contact with employees to convey information on a multitude of personnel policy and procedural questions or to request information in regard to specific questions concerning personnel actions.

Daily contacts with Administrative Officers, Branch Chiefs, as well as supporting staff, regarding the status of processing requirements for personnel action and requests.

Frequent contacts with applicants to obtain additional information necessary for personnel processing.

Frequent contacts with Personnel officials in other Government agencies.

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## RESPONSIBILITY FOR DECISIONS

85

### Supervision Received

Personnel Management Specialist (Team Leader).

General Supervision "B".

Guidelines are NRC regulations pertaining to personnel policies and procedures as well as all procedural guidelines applicable to processing of personnel actions. Federal Personnel Manual, FPM supplements, Classification Act Standards, and other government-wide guidelines pertaining to personnel actions are referenced as necessary to clarify such items as occupational codes, personnel action codes, etc., where NRC guidelines may not cover all pertinent aspects.

### Independent Action

Determines the accuracy and appropriateness of information items to be entered into the computerized personnel data system based on precedent cases and established guidelines. Contacts applicants or other personnel as necessary to obtain necessary additional information.

Processes all types of personnel actions such as appointments, removals, reinstatements, changes in status, training requests and authorizations, job evaluation worksheets, etc.

Monitors the NRC vacancy announcement system for assigned accounts to assure that applications, eligibility determinations, and other such things associated with posted vacancies are processed smoothly and efficiently.

Reviews organizational profile and employee personnel history to maintain a control on the accuracy of information maintained on employees in assigned accounts.

Exercises judgment and responsibility in explaining NRC personnel policies or procedures responding to inquiries and determining calls which require immediate attention, referring these to PMS or supervisor as necessary for prompt and effective action.

EVALUATION OF GS-1 - 15 POSITIONS

Prepares routine correspondence on own initiative; responsible for neatness, accuracy, and proper format of material; and insures that necessary coordination is effected.

Uses initiative and judgment in planning and organizing work, to assure that required reports are issued to meet deadlines.

Determines the information to be entered into computerized personnel data system. On own initiative, contacts applicants for necessary additional information.

Work Accepted Without Review

Conducts new employee orientation for professional and non-professional employees.

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SUPERVISION EXERCISED

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None.

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WORKING CONDITIONS

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5

Normal office conditions.

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EFFORT

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5

Normal clerical effort.

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TOTAL SCORE

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35

ADMINISTRATIVE ASSISTANT, GS-0341-7

## BENCHMARK

## FUNCTIONAL STATEMENT

Assists in providing or obtaining a variety of management services essential to the direction and operation of an Office or a large Division. Performs work in support of the administrative management functions of the organization such as management analysis, budget administration, personnel management, contract administration, property management, space management, records management, security administration, and other similar activities.

## REGULAR DUTIES

Provides administrative support to the organization by assisting in various management directed studies. Follows specific guidelines and uses established procedures and techniques in completing assigned studies. Gathers information and assembles data in appropriate formats for determining similarities, contracts, past experience, projected needs, and other types of analytical comparisons. Assigned studies usually concern the procedural aspects of the work being performed in the organizational unit. Examples of work are: conducts workflow studies involving clerical employees and prepares descriptive reports of the findings including recommendations for improvement, thus assuring the most effective and efficient use of clerical support in the organization; studies the uses, procedures, and distribution involved with a particular form or report to assure that the information provided meets the needs of the users, is effectively utilized, and that there is no unnecessary overlap or duplication with other existing forms or reports. Recommends changes in format, distribution, content, etc., where applicable.

Provides administrative support to the organization by assisting in the gathering of information needed for the preparation of the personal services, travel, and technical training budgets at the assigned organizational level.

Obtains information from branch and division level supervisors for inclusion in the preparation of the budget.

Assists supervisors in organizing materials; advises them as to completeness and format required based on specific guidelines.

Reviews portions of requests for funds, checking for consistency with past budgets.

Maintains records of expenditures vs. allotments in order to assist in budget control.

Reviews requests for expenditures for travel, training, or office supplies to assure that they comply with established guidelines concerning format.

Provides data regarding assigned areas to employees or supervisors upon request.

Provides personnel management support by maintaining an application review control system. Assigns control form and control card to all personnel applications received for review in order to monitor status of applications within the organization. Verifies that forms sent to Division of Organization and Personnel involving personnel actions are properly completed in regard to format. Assists in providing central mail and file services for the organization; reviews current procedures and recommends possible changes to improve the flow of mail and paperwork. Reviews administrative policies or procedures to assure consistency with NRC guidelines and to locate possible duplication or overlap within local policies and procedures which can be eliminated.

## ANALYSIS

## BASIC SKILLS

235

Knowledge of the theories and principles of management and budget administration sufficient to follow specific guidelines and use established procedures and techniques in performing assigned studies.

Ability to gain a knowledge of the organizational structure, functions, procedures, and legislative mandate where applicable, of the organization served sufficient to apply this knowledge to the problems assigned.

Ability to learn personnel regulations and procedures sufficient to verify the correct format of all forms sent to the Division of Organization and Personnel regarding personnel actions.

Ability to exercise ingenuity, and inventiveness in devising solutions to problems; ability to gain cooperation and cooperate with others.

Ability to gather, assemble, and analyze facts, draw conclusions, and recommend solutions to assigned problems.

Ability to make oral and written reports and presentations and prepare graphs and charts clearly, concisely, and effectively.

Ability to analyze statistical and narrative information; ability to perform statistical-clerical computations involving percentages, ratios, averages, etc.

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CONTACTS

65

Frequent contacts with all levels of employees including supervisors at the branch and division level to obtain information regarding any aspects of administrative management such as budget administration, management analysis, personnel management, etc. Provides administrative management information of a routine nature to various employees and line officials up to the division or office level. Must at times resolve factual discrepancies or detect and discuss errors in data and reports with other employees and middle managers.

Occasional contacts with employees at the office level to gather information needed for assigned studies.

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RESPONSIBILITY FOR DECISIONS

85

Supervision Received

Administrative Officer.

Direct Supervision.

Independent Action

Recommends alternative solutions for administrative problems found as a result of studies performed regarding procedural aspects of work performed in the organizational unit. Such recommendations include the need for new or revised forms or administrative procedural changes in document flow.

Provides administrative management data relating to budget, personnel, etc., of a routine nature to employees at all levels up to the division or office level.

Assigns control form and control card to all personnel applications received in the organization for review.

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SUPERVISION EXERCISED

None.

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WORKING CONDITIONS

5

Normal office conditions.

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EFFORT

5

Normal administrative.

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TOTAL SCORE

395

EVALUATION OF GS-1 - 15 POSITIONS

OFFICE SERVICES MANAGER, GS-0342-9

BENCHMARK

FUNCTIONAL STATEMENT

Bears the principal responsibility for the full range of office services required by a regional office.

REGULAR DUTIES

Property Maintenance and Control:

Develops local procedures and systems for obtaining, maintaining, and controlling office equipment and supplies.

Processes request from NRC personnel in the regional office for office machines, furniture, and equipment. For items available locally, initiates procurement action.

Reviews and approves requests for those office supplies and material stocked by GSA or a local GSA contractor for NRC use, or if not available, requests bids from local office suppliers for the needed items.

Maintains control over nonexpendable property issued to the regional office personnel with respect to maintenance, repair, and replacement in accordance with local policies and procedures.

Administers service contracts for the maintenance and repair of reproduction equipment, recorders, and office machines used by NRC personnel.

Supervises the operation of the regional office supply room which requisitions, stocks, and issues office supplies peculiar to NRC users such as NRC letterhead, franked envelopes, blank forms, and rubber stamps.

Printing and Reproduction:

Supervises the operation of the reproduction facility which is usually equipped with one or more quick-copy machines which handle printing and reproduction of routine items.

Arranges for printing and reproduction service for items not handled above, through a local contract printing plant. This involves establishing working arrangements with the contractor, reviewing and approving requests, and providing assistance to requestor in determining most desirable and economical methods.

Communications:

Supervises the operation of the telecommunications system used in a regional office.

Maintains liaison with personnel in NRC headquarters concerning future requirements for telecommunications.

Assists the staff in determining their needs for telecommunications service and processes requests for such services.

Reviews long-distance telephone charges for accuracy, including FTS charges. Initiates procedures to follow for general use of the telephone.

Semi-annually prepares and publishes an Office Telephone Directory for distribution to NRC headquarters, locally and others.

Mail and Records:

Supervises the operation of the mail function for the regional office, which is responsible for receiving, distributing, and dispatching all classified and unclassified mail, maintaining required records on registered mail and classified documents, controlling important mail, and provides postal and mail management information and guidance to the general staff.

Supervises the establishment and maintenance of the general files covering many different technical or scientific subject matters. Recommends filing systems which will provide additional assistance for the technical staff.

Controls all classified documents in the regional office, ensuring that record, distribution, control, mail, and destruction of classified information is in accordance with NRC and local policies.

Supervises the operation of the document processing unit for the regional office, which processes administrative files, materials license files, docket files, and cardex control records.

Supervises the processing of materials licenses and amendments. Determines the category, priority, and inspection due date to be assigned.

Coordinates the initial review of docket and license file information received and assures correctness of entry into docket.

**Building Service:**

Processes requests to the operating contractor for alterations to offices. Also assists the offices in working out their arrangements and allocations, preparing requests for engineering assistance and ensuring that the work is accomplished.

Arranges for janitorial services for the regional office and ensures the adequacy of the work performed.

**Word Processing:**

Through a subordinate supervisor, supervises the operation of the word processing unit for the regional office. This unit types letters, memoranda, regulatory related reports, etc.

Establishes controls to schedule work efficiently and ensures that deadlines are met.

**Travel:**

Supervises the control and issuance of travel funds, transportation requests, and airline tickets.

Supervises the direct contact with commercial passenger carriers to arrange for travel. This includes foreign travel, domestic travel, and household moves.

Assures that travel authorizations are consistent with Standard Government Travel Requirements and NRC procedures.

**Purchasing:**

Supervises the requests for issuance of Purchase Order contracts for office machine maintenance, rental of office machines, and for purchase of office equipment and supplies.

Meets with representatives of business to discuss a commodity or service the regional office wishes to purchase or the business concern wishes to sell to the government, considering and evaluating the suitability, benefit(s), and cost to the government.

Supervises the maintenance of control of operating funds.

ANALYSIS

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BASIC SKILLS

225

Practical knowledge of Federal procurement procedures, GSA supply regulations, and NRC and local instructions, regulations, policies, and procedures related to: property management functions dealing with purchase, receipt, storage, issue and control of property and supplies; reproduction, word processing and printing methods; mail control; telecommunications management; records and documents control; travel; and other office services such as space planning and janitorial services adequate to plan, organize, and supervise such services for a regional office.

Ability to coordinate and supervise several functions and individuals.

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CONTACTS

80

Continuous contact with NRC regional office personnel for such purposes as assisting in alteration of offices, in planning office moves, the operation of the communication system, selecting proper reproduction and printing methods, and maintenance of office equipment.

Frequent contact with contractors and representatives of commercial firms to arrange for and coordinate services and supplies.

Occasional contact with NRC headquarters and other regional offices for office service related functions.

EVALUATION OF GS-1 - 15 POSITIONS

RESPONSIBILITY FOR DECISIONS 95

Supervision Received

Administrative Officer.

General Supervision "B".

Guides are GSA procurement procedures, NRC Manuals, and local regional office practices in office service management.

Independent Action

Recommends:

Procedures for obtaining, maintaining, and controlling office equipment and supplies.

Establishment and maintenance of general filing system for technical matter and a filing system to assist the technical staff.

Service contracts for the maintenance and repair of office machines for which service is not available through the contractor's repair facility.

Printing and reproduction service through a local contractor when not able to be handled at regional office.

Janitorial service for the regional office.

Procurement of office supplies and equipment not available from local stock from GSA or local GSA contractor. Requests bids from local office suppliers if not available through GSA.

Advice to NRC regional staff on such matters as printing and reproduction methods, types of telephone equipment, office space planning and office moves, and types of office machines and equipment.

SUPERVISION EXERCISED 35

- 1 Supervisor, CRESS UNIT
- 1 Records and Control Clerk
- 1 Travel Clerk
- 1 Purchasing Agent
- 1 Receptionist
- 1 Supply and Mail Clerk

WORKING CONDITIONS 5

Normal.

EFFORT 5

Normal.

TOTAL SCORE 445

## ENVIRONMENTAL LICENSING ASSISTANT, GS-0301-9

## BENCHMARK

## FUNCTIONAL STATEMENT

Provides administrative support to the Branch Chief and Environmental Project Managers by handling all administrative areas of the environmental review aspects of the licensing process. Advises applicants, Federal, State, and local governments and appropriate members of the public of the applicable laws, regulations, and policies considered by the staff in the environmental review aspects of the nuclear facility licensing process. Reviews and administratively processes to final action the Environmental Statements (both draft and final) for nuclear facility Construction Permits and Operating License Permits, Limited Work Authorizations, and both the Environmental Statements and the Safety Evaluation Report for Early Site Reviews.

## REGULAR DUTIES

Serves as the focal point in the branch as the most knowledgeable person in the branch on NRC rules, regulations, and procedures applicable to the administrative aspects of environmental reviews.

Environmental Review for Construction Permits and Operating Licenses

Reviews the Environmental Report portion of nuclear facility license applications and amendments to licenses to establish that information required for the environmental report is present, complete, and in conformance with Title 10, Code of Federal Regulations Parts 2, 50, 51, 100 and 170 and Regulatory Guide 4.2. The information which is reviewed is normally found in the first two or three chapters of Vol. 1 of an approximate 8-volume report. This information is non-technical in nature and is concerned with such things as plant siting, regional government data, area population distribution, etc., regarding the nuclear facility and the surrounding area.

Advises applicants and potential applicants for nuclear facilities of the applicable NRC regulations, guides, and policies, as well as Federal or State laws to be considered in the preparation and submittal of their Environmental Report (ER).

Assures proper distribution of the ER by the applicant to appropriate agencies, Federal, State, and local governments. Upon receipt of the ER, insures proper distribution to Environmental Project Manager (EPM), Technical Reviewers, National Labs, and any other groups or individuals that will be participating in the environmental review. Prepares notice of receipt to be published in the Federal Register.

Checks for the proper number of copies of documents provided by the applicant in order to assure that they are sufficient to establish legally required NRC files. Requests additional information from applicants as necessary.

Reviews technical portions of the Draft Environmental Statement (prepared by EPM, Technical Reviewers, Labs, etc.) to assure that required technical information is present and complete (but not to assure technical corrections) per the Environmental Statement Guide (ESG) and to assure that administrative information is present, complete, and correct per the ESG.

Prepares list of Federal, State, and local agencies requested to comment on the DES. Coordinates the compilation, printing, and the distribution of approximately 500 copies of the DES. Insures that all interested parties receive a copy of the DES whether or not they are requested to provide comments. Prepares letters to Federal, State, and local agencies requesting comment on the DES, and prepares Federal Register Notice regarding availability of DES.

Compiles comments received from various agencies and other interested parties in regard to the Environmental Statement, and sends the comments to the applicant along with a letter explaining action necessary on the part of the applicant and due dates. Establishes due dates for applicant responses.

Performs coordination and review functions for the Final Environmental Statement which incorporates both amendments and final responses to comments received on the DES.

Prepares LWA for signature; compares ASLBP decision (includes conditions, limitations, activities authorized, etc.) with applicant's request and FES recommendations in order to provide to the applicant a specific listing of activities authorized and limitations imposed. Sends copies of LWA to agencies on distribution list and prepares Federal Register Notice.

Early Site Reviews

Upon receipt of Early Site Review application, performs same types of administrative duties as in Construction Permit and Operating License applications in regard to ER, DES, and FES. In addition, coordinates the issuance of the site suitability certificate. For Early Site Reviews, the Environmental Licensing Assistant is also responsible for providing administrative support in the safety review portion of the certificate issuance process. This

involves such duties as preparing necessary Federal Register notices; preparing "Notice of Hearing" and memorandum to the Office of the Secretary; coordinating with the Office of the Executive Legal Director, and other similar duties.

Other Administrative Duties

Compiles testimony for technical staff for hearings on environmental issues. Researchs NRC files to produce documents associated with issues to be covered in hearings and for providing these documents for the environmental hearing proceedings.

Assists Branch Chief by preparing personnel action requests and by taking a primary role in the recruitment and training of branch clerical employees. Provides orientation to all branch personnel on procedural and organizational requirements, conditions, provisions, and limitations imposed by Commission regulations and policy which are applicable to the environmental review aspects of the licensing process.

ANALYSIS

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BASIC SKILLS

240

Knowledge of the environmental review aspects of nuclear facility licensing activities sufficient to administratively process Draft Environmental Statements, Final Environmental Statements, and Limited Work Authorizations. Knowledge of the environmental and safety review aspects of nuclear facility licensing to administratively process early site review certificates.

Knowledge of the Atomic Energy Act of 1954, as amended, 10 CFR Parts 2, 50, 51, 199, and Part 170 and Regulatory Guide Division 4, and any other applicable guides sufficient to serve as the most knowledgeable person in the branch on NRC rules, regulations, and procedures applicable to the environmental review portion of the nuclear facility licensing process.

Skill in analyzing and interpreting a variety of changing procedures, rules, regulations, etc., pertaining to the environmental review and the issuance of Limited Work Authorizations, and early site review certificates sufficient to administratively coordinate the assigned licensing projects. Ability to review changes in Commission rules and regulations, etc., and to determine which changes impact the environmental review portion of the licensing process and how these changes can best be implemented.

Knowledge of technical terminology sufficient to review technical portions of the DES and FES to assure that technical information is present and complete per the Environmental Statement Guide.

Understanding of legal principles applicable to the environmental review activities in order to handle day-to-day activities with OELD and to resolve problems affecting the processing of the environmental review.

Administrative skills sufficient to plan and coordinate the processing of Draft and Final Environmental Statements, LWAs, and early site review certificates.

General knowledge of the application of the National Environmental Protection Act, Federal Water Pollution Control Act, Coastal Zone Management Act, Endangered Species Act, and other laws which impact the environmental review aspects of the nuclear facility licensing process. This knowledge should be sufficient to inform applicants and other interested parties of Federal laws having an effect on the environmental aspects of the licensing review process.

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CONTACTS

90

Continuous contacts with attorneys in the Office of the Executive Legal Director on environmental review actions. Contacts are for the purpose of clarifying questionable items as related to procedural or administrative matters and securing concurrence on proposed actions regarding the environmental review aspects of the licensing process.

Frequent contact with technical staffs of other NRC Divisions and Offices. Contacts are for the purpose of clarifying questionable items, reconciling divergent views, and securing concurrence on proposed environmental review actions.

Frequent contact, through meetings and telephone conversations, with managerial staff of licensees, applicants and intervenors and their legal counsel relative to adequacy of data submitted, procedural matters, and status of applications.

EVALUATION OF GS-1 - 15 POSITIONS

Occasional contact with appropriate representatives of Atomic Safety and Licensing Board Panel, Office of the Secretary, and with the staff of the Advisory Committee on Reactor Safeguards to coordinate administrative aspects of licensing matters referred to these groups and clarify information pertaining to actions which they have processed.

Occasional contact with staffs of Federal, State, and local agencies and members of the public having an interest in a particular environmental review action. Contacts are for the purpose of providing requested information.

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RESPONSIBILITY FOR DECISIONS

110

Supervision Received

Branch Chief.

General Supervision "B".

Guidelines are CFR Title 10, NRC Guidelines, NRC Manual, the Administrative Procedure Act, Freedom of Information Act, and local operating procedures (such as the Licensing Assistant Handbook) that are both written and oral.

Independent Action

Reviews the Environmental Report portion of nuclear facility license applications and amendments to licenses to establish that information required for the environmental report is present, complete, and in conformance with applicable NRC regulations and guides.

Maintains cognizance of the most up-to-date NRC rules, regulations, and procedures applicable to the environmental review aspects of the licensing process. Reviews revisions to Commission rules and regulations and ascertains whether or not they are applicable to the environmental review aspects of the administrative procedures of the licensing process.

Implements changes to current administrative procedures to assure that the environmental review and required notifications in the Federal Register and to other necessary parties are completed in accordance with the new rules.

Assures proper distribution of the Environmental Report.

Assures that legally required files pertaining to the environmental review are established.

Coordinates the compiling, printing, and distribution of the DES and FES.

Coordinates and prepares the Limited Work Authorizations and early site review certificates; reviews all pertinent "input" documents to assure correctness and completeness and sends necessary copies to applicant and other parties on the distribution list; prepares necessary Federal Register Notices.

Reviews technical portions of the DES and FES to assure that required administrative and procedural information is present and complete per the Environmental Statement Guide.

Coordinates the compilation, printing, and the distribution of all Draft and Final Environmental Statements.

Compiles comments received in regard to the Environmental Statement.

Compiles testing for technical staff for hearings regarding environmental issues.

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SUPERVISION EXERCISED

None.

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WORKING CONDITIONS

Normal.

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EFFORT

5

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Normal administrative; however, subject to numerous deadlines that change on short notice. →

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TOTAL SCORE

450

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## PROCUREMENT AGENT, GS-1102-09

## BENCHMARK

## FUNCTIONAL STATEMENT

Purchases the large scale, more complex, special purpose type of supplies, services, materials, and equipment, particularly items in excess of \$500 which require open competition as well as purchase thru a Government schedule. Purchases may cost up to \$10,000 on the open market and range from office supplies stocked by General Services Administration to complex electronic equipment and a variety of service contracts. Emphasis is dual: (a) meeting the needs of the NRC mission, frequently within very short time limits, (b) at lowest possible cost to the government under conditions of maximum competition.

## REGULAR DUTIES

Examines incoming request to determine:

- a. Specific requirements of the activity initiating the request, i.e., adequacy of specification, justification of nonstandard or exceptional request.
- b. Whether item is available thru established Government sources or must be obtained on open market.
- c. Whether request can be combined with other procurements or obtained under existing blanket purchase agreements.

Takes action to reconcile differences in cases where specifications or requirements in the procurement request apparently conflict with legal requirements for lowest cost and competition. Assures that item or service is allowable and that any necessary justification is provided. This involves discussion with the requesting officials as to essentiality of specified factors vis-a-vis possible substitution of one or more features as well as location and careful analysis of specifications and conditions covering similar or related items, and relative priority of the item. On sole source requests, carefully reviews justifications from experience, suggesting alternatives; for questionable issues, coordinates justification with attorneys.

Carries out procurement action:

- a. Contacts potential sources to determine availability of items or services, delivery schedules, discounts, transactions, and other pertinent matters. Provides relevant information and discusses various alternatives, utilizing flexibility and diplomacy to bring about optimum purchase conditions.
- b. Prepares the necessary data to effect procurement action, such as Requests for Quotations, and written or petty cash purchase orders; insures that the documents include the required technical and contractual language, and appropriate special provisions for packaging, f.o.b. points, inspection, delivery, and payment.
- c. Evaluates bids and quotations in terms of technical requirements, delivery, payment, and other conditions; notes any exceptions bidder may have taken to the features specified. Selects successful bidder(s), assuring proper documentation where award is to other than lowest bidder or where there are real or apparent deviations from the norm.
- d. Exercises judgment on large orders as to whether to place order with one company or to distribute partial orders among a number of firms, considering price, discounts, past experiences, delivery time.
- e. Prepares, as necessary, purchase contract containing stipulations as to product to be delivered, quantities, time of delivery, special clauses regarding security, use of government furnished material, funds and payments, as well as standard "boilerplate."

Follows up to assure prompt delivery, to furnish interim information, to work out any necessary coordination. Contacts by telephone or composes letters, memoranda, and telegraphic messages as required to consummate procurement actions, expedite deliveries, and act upon unsatisfactory commodities delivered or services performed. Notes contractor's deficiencies as basis for future business relations or to caution the contractor on type of performance required.

Prepares information necessary to debrief bidders whose offers were not accepted or who complains about policies to win a contract. Informs such bidders as to the NRC's regulations and requirements.

Prepares and maintains records necessary to control the expenditure of funds for annual and blanket purchase orders. These records are in sufficient detail to support the payment of invoices and/or the basis for questioning the vendor with respect to the amounts invoiced.

Interviews representatives of business to discuss commodities and services which the Government wishes to purchase or which the business concern wishes to sell the Government, considering such things as suitability of commodity or service offered, application of new products to needs of the Government, and whether products exist which will meet present or future needs of the Government.

Performs other duties as assigned or required.

### ANALYSIS

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#### BASIC SKILLS

250

Sufficient knowledge of Federal Procurement Regulations, policies, and practices to comply with legal requirements and to effectively counsel requesting officials on such requirements.

Knowledge of a large variety of commodities and services, together with the suppliers thereof, utilized by the various organizational elements of NRC, and general knowledge of the structure and functions of these organizational elements. Must be able to grasp the essentials of the requisitioning division's requirements in order to relate the significant features of the requisition to items that are available on schedule and/or may be obtained within required time limits, and must be able to recognize relative priorities of the various actions.

Knowledge of sources of information regarding suppliers, commodities, and services. These include vendors' and agency catalogs, commercial registers and directories, commodity and supplier reference files, and related supply activities such as Federal Prison Industries.

Skill in translating requirement information provided by requisitioning offices into definite requirements which will serve as the basis for preparing procurement documents which vary and for which there are relatively few established guidelines. Skill in preparing a contract, when appropriate, which will incorporate requirements and special clauses of value to NRC.

Skill in dealing with others by personal contact, telephone, and correspondence, requiring tact, logic, and persuasive ability, particularly where the specifications are inadequate, sole source is requested, or special, unusual items are requested.

Ability to determine adequacy of conditions, terms, specifications, and most appropriate offers based on price and maximum competition.

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#### CONTACTS

90

Approximately 50 percent of employee's time is spent in personal or telephone contacts with Administrative and technical personnel of the requisitioning divisions, to arrive at mutual agreement as to the items or services needed and the soundness of the special justification when needed, while complying with the legal requirements of lowest bidder and maximum competition. Employee must be able to grasp the essentials of the requisitioning division's requirements and to elicit the requisitioning employee's cooperation in resolving questions concerning descriptions of items, specifications, alternate items offered by vendors, and understanding of delivery and other conditions. Tact, flexibility, persuasive ability, and logic are of utmost importance in

these contacts in order to gain cooperation and acceptance and thus achieve mutually agreeable procurement arrangements.

Suppliers, local and nationwide, regarding requirements of the items, delivery, and payment; to request bids; to provide information or assistance necessary toward successful culmination of any transactions. Tact, flexibility, and knowledge of the commodities/services required, as well as manner in which they are utilized, are essential to insure protection of the Government's best interests.

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#### RESPONSIBILITY FOR DECISIONS

105

##### Supervision Received

Chief, Procurement Section.

General Supervision "B".

EVALUATION OF GS-1 - 15 POSITIONS

Guides are Federal Procurement Regulations, procurement statutes, and Comptroller General Decisions, as well as Federal and NRC policies and practices. There is no dollar limit on purchases available from Government schedules. Open market purchases may be up to \$10,000.

Independent Action

Determines priorities of various actions.

Approves requests for quotations and the expediting of follow-ups.

Determines awards of purchase orders and acceptance or rejection of bids on all assigned procurement transactions.

Determines within prescribed regulations the most appropriate methods, procedures, or techniques to assure successful, timely purchases and makes relevant decisions within framework of established purchasing policies and procedures.

Work Accepted Without Review

In personal and telephone contacts, incumbent must determine whether information is adequate or must be pursued further; also, it is essential to recognize when the situation calls for referral to supervision.

Selects methods and bidders for the soliciting of bids.

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SUPERVISION EXERCISED

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None.

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WORKING CONDITIONS

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Normal office conditions.

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EFFORT

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5

Normal administrative effort.

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TOTAL SCORE

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455

## ADMINISTRATIVE OFFICER, GS-0341-11

## BENCHMARK

## FUNCTIONAL STATEMENT

Provides and obtains a variety of management services essential to the direction and operation of an Office or a large Division. Performs administrative support work in such areas as management analysis, contract administration, property management, space management, records management, security administration, personnel management, and other similar activities.

## REGULAR DUTIES

Performs various administrative support studies requested by management as specifically assigned by supervisor. Studies those areas identified by management as possibly requiring modified work methods, procedures, systems, or policies. Selects appropriate techniques for gathering needed data, analyzes data, devises solutions for identified problem areas, and recommends solutions to management for decisions. Studies may involve consideration of the work processes performed by both the clerical and the scientific, technical, or professional employees in the areas assigned. Examples of work are: the responsibility for streamlining records management in the organization by substantially reducing the number of forms, reports, or files required and developing the modified methods and procedures needed to operate under the revised system; the conduct of studies of staffing patterns and manpower requirements and recommending changes when applicable in order to meet the organization's goals more efficiently.

Provides administrative support to the organization by assisting in the preparation and compilation of the program support, personnel services, travel, and training budgets at the assigned organizational level.

- A. Assists branch and division level supervisors in developing budget estimates and justifications by furnishing prior year data, compiling information for completion of budget schedules, providing proper formats, etc.
- B. Makes practical determinations of reasonable costs, basing "reasonableness" on past budgets and on other established criteria.
- C. Conducts reviews and verification of budget figures.
- D. Consolidates several estimates into unified form appropriate for the assigned organizational level.
- E. Compares individual estimates with current year records and reports of program accomplishments, rate of obligations and expenditures, and latest cost projection.
- G. Examines requests for travel, training, or overtime expenditures to verify that they do not exceed allotments, assuring against violation of antideficiency regulations for which the allottee is held responsible. Certifies the availability of funds on requests for expenditures based on specific guidelines.

Responsible for advising supervisor in preparing position descriptions and in the evaluation of positions; as necessary, prepares requests for salary exceptions, exceptions to freeze orders, etc., and forms necessary for the proper processing of personnel actions. Acts as liaison for the organization on day-to-day routine personnel matters such as recruitment, staffing, training, employee relations, and position evaluation. Defers to the Personnel Management Specialists in the Division of Organization and Personnel when matters are not covered by specific guidelines.

Responsible for providing central mail and file services for the organization; procedures for handling classified material; correspondence procedures; and other similar types of administrative policies or procedures which must follow NRC guidelines.

Trains, or arranges for training of the organization's staff on administrative matters. Assists scientific, technical, professional, and clerical employees in implementing and adhering to the correct procedures in all administrative matters.

Assists in the coordination of manual issuances, administrative instructions and regulations within the organization; assures that material is routed to and reviewed by appropriate officials; compiles comments necessary for official response and assures that response is sent out within appropriate time frame.

Coordinates requests for office furniture and fixtures, procurement of office equipment and supplies for the organization. Reviews equipment and property utilization; recommends reassignment or release of equipment.

Coordinates organization moves, space requirements and utilization, and telephone requirements.

ANALYSIS

BASIC SKILLS

290

Practical knowledge of the theories, principles, processes and techniques of management sufficient to select appropriate practices and devise analytical techniques and methodology suited to the management problems assigned.

Knowledge of the organizational structure, functions, procedures, and legislative mandate, where applicable, of the organization served sufficient to apply this knowledge to the problems assigned.

Knowledge of procedures and practices of budget formulation in order to identify and use significant data in preparing budget estimates and to analyze program and accounting details. Knowledge of recordkeeping procedures adequate to maintain commitment records for allotments such as travel, program support, and training.

Ability to analyze statistical and narrative information; ability to perform statistical-clerical computations involving percentages, ratios, averages, etc.

Knowledge of NRC personnel rules, regulations, and procedures sufficient to advise on the preparation of position descriptions, evaluation of grade levels using the NRC benchmark evaluation system; knowledge of NRC personnel guidelines sufficient to provide day-to-day routine types of information to employees and supervisors regarding employee relations, proper preparation of all forms comprising personnel salary exceptions, and other similar personnel related items.

Ability to gain cooperation and cooperate with others.

Ability to gather, assemble, and analyze facts, draw conclusions and devise solutions to the assigned problems.

Ability to make oral and written reports and presentations, and prepare graphs and charts clearly, concisely, and effectively.

Ability to effectively convey ideas and methods to others in order to train and assist employees in properly following correct administrative procedures.

CONTACTS

90

Daily contacts with various levels of Division and Office personnel to explain and interpret administrative procedures and policies; to obtain and provide information involved in administrative reports; recommend changes in organizational structures and staffing; recommend changes in local administrative policies and procedures; provide information in regard to budget allotments and past and current expenditures; provide information on preparing necessary documentation for personnel actions; and provide basic day-to-day information on personnel related areas.

Frequent contacts with supervisors and line managers in the organization to obtain information necessary for preparing personnel actions; to receive input for budget formulation and consolidation.

Occasional contacts with personnel at the division or office director level to give and to receive information regarding the administrative management of the organization, personnel matters, budget matters, etc.; to explain and support recommendations concerning administrative matters.

RESPONSIBILITY FOR DECISIONS

115

Supervision Received

Chief, Program Support Branch.

General Supervision "B".

Independent Action

Certifies the availability of funds for travel, technical training, equipment, and overtime based on specific guidelines.

EVALUATION OF GS-1 - 15 POSITIONS

Recommends:

Travel, technical training, personnel services, and equipment budgets to organization director, based upon estimates and projections from line managers.

Changes in organization structures; methods for improving manpower utilization of manpower resources; new or revised procedures needed to solve problems of an administrative nature.

Work Accepted Without Review

Provides information to employees in the assigned organization on day-to-day routine personnel matters.

Decisions Made Independently:

Within study area, selects appropriate techniques for gathering data, analyzes data, and devises solutions to problems.

Provides central mail and file services, procedures for handling classified material, correspondence procedures, and similar types of procedures within guidelines set by NRC.

Determines need and methods for training organization employees in administrative policies and procedures.

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SUPERVISION EXERCISED 20

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One Administrative Assistant.

One File Clerk.

One Clerk.

One Clerk-Typist.

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WORKING CONDITIONS 5

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Normal office conditions.

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EFFORT 5

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Normal administrative.

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TOTAL SCORE 525

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CONTRACT ASSISTANT, GS-1106-11

## BENCHMARK

## FUNCTIONAL STATEMENT

Serves as focal point for contract administration and processes within a major program office of the NRC. Working in collaboration with managers and supervisors of the program office, and within the framework of guidance from the contract division of the Office of Administration and the Department of Energy contract authorities, coordinates the practices, procedures, and administration of contracting activities within the program office. Services contracted for involve such matters as technical assistance, research studies, and fact finding and analysis regarding nuclear safety and public health functions of the program office.

## REGULAR DUTIES

Under the aegis of master inter-agency agreements and contracts administered by the Department of Energy, based upon input from scientific and technical personnel, prepares the necessary paper work for services to be performed by the national laboratories. Makes arrangements for such services within the provisions of the master agreements and contracts controlled by the Department of Energy. In collaboration with program office scientific and technical staff, reviews performance under such agreements and recommends corrective actions on administrative aspects when appropriate performance is not achieved.

Coordinates with and represents the program office in the execution of contract documents by the Division of Contracts. Participates in contract negotiations which are held under the purview of the Division of Contracts. May serve as chairman, secretary, or member of negotiating boards and selection panels, subject to guidance and control from the Division of Contracts.

Advises and consults with staff of the program office on administrative aspects of planning for, defining requirements, and developing the approach for contract actions. Reviews contract requests from staff of the program office to assure compliance with NRC policy and Division of Contracts requirements prior to forwarding such requests to the Division of Contracts. Prepares proposed contractual documents and other supporting information and forwards them to the Division of Contracts.

Compiles and assembles data on contractual activities engaged in by the program office for information of high level management and the Division of Contracts.

Represents the program office on contract matters when dealing with other organizations of the NRC. Is assigned as the program office representative to a variety of NRC committees and task forces to assist in the development of NRC guidelines for contract administration.

Prepares comments for the program office on proposed new procedures within NRC dealing with contract matters. Recommends, drafts, and implements internal procedures for carrying out the program office's responsibilities in the contracts area.

## ANALYSIS

## BASIC SKILLS

290

Sufficient knowledge of laws, executive orders, Federal and NRC Procurement and Property Management Regulations, and business administration to recognize their applicability to specific procurement and contract actions within the program office.

Knowledge of contracting and procurement practices and methods sufficient to carry out the program office's responsibilities for development of contract and procurement specifications and the monitoring of such actions within the guidelines and policies of Division of Contracts and the Department of Energy contractual authorities.

Demonstrated ability to prepare, edit, or clarify specifications for a variety of articles or services and equipment.

Demonstrated ability to participate in negotiations for the purpose of reaching mutual agreements on contract provisions. Ability to communicate orally and in writing.

Ability to translate a general requirement into a definitive statement expressing the respective obligations and rights of the parties to a contract in clear and precise terms.

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CONTACTS

105

Frequent contact with all levels of the program office management to provide guidance, assistance, resolution of problems, and to obtain contract requirements and data on a variety of contractual activities, such as exploring and defining requirements, developing or clarifying specifications, resolving varying staff positions, policy interpretation, or generally advising on contract and procurement matters.

Frequent contact with vendors, prospective bidders, and with contractor officials to discuss procurement and contracting requirements.

Frequent contact with the staffs of the Division of Contracts and contract officials of the Department of Energy for the purpose of resolving or determining the legal aspects of actions proposed or taken.

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RESPONSIBILITY FOR DECISIONS

120

Supervision Received

Chief, Administrative Branch of a major program office.

General Supervision "B".

Guides are the NRC Management Directives System, Executive Orders, Federal Procurement and Property Management Regulations, Comptroller General Decisions, and other applicable NRC policies and procedures relating to procurement and contracting.

Independent Action

Prepares supporting documentation for contract files, statements of reasonableness of costs, determinations, and findings.

Interprets NRC Contract Division and DOE policy and requirements and advises program office personnel on matters pertaining to procurement and contracting.

Makes decisions for the program office on procedural matters arising in connection with procurement and contracting activities within the framework of established policy or regulations.

Responds to inquiries from prospective bidders, interprets terms and conditions of invitations.

Invites necessary contractual actions or revisions thereto and takes program office action on approved contract actions as appropriate.

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SUPERVISION EXERCISED

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None.

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WORKING CONDITIONS

5

Normal.

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EFFORT

5

Normal.

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TOTAL SCORE

525

LICENSING ASSISTANT, GS-0301-11

## BENCHMARK

## FUNCTIONAL STATEMENT

Serves as direct support to the Branch Chief and Project Managers within the Branch by handling all administrative aspects of reactor licensing projects. Reviews and administratively processes to final action all aspects of applications for operating licenses and amendments to licenses for both non-power and power reactors; also processes necessary work for non-license (government-owned) nuclear facilities.

## REGULAR DUTIES

Reviews nuclear facility license applications and amendments to applications to establish that the required non-technical safety and environmental data submitted by applicants are present, complete, accurate, and in conformance with applicable NRC regulations as provided in Title 10, Code of Federal Regulations. Also reviews safety and environmental data to assure that data necessary to make appropriate findings and conclusions are present. Originates correspondence to applicants and licensees advising them of additional information required, as necessary.

Serves as focal point in the branch as the most knowledgeable person on administrative aspects of NRC rules, regulations, and procedures applicable to the licensing process.

Reviews revisions to the Commission's rules, regulations, and procedures to determine procedural effects on the licensing process and to devise administrative methods of implementing new requirements, where necessary.

Reviews all safety evaluations and proposed technical specifications (or technical specification changes) for completeness as to administrative procedural requirements. Reviews technical specifications or changes versus (1) existing technical specifications (if facility is currently operating), (2) incoming request from applicant, and (3) Project Manager's proposed changes, to detect the appearance of inconsistencies. Prepares license or license amendment, Federal Register Notice, and a letter to the applicant forwarding a signed original of the license.

Responsible for incorporation into the license documentation those provisions, requirements, conditions, and limitations in technical, financial, procedural, or organizational areas required by the Commission's regulations for construction or operation of the subject nuclear facility. Verifies that various requirements prescribed by other NRC personnel such as indemnity requirements and license fees are in order. Originates memorandums and other forms of correspondence to appropriate NRC Divisions requesting such reviews.

Originates and processes correspondence to Federal, State, local officials, or other individuals, involving the projects assigned, on matters relating to the safety and environmental aspects of those projects.

Prepares hearing case records and indices for the Atomic Safety and Licensing Boards and other parties involved in public hearings conducted on post-operating license actions. Assures that technical staff testimony is compiled for licensing actions which result in a hearing. Responsible for researching official NRC records to produce documents associated with issues to be covered in hearings and for providing these documents for the hearing proceedings. Also provides for shipment of documents to and from hearing site.

Attends meetings with applicants/licensees in order to brief them on administrative procedures required by 10 CFR and other requirements for providing technical data.

Assists branch project managers in monitoring project schedule status and initiates necessary reports, correspondence, and corrective actions for approval by the project managers. Responsible for managing and scheduling administrative reviews of applications (e.g., financial, indemnity) so that they will coincide with the project manager's technical schedule for the application. This is necessary to assure that all reviews (both technical and non-technical) can be completed within the required time frame.

Develops branch control systems to assure that administrative procedures are carried out. Assists branch chiefs and project managers in assuring that procedures and guides are appropriately utilized.

Performs searches of files and reviews documents in order to provide information to the Office of Administration to fill requests under the Freedom of Information Act.

Has responsibility for initial control and subsequent review of requests from licensees and vendors for withholding of certain proprietary information from public disclosure pursuant to 10 CFR Part 2. Prepares letters for branch chief's signature to licensees and their vendors granting, denying, or requesting additional justification for applications for withholding documents from public disclosure.

Assists branch chief by preparing personnel action requests and by taking a primary role in the recruitment and training of branch clerical employees. Provides orientation to all branch personnel on procedural and organizational requirements, conditions, provisions, and limitations imposed by Commission regulations and policy which are applicable to the licensing process.

Prepares and maintains current status of records of license applications and amendments received and actions taken on assigned projects for ready reference in answering queries from applicants, the public, and the NRC staff.

### ANALYSIS

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#### BASIC SKILLS

290

Knowledge of the procedures associated with nuclear facility licensing activities sufficient to administratively process all aspects of nuclear facility licenses or license amendments.

Knowledge of the Atomic Energy Act of 1954, as amended, 10 CFR Parts 50, 51, 70, 71, 30, 40, 140, 170, 2.9, 20, and 55 and any other applicable regulatory guides sufficient to serve as the most knowledgeable person in the branch on NRC rules, regulations, and procedures applicable to the nuclear facility licensing process.

Skill in analyzing and interpreting a myriad of ever-changing procedures, rules, regulations, etc., pertaining to the licensing process sufficient to coordinate administratively assigned licensing projects. Ability to review changes in Commission rules, regulations, etc., and to determine which changes impact the licensing process and how these changes can best be implemented.

Knowledge of technical terminology associated with nuclear power plants sufficient to review technical areas of the license applications and NRC safety evaluations for completeness and for inconsistencies when compared to (1) existing technical specifications, (2) incoming request from applicant, or (3) project manager's proposed changes.

Working understanding of legal principles relating to licensing activities in order to handle day-to-day activities with OELD and to resolve problems affecting the processing of the license applications.

Management skills sufficient to plan, coordinate, and direct the administrative processing of many license applications and to integrate a variety of information into well-organized, clear, concise, and meaningful licensing documents and correspondence.

Knowledge of Federal and State regulations, acts, and policies associated with the construction and operation of nuclear reactors/facilities, such as the National Environmental Policy Act. Knowledge of the Administrative Procedures Act relating to the requirements for preparation of information for conduct of public hearings sufficient to compile technical staff testimony and case records and indices for public hearings conducted on post-operating license hearings.

Ability to establish and maintain record systems. Familiarity with the Freedom of Information Act (FOIA) to avoid unnecessary conflicts in processing of the proprietary requests and assuring the Commission's fulfillment of its requirements for requests under the FOIA.

Ability to deal with various levels of NRC personnel in order to accomplish responsibilities involving the coordination of the licensing process and issuance of the licensing action.

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#### CONTACTS

100

Continuous contacts with attorneys in the Office of the Executive Legal Director on pending licensing proceedings. Contacts are for the purpose of securing concurrence on proposed licensing actions and clarifying questionable items as related to procedural or administrative matters.

Frequent contact, through meetings and telephone conversations, with managerial staff of licensees, applicants, and intervenors and their legal counsel relative to adequacy of data submitted, procedural matters, status of applications, and to convince them of the necessity of and reasons for submission and revision of required information, documents, and procedures. Must convince applicant/licensee management and technical staff that submission or revision of information and documents is required by law, regulation, or policy, despite possible expenditure of additional time, staff effort, and money on the part of the applicant/licensee.

Frequent contacts with NRC technical staff and supervisory personnel of other divisions and offices. Contacts are for the purpose of clarifying questionable items, reconciling divergent views, and securing concurrence on administrative aspects of proposed licensing actions. Must convince NRC personnel that additional information and documentation is needed to complete the record for licensing purposes.

Occasional contact with appropriate representatives of Atomic Safety and Licensing Board Panel, Office of the Secretary, and with the staff of the Advisory Committee on Reactor Safeguards to coordinate administrative aspects of licensing matters referred to these groups and clarify actions processed by them.

Occasional contact with the staffs of Federal, State, and local agencies and members of the public having an interest in a particular licensing matter. Contacts are for purpose of providing requested information.

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**RESPONSIBILITY FOR DECISIONS**

125

Supervision Received

Branch Chief.

General Supervision "B".

Guidelines are CFR Title 10, NRC Guidelines, NRC Manual, the Administrative Procedure Act, Freedom of Information Act, and local operating procedures (such as the Licensing Assistant Handbook) that are both written and oral.

Independent Action

Reviews nuclear facility license applications and amendments to applications to establish that the required non-technical safety and environmental data submitted are presented in conformance with applicable NRC regulations and guides.

Maintains cognizance of the most up-to-date NRC rules, regulations, and procedures applicable to the licensing process. Reviews revisions to Commission rules and regulations and ascertains whether or not they are applicable to the administrative procedures of the licensing process.

Implements changes to current administrative procedures to assure that licensing actions and their related notifications in Federal Register and to others are completed in accordance with new rules.

Incorporates all conditions, provisions, requirements, and limitations, as provided by technical personnel, related to the licensing action into the license documents for signature. Determines that the format and wording of such conditions, etc., are in accordance with Commission regulations.

Reviews technical portions of the licensing document to detect administrative and procedural inconsistencies, to assure completeness, and correct findings as required by Title 10 CFR.

Originates memoranda requesting administrative reviews such as financial qualifications review and license fee reviews in order to coordinate the completion of all aspects of the licensing review within the established time schedule.

Determines the proper notifications that should be made regarding the license applications and those agencies, groups, and individuals that should receive such notifications.

Originates and processes correspondence to the applicant and Federal, State, and local officials regarding the assigned licensing projects. Correspondence covers the administrative and procedural aspects of the assigned licensing projects.

Resolves day-to-day differences with other organizations that arise during the coordination effort necessary during the licensing process.

Prepares letters to licensees and their vendors granting, denying, or requesting additional justification for applications for withholding documents from public disclosure.

Recommends:

Improvements in the administrative processing of license applications.

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SUPERVISION EXERCISED

None.

WORKING CONDITIONS	5
Normal Office Conditions.	
EFFORT	5
Normal.	
TOTAL SCORE	525

TECHNICAL WRITER, GS-1083-11

## BENCHMARK

## FUNCTIONAL STATEMENT

Organizes, reviews, edits, and writes highly technical material for proposed regulations, criteria, guides, standards, and codes concerning the safety and environmental aspects of nuclear energy for a major program office. Drafts answers to general and technical inquiries from Congress and the public. Under the direction of top and middle management of the program office, writes and edits policy statements to clarify issues of major importance to the NRC.

## REGULAR DUTIES

Reviews and edits technical reports, proposed regulations, criteria, guides, draft standards, and codes developed by technical staff to provide clarity and consistency of format. Makes appropriate changes as necessary to improve the public impact, clarity, and grammatical accuracy of the information.

Under the direction of program office top and middle management, writes and edits policy statements to clarify issues of major importance to the Commission. These statements include major Commission policy papers and speeches to clarify existing policy or to introduce new policy positions.

Coordinates development and preparation of the program office portions of special reports. Includes writing, editing, organizing, resolving comments with program office top and middle management, and interfacing with other NRC Offices.

Organizes and writes technical reports and correspondence using technical information provided by members of the program office staff. Organizes highly technical material so as to present this material in a straightforward, clear, and concise manner without ambiguity as to meaning.

Works closely with top and middle management and staff members of the program office in developing responses to inquiries from Congress and the public. These inquiries may require general responses or very detailed, technical responses and, in all cases, must clarify issues before Congress and the public.

## ANALYSIS

## BASIC SKILLS

290

Extensive experience in the field of technical writing adequate for accomplishment of writing and editing work which is simultaneously complex, varied, and highly technical.

Ability to organize and present major policy items in clear, concise written form suitable for Commission review. Ability to organize and draft material suitable for response to Congressional or public inquiries.

Skill in organization and presentation of highly technical material in a clear, concise, and understandable written form.

Thorough knowledge of English grammar, sentence structure, and punctuation.

Knowledge of the technical terms and expressions used in the technical fields and an understanding of the principles of these fields within the program office sufficient to organize, develop, and draft technical material for written or oral presentation.

Knowledge of the types of activities engaged in by the program office sufficient for use in developing and drafting policy papers, speeches, and responses to Congressional or public inquiries.

Knowledge of the organization and format of the Code of Federal Regulations, Government Printing Office Style Manual, regulations, criteria, guides, standards, and codes developed by program office technical staff sufficient to provide guidance and counsel to those staff members on technical writing and format questions.

## CONTACTS

105

Continuous contact with Division Directors, Branch Chiefs, and technical members of the program office in connection with technical writing and editing activities to obtain and clarify information and to explain reasons for editing changes and clarifications.

Frequent contact with Division Directors and other top management of the NRC staff to obtain endorsement and concurrence on draft technical material, policy statements, and responses to Congressional and public inquiries prepared by incumbent.

Frequent contact with staff members of other program offices for purposes of discussing the wording of draft technical material and resolving comments.

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**RESPONSIBILITY FOR DECISIONS**

120

Supervision Received

Chief, Administrative Branch of a major program office.

General Supervision "B".

Administrative guides are NRC Management Directives System, Code of Federal Regulations, Federal Register, office policy, and agency policies. Operational guides are in the form of memoranda or oral directions.

Independent Action

Assembles, organizes, and drafts technical reports, policy statements, speeches, and correspondence, as assigned.

Responsible for making judgments as to the adequacy of various proposals for wording changes for assuming clarity and correct interpretation of written material.

Recommends to all levels of program office management changes or improvements in format, organization, and content of reports, regulations, criteria, guides, standards, and codes based upon technical writing considerations.

Makes appropriate changes in written technical material to improve the public impact, clarity, and consistency and to make the material more understandable.

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**SUPERVISION EXERCISED**

None.

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**WORKING CONDITIONS**

5

Normal office conditions.

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**EFFORT**

5

Normal.

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**TOTAL SCORE**

525

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EVALUATION OF GS-1 - 15 POSITIONS

REFERENCE LIBRARIAN, GS-1410-11

BENCHMARK

FUNCTIONAL STATEMENT

As a Reference Librarian in the library which services all of the NRC, provides reference, literature searching, and bibliographic services and assists in providing interlibrary loan services. Subject matter involves broad scientific, engineering, technical, regulatory, and administrative areas encompassed in the NRC mission.

REGULAR DUTIES

Analyzes inquiries received from clientele to determine the specific subject matter involved; determines reference sources and services that cover this subject area; searches to identify pertinent information/documents needed to satisfy the requester's needs. Performs extensive literature searches using a computer system and various dial-up commercial based information data banks. Reference and literature search can be very extensive, involving in-depth discussion with the requester to understand his/her needs and searches of related subject matter areas in which the relevance to the request is not obvious or bibliographies are not directly applicable.

Identifies appropriate sources of information/documents needed by the Headquarters staff that are not available in the Library; arranges to obtain required information/documents from other libraries or from other information resources; provides reference assistance to other libraries or organizations or refers requesters to other appropriate Government sources.

Instructs readers in the use of the book catalog, indexing and abstracting services, reference books and services, and in the use of the computer reference search system and dial-up data systems and microform equipment.

Performs in major bibliographic research and in the preparation of formal bibliographies for publication by verifying the accuracy and completeness of bibliographic citations, by editing citations, and/or in the compilation of bibliographies.

Recommends the selection of publications to be acquired by the Library, based on knowledge gained through providing service to Headquarters staff; provides feedback to the catalogers on need for cross-references, additional subject headings, and other matters that will improve the utility of the book catalog.

ANALYSIS

BASIC SKILLS

320

Knowledge of the theory, principles, and techniques of library science sufficient to perform professional library functions in a scientific and technical library in a timely and professional manner. This knowledge is normally acquired through a master's degree and significant progressive experience in a scientific or technical library or equivalent experience.

Knowledge of scientific and technical literature, the terminology of sciences and technologies, the Commission's programs and the subject specialties of Headquarters staff, and the ability to discuss reference questions with requesters, to determine their specific and general information needs, and to identify information/documents that will satisfy these needs.

Demonstrated ability to use efficiently all the information resources of the Federal Government and the scientific and technical community to satisfy the needs of the Library users.

Knowledge and understanding of the content of a variety of abstracting and indexing and reference services and publications sufficient to provide effective reference, literature searching and bibliographic services, and reader guidance assistance.

Knowledge of information resources within the Federal Government, industry, and public and university libraries sufficient to obtain information and/or documents not available in the Library and to refer requesters from outside Headquarters to appropriate sources.

Knowledge of bibliographic and indexing techniques and sufficient skill and experience in their application to assist in preparing such publications.

Knowledge of the legislative process, information resources, and publication procedures sufficient to obtain legislation and related documents/information.

Knowledge of NRC information programs, procedures and practices, and other NRC programs and policies sufficient to refer inquiries involving sensitive matters to the appropriate individual within Headquarters.

Knowledge of the content and format of the thesauri used in searching with the computer search system and with various dial-up data systems and of the related computer programs, and ability to structure the searches and to operate the equipment effectively.

Demonstrated ability to communicate orally and in writing while providing reference and literature searching services.

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## CONTACTS

90

Continuous contacts, in person and by phone, with all levels of personnel in NRC Headquarters, NRC field offices and contractor organizations, congressional staffs, other Government agencies, foreign governments in the Washington area, industry, universities, and the public for the purpose of providing reference, literature searching and bibliographic services and explaining and interpreting the policies of the NRC and the Library Branch related to information programs.

Frequent contact with professional librarians and publications offices in NRC contractor libraries, other Government agencies, universities, public libraries, and other institutions to obtain or provide documents.

Frequent contact with the general public in responding to requests for documents or information.

Occasional contact with the telephone company, the Oak Ridge Computer Center, and other contractor data base centers to resolve problems involving failure of the computer retrieval systems to operate properly.

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## RESPONSIBILITY FOR DECISIONS

115

### Supervision Received

Chief, Reference Section of the Library Branch.

General Supervision "B".

Guidelines are the NRC Management Directives System and division and branch standards, policies, and procedures.

### Independent Action

Determines information needs of requesters and appropriate sources containing pertinent information, conducts searches, and provides information and/or publications to requesters; includes structuring and conducting searches using computer search system and other information data bases.

Determines the source and availability of needed publications which are not in the Library collection and, as appropriate, suggests acquisition or arranges for interlibrary loan.

Determines, within Library policies, the extent of services/publications that should be provided to organizations and individuals outside Headquarters.

Recommends:

Acquisition of publications to be added to the collection, subject areas of the collection that need strengthening, and modifications to the book catalog to improve its utility.

Other possible sources of documents and/or information when not available from the Library.

Changes in procedures needed to provide more effective Library services.

### Work Performed Without Review

Provides reader guidance assistance to Headquarters staff and visitors and instructs clientele in the use of reference tools, computer search system, and microform equipment.

Is responsible for the completeness of bibliographies and accuracy of citations.

EVALUATION OF GS-1 - 15 POSITIONS

NRC Appendix 4130-A  
A&S-120

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SUPERVISION EXERCISED

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None.

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WORKING CONDITIONS

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5

Facilities necessitate unusual amounts of walking.

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EFFORT

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Necessity to lift and carry heavy piles of books, legislation, and/or journals; to climb on and off step stools; and to reach and stoop in removing or replacing materials on shelves.

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TOTAL SCORE

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535

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**EVALUATION OF GS-1 - 15 POSITIONS**

**CONTRACT SPECIALIST, GS-1102-12**

**BENCHMARK**

**FUNCTIONAL STATEMENT**

As one of a staff of contract specialists, participates in preparing, negotiating, and administering contracts for materials and administrative services in support of the Nuclear Regulatory Commission mission and participates with senior contract specialists in the development of Research Contracts.

**REGULAR DUTIES**

Provides guidance and advice to the technical and administrative personnel, in organizational units throughout NRC, regarding planned contracting activities. Constant contact normally exists during the planning stage, when detailed definition of the required end product is difficult to determine in advance.

Evaluates contract requirements, determines their validity, and advises technical personnel on relevant aspects of statutory authority, in-house resources, and necessary coordination with other NRC technical elements and other government agencies.

Determines procurement method, researches procurement regulations, publications, and related procurements; obtains legal advice on alternative methods of procurement. Advises on the criteria for and characteristics of different types of contractual arrangements. Assures that the board's recommendation is fully supported by the circumstances and is properly documented, and prepares such material as Findings and Determinations for Authority to Negotiate.

Participates in developing as definitive a work statement as possible, especially the background and objective portions. Provides guidance as to length and terms of contract that will be most likely to produce appropriate results, relating this to the planned funding. Advises on content of reporting and delivery requirements. Assists in developing government cost estimates, covering staff-year, level of effort, travel, computer, and other costs.

Assures that all appropriate terms and conditions are contained in RFP, including coverage of special situations such as provisions for government-owned property, patents and copyrights, options or exclusions. Advises on real and potential security implications.

Arranges for timely publication of RFP. Clarifies, amends, and/or cancels RFP, responding to written or oral requests and generally assuring that all prospective bidders are treated equally with respect to availability of information, time schedules, and other pertinent matters.

Participates in pre-proposal briefings. Owing to the nonspecific nature of the end product, pre-proposal briefing is frequently conducted to afford prospective bidders opportunity to raise questions and clarify details of the requirements. Assumes responsibility for scheduling such briefing, insuring advance notification to all interested bidders; interprets NRC policies and regulations to prospective bidders; compiles and edits minutes and arranges for their publication as amendment to the RFP.

Participates in evaluation of proposals.

- a. Analyzes proposals for completeness of form and content.
- b. Identifies issues/problems, e.g., conflict of interest, costs, capacity of proposer.
- c. Assumes responsibility for propriety and completeness of applicable procedural requirements, such as timeliness, confidentiality, instructions to board members as to filling out evaluation score sheets, scheduling meetings and conference rooms, notification to all offerors of competitive range determination.

Assures that conflict of interest implications are dealt with at every stage of the contracting process.

Negotiates with potential contractors and prepares contract documents.

- a. Establishes issues to be discussed and NRC position on issues, in coordination with technical, legal, and security personnel.
- b. Schedules and chairs oral presentation(s) by offerors to expand/ amplify/clarify proposals.

- c. Conducts negotiations with those in the competitive range. Interprets NRC contract policies and regulations to contractors. Develops, with assistance from senior specialist, alternative procedures acceptable to both NRC and contractor which avoids impasses in negotiation and overcomes contract objections and problems in conforming to standard procedures. As appropriate, obtains comments from the Office of the Executive Legal Director and Controller, as well as the director of the office involved, and resolves conflicting positions.
- d. Participates in final evaluation. Reviews completed evaluations, identifies any problems/issues, and assures solutions have been identified. Reviews the final evaluation recommendation report to assure it is complete and procedurally correct.
- e. Prepares documentation to support the award, including award synopsis for publication, and letters of award notification to all offerors.
- f. Clarifies contract terms and conditions with successful offeror and prepares contract. Determines necessary modifications to terms and conditions, selects appropriate provisions, resolves any disagreements/questions/comments with contractor, technical, legal, and fiscal personnel.

Administers contracts

- a. Conducts debriefings with unsuccessful contractors.
- b. Participates in resolving protests stemming from contractor selection. Requests and coordinates comments from offerors, technical, legal, and/or administrative personnel.
- c. Monitors contract costs and performance, discussing discrepancies and apparent deviations with technical program personnel and contractor. Resolves cost overrun questions, determining with technical personnel whether contract should be amended, partially terminated, or completely terminated.
- d. Provides guidance and assistance to contractors. Interprets work requirements and specific clauses. Furnishes guidance in report format and procedures.
- e. Prepares modifications.
- f. Participates in resolving problems arising out of the contract dispute clause.
- g. Reviews vouchers.
- h. Coordinates contract close-out procedures.

ANALYSIS

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BASIC SKILLS

375

Thorough knowledge of the legal requirements, underlying philosophy, and techniques of government contracting, as reflected in Federal and agency policies, practices, and procedures, in order to work with contracts from pre-request stage through RFP, negotiation, administration, and eventual termination. This requires knowledge of laws, Executive Orders, Federal and NRC Procurement and Property Management Regulations, business administration, and accounting, with the skill and ability to recognize their applicability to specific procurement actions.

Clear understanding of the NRC mission, organization, activities, and internal relationships in order to spot overlaps and duplications and to assure that the contracts accurately and completely set forth the requirements of the various programs.

Knowledge of industrial sources of supplies, services, materials, and equipment, and of both GSA and military supply systems, sufficient to advise superiors and requesting offices as to sources, or to make determinations as to procurement approach, and to insure that selection and negotiation functions are carried out in the best interest of the Government.

Ability to grasp the essentials of the technical program requirements and to acquire and apply a working knowledge of the technical factors involved. Must be able to translate a general requirement into a definitive work scope expressing the respective obligations and rights of the parties to a contract in clear and precise terms. Must be able to prepare, edit, and clarify specifications for a wide variety of articles, services, and equipment.

Must be able to deal successfully, both orally and in writing, with NRC technical and administrative personnel, vendors, prospective bidders, and any other party to a contract in order to arrive at mutual agreement within governing regulations.

**EVALUATION OF GS-1 - 15 POSITIONS**

Ability to interview potential contractors and make evaluations consistent with selection criteria.

**CONTACTS**

125

Continuous contacts with branch chiefs, technical personnel, and administrative representatives of NRC's divisions and offices about a wide variety of contractual activities, such as exploring and defining requirements, developing or clarifying specifications, resolving varying staff positions, policy interpretation, or generally advising on contract and procurement matters. Knowledge of the facts, flexibility, and application of knowledge of the contracting principles and technical factors involved are essential to elicit cooperation.

Continuous contacts with vendors, prospective bidders, purchasers, and with contractor officials to discuss procurement and contracting matters.

Frequent contacts with contractor officials and representatives for the purposes of negotiating and administering contracts, requiring tact, flexibility, persuasive ability, and the application of logic and substantive knowledge.

Frequent contacts with key personnel of other Government agencies to secure cooperation on contract and procurement matters.

Frequent contacts with the staff of the Office of the Executive Legal Director for the purpose of resolving or determining the legal aspects of actions proposed or taken.

**RESPONSIBILITY FOR DECISIONS**

130

Supervision Received

Chief, Technical Assistance Branch.

General Supervision "B".

Guides are Federal Procurement and Property Management Regulations, Comptroller General Decisions; agency procurement and contracting policies, procedures, and practices; NRC organizational and functional data, and the Management Directives System.

Plans, in conjunction with senior contract specialist and supervisor, the negotiation approach, and consults with the supervisor during the most difficult parts of the negotiation.

In addition, the contract specialist must apply an extensive body of knowledge, based on experience, of Federal contracting practices including interpretations and acceptable adaptations of governing regulations.

Independent Action

Evaluates adequacy of documentation received in written form and/or proposed at meetings of selection boards and panels. As Division of Contracts representative, it is the contract specialist's responsibility to assure that the legal requirements are understood and accepted by all NRC personnel involved, including high-level technical employees unfamiliar with the details and implications of such requirements and unaccustomed to such restraints.

Prepares, modifies, executes, administers, and terminates contracts and interagency agreements as provided for in NRC's Delegation of Authority. Receipts for goods and services and administratively approves payments liquidating obligations.

Determines the adequacy of procurement requests with respect to description, justification, if required, delivery requirements, etc., and obtains additional information as needed. Determines procurement approach.

Prepares supporting documentation for contract files, statements of reasonableness of costs, determinations, and findings.

Interprets policy and advises divisions and offices on matters pertaining to procurement and contracting within the framework of established policy or regulations.

Coordinates costs and provisions with Office of Executive Legal Director and program divisions or offices.

Assembles data, appraises contractor performance, prepares summaries and position papers.

Work Accepted Without Review

Responds to inquiries from prospective bidders, interprets terms and conditions of invitations.

Invites necessary contractual actions or revisions thereto and takes final action on approved contract actions as appropriate.

Prepares and modifies contract specifications to achieve desired results, advises clients on contract specifications to achieve desired results, and advises clients on contractual provisions, delivery terms, etc.

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SUPERVISION EXERCISED

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None.

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WORKING CONDITIONS

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Normal.

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EFFORT

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5

Normal.

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TOTAL SCORE

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640

Approved: April 30, 1980

## PERSONNEL MANAGEMENT SPECIALIST, GS-0201-12

## BENCHMARK

## FUNCTIONAL STATEMENT

Provides staff advice, assistance, and services to operating officials in all phases of Federal personnel administration encompassing trades, crafts, clerical, administrative, scientific, and technical positions. (Normal assignment is 300 to 400 positions.)

## REGULAR DUTIES

Reviews and analyzes the programs and activities of assigned organizational components of the NRC to determine how such programs and activities can be more effectively accomplished through improved personnel management.

Initiates discussions with management and supervisory officials at all levels to plan, promote, and implement improved personnel management concepts. Acts as a consultant and adviser to line managers on new or revised policies and procedures. Develops acceptable alternatives for accomplishing the immediate and long-range personnel needs of the assigned organization when established procedures do not meet the particular needs of the organization.

Provides authoritative interpretations of existing personnel rules, regulations, policies, and procedures to managers, supervisors, and all levels of employees in the assigned organizations. Provides counseling to all employees in the assigned organizations on all aspects of personnel policies and procedures by answering employees' questions and giving employees advice. Acts as counsel and adviser to line supervisors and managers in such areas as organizational changes and effective staffing patterns, reductions-in-force, grievances, promotion actions, etc.

Provides day-to-day personnel management services to assigned organizational components. Such services, usually provided on a case basis, include:

a. Recruitment Activities

In coordination with the selecting official, prepares qualifications requirements for approved position descriptions and implements the vacancy announcement system accordingly.

Is primarily responsible for recruitment to fill specific vacancies within the assigned organizational components by providing the selecting official with a well-qualified group of candidates.

Coordinates with recruitment branch personnel in order to take maximum advantage of NRC applicant files and special nationwide recruiting efforts performed by the recruitment branch.

b. Wage and Salary Administration

Consults with and advises supervisory staff and employees on all matters pertaining to wages and salaries. Administers and independently interprets existing wage and salary administration policies. In cases where established policies do not meet situational needs, formulates sound and prudent courses of action in conjunction with line management to accomplish the desired results.

c. Staffing

Works with line managers and supervisors to determine staffing patterns within the organizational components which will most effectively and efficiently meet the goals of the organization.

Works with supervisory staff and employees to alleviate placement problems which might occur.

d. Employee Relations

Provides first point of contact between line officials and the Division of Organization and Personnel in regard to employee relations matters such as incentive awards, counseling, grievances, disciplinary actions, etc. Acts as initial counselor and advisor to line officials and employees in such matters. When cases become more difficult and complex and therefore require more extensive formal work, refers case to Labor Management and Employee Relations Branch.

e. Training and Development

Consults with management officials, supervisors, and employees on training and development matters. Provides information and advice about training and development opportunities. Recommends various training programs to meet organizational or individual employee needs. Refers individuals to training and development branch when further assistance is required.

Responds to employees' questions and initiates discussions with employees to assist them in their understanding and appreciation of personnel policies and practices. In these discussions, provides professional advice to help employees on a wide range of personnel matters and helps to assure that employees receive the soundest professional assistance in accomplishing their job requirements and in pursuing their career goals.

Utilizes the knowledge and information gained from day-to-day experiences and contacts within the organization in order to develop recommendations for establishing new programs and activities or for revising established programs, policies, and procedures. Takes initiative in explaining the needs for such changes to managers within the assigned organizations and provides active support for the accomplishment of such changes. As assigned, serves as the leader for special group efforts to accomplish these tasks, providing planning, direction, and coordination.

As a member of the professional staff of the Division of Organization and Personnel, serves on special study groups to conduct analyses and make recommendations pertaining to general personnel management matters such as organization and staffing, manpower utilization, policies, procedures, etc.

### ANALYSIS

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#### BASIC SKILLS

375

Thorough knowledge of the theories, principles, policies, and practices of personnel administration and management sufficient to apply such theories, policies, and practices to a wide variety of problems and situations.

Knowledge of the NRC specific policies, procedures, and techniques pertaining to recruitment, job evaluation, employment, grievances, selection, placement, employee appraisal and development, leave, retirement, and application of the Civil Service Commission's policies, procedures, rules, and regulations relating to the personnel administration in the excepted service, as well as a general knowledge of the application of Standardized Government Travel Regulations. Must understand the underlying statutes; Executive Orders; Comptroller General and GAO decisions and rulings; Civil Service Federal Personnel Manual rules, regulations and procedures; as well as internal NRC policies, practices, and procedures to provide authoritative advice and assistance on a wide variety of personnel matters.

Knowledge of the organization and functions of assigned program areas and a general knowledge of NRC organization as a whole sufficient to understand organizational relationships and lines of authority and to insure sound recruitment, placement, and job evaluation judgments.

Skill in clear presentation (oral or written) of instructional and informational material, reports, studies, and recommendations on personnel matters of major significance.

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#### CONTACTS

125

Continuous contacts with office and division directors, their principal assistants and subordinate supervisors on matters relating to personnel management including selection, hiring, training, utilization, reassignment, promoting and separating personnel, evaluating positions, employee relations, employee benefit plans, grievances, and disciplinary matters.

Frequent contacts with employees at all levels to provide information on specific personnel policies and procedures and counseling in a variety of matters, such as possible grievances, benefit plans, desired reassignments, and transfers.

Frequent contacts with personnel officers of other government agencies relating to personnel problems such as mutual recruitment problems, wage and salary administration problems, and the transfer and travel arrangements for employees of other agencies to NRC. Also contacts managers and key officials of State employment offices and placement officers of universities to schedule and conduct interviews and discuss recruitment matters.

Frequent contacts with members of the public seeking information on employment possibilities in the Nuclear Regulatory Commission.

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#### RESPONSIBILITY FOR DECISIONS

130

##### Supervision Received

Personnel Management Specialist (Team Leader).

General Supervision "B".

Guidelines are written policies and procedures contained in NRC manual, issuances of the U.S. Civil Service Commission, and Comptroller General Decisions, which require analysis and interpretation. The work is also guided by management policies, philosophy, and practices which are not available in written form.

Independent Action

Approves for the Division of Organization and Personnel and the establishment of all jobs and personnel actions involving the selection, promotion, reassignment, change to lower grade, and separation (except for cause) for grades up to and including GS-14.

Analyzes individual personnel management problems for their relationships to existing policy and practices and their significance to the accomplishment of "operating" programs and program management, determining among possible alternatives the most appropriate course of action. Provides professional counsel and recommendations to management and supervisory officials in determining the courses of action to undertake.

Analyzes personnel management practices in various offices and divisions, consulting with appropriate officials and employees, and making recommendations for modifications of new activities.

Provides professional guidance, counsel, and recommendations to employees in the resolution of personal problems, in the furtherance of employment interest, in the development of career objectives, and on other personnel activities.

Recommends action to be taken in individual personnel cases involving exceptions to normal policies and practices.

Recommends development of new or revised personnel policies, standards, and practices based upon day-to-day personnel management experience.

In conjunction with operating officials, determines position requirements and candidate evaluations and certifications through grade GS-18.

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SUPERVISION EXERCISED

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None.

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WORKING CONDITIONS

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5

Normal office conditions.

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EFFORT

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5

Normal administrative effort.

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TOTAL SCORE

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640

## EXPORT/IMPORT LICENSING OFFICER, GS-301-13

## BENCHMARK

## FUNCTIONAL STATEMENT

Reviews applications for licenses to export or import source material, special nuclear material, byproduct material, and production and utilization facilities, components, and special materials to determine compliance with appropriate rules and regulations of the Commission and, if in conformance, prepares export licenses. Prepares correspondence to licensees and other Federal agencies, staff analyses, and Commission papers regarding export applications.

## REGULAR DUTIES

Coordinates the review and evaluation within NRC and between NRC and other Federal agencies of license applications and communications pertaining to the export and import of source, special nuclear, byproduct, and other nuclear related materials, components, and production and utilization facilities. Determines the adequacy of information presented in license applications as required to meet agency regulations, the provisions of the Atomic Energy Act, the Nuclear Nonproliferation Act, International Atomic Energy Agency Agreements, and other governing guidelines and legislation.

Maintains liaison with the Offices of the Executive Legal Director, Nuclear Material Safety and Safeguards, Inspection and Enforcement, and other offices with responsibilities for export/import controls on assigned license application cases.

Maintains liaison on assigned cases with the Department of State, Department of Energy, Department of Commerce, Arms Control and Disarmament Agency, and with other Federal agencies, such as General Accounting Office and Customs Service, which review and comment on export of nuclear related material and equipment.

Evaluates license analysis reports and recommendations submitted to NRC by various agencies of the Executive Branch and takes appropriate action to recommend issue of licenses or coordinate preparation of staff recommendations to the Commission.

Coordinates the preparation of export and import licenses and license amendments. Reviews licenses for accuracy and for conformance to all licensing conditions, regulations, and statutory requirements. Recommends final licensing actions to the Assistant Director for Export/Import and International Safeguards or to the Commission.

Prepares reports and analysis papers for the use of the Commission, for other Federal agencies, and in response to Congressional requests for information about the export and import of nuclear material.

Communicates independently with license applicants and representatives of other governments to obtain additional or supplementary information to complete licensing reviews; represents the NRC in meetings and contacts with applicants and licensees to obtain and exchange information bearing on license reviews.

Prepares Federal Register notices involving licensing actions according to regulatory and statutory requirements. Prepares Congressional notices, where required, for licensing actions.

Participates in the development of recommendations for proposed legislation and the development of recommendations for changes in export/import licensing requirements and procedures by drafting portions of such recommendations, such as background history and/or experience data.

Assures appropriate inputs and changes are made to the NRC automated record system for assigned licensing actions for the recording of all licensing data, and assists in coordinating the interface between the NRC records and the Nuclear Materials Information System maintained by DOE. Provides liaison with I&E, NMSS, DOE, and other systems users for reporting and data collection and for the maintenance of the international tracking system for nuclear material.

## ANALYSIS

## BASIC SKILLS

430

Knowledge of the requirements of the Atomic Energy Act, as amended, the Nuclear Nonproliferation Act, and other statutes governing the transfer of nuclear materials and equipment abroad sufficient to recommend correct legal action on export/import license applications.

Knowledge of regulations, NRC policies, practices, and procedures governing the authorization for export and import of nuclear material and equipment sufficient to assure that recommended export/import license actions are proper and complete.

Knowledge of technical information sufficient to review and evaluate applications for the export and import of special nuclear, source, and byproduct material and in order to provide day-to-day advice and guidance to other staff members and to license applicants.

Knowledge and understanding of the regulations and statutory requirements governing the export responsibilities of various Executive Branch agencies (Departments of State, Energy, Commerce, Arms Control and Disarmament Agency, Customs Service) sufficient to communicate and coordinate with those agencies in obtaining recommendations, certifications, and information with respect to export cases.

Knowledge of NRC and DOE automated data requirements for the maintenance of licensing information, reports preparation, and for the interface between NRC and other agencies in developing and maintaining the international nuclear material tracking system.

Ability to communicate with top management of industry and government in the implementation of licensing requirements for the export and import of nuclear materials and equipment to seek additional information or clarification and to explain licensing requirements.

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## CONTACTS

125

Daily telephone and frequent personal communication with senior business and professional management and administrators and other representatives of industrial firms, both domestic and foreign, making applications for or inquiries concerning licenses for the export or import of nuclear material and facilities or requesting information on NRC export/import programs, policies, and regulations.

Daily communication with NRC officials at the Director, Assistant Director, and Branch Chief level in order to coordinate the review and approval of licensing actions or to resolve questions and exchange information.

Daily contacts with officials at middle and upper management levels in other Federal agencies for the purpose of coordinating or expediting the review of licensing actions or for exchanging information on proposed licensing actions.

Frequent contact with visitors representing foreign business and industrial firms for the purpose of obtaining or exchanging information regarding NRC regulations and procedures and to advise them on licensing requirements.

Occasional contacts with Embassy personnel and other representatives of foreign governments and international organizations to exchange information regarding licensing matters and NRC policies, procedures, and regulations.

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## RESPONSIBILITY FOR DECISIONS

155

### Supervision Received

Assistant Director for Export/Import and International Safeguards.

General Supervision "B". Also receives technical guidance on highly unusual or unprecedented licensing matters from a Senior Export/Import Licensing Officer.

Guided by NRC regulations and applicable sections of the Atomic Energy Act, the Nuclear Nonproliferation Act, and provisions of the International Atomic Energy Agreements. Calls upon technical assistance from NMSS in areas of material accounting and physical security measures to be applied by recipient countries in export cases.

### Independent Action

Determines the adequacy of license applications pertaining to the export and import of nuclear material and facilities and the need for requesting additional information, assurances, and certifications.

Reviews comments and recommendations on licensing actions from various agencies of the Executive Branch, prepares and recommends approvals or disapprovals of licenses, and, where required, coordinates preparation of Commission Action Papers.

Determines the proper conditions to be incorporated into export and import licenses and coordinates with other NRC offices (e.g., NMSS and ELD) in development of licensing conditions in unusual cases.

Identifies and defines problems in the licensing area, suggests solutions, and follows up with appropriate person in an attempt to reach solutions to the problems.

**EVALUATION OF GS-1 - 15 POSITIONS**

NRC Appendix 4130-A  
A&S-150

Assigns docket and license numbers to applications, according to material types, and coordinates the distribution of the applications among the several agencies involved in the review process.

Communicates with senior management and technical personnel of industry, business, or other applicants and with representatives of foreign governments to obtain additional information or clarification of problems pertaining to license applications.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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Normal.

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**EFFORT**

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Normal.

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**TOTAL SCORE**

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720

EVALUATION OF GS-1 - 15 POSITIONS

SENIOR PROGRAM ANALYST, GS-345-14

## BENCHMARK

## FUNCTIONAL STATEMENT

As a Program Analyst in the Analysis and Planning Branch, Office of Management and Program Analysis, is responsible for extensive and complex management studies and analyses which have major impact throughout the NRC, as well as in its relationship with other government agencies, the nuclear industry, and the general public. Such studies and analyses provide Office Directors, the EDO, and the Commissioners with appraisals of and recommendations covering important major areas such as reactor licensing, fuel facility licensing, safeguards, standards, and research and often include assessment of programs and regulations in the nuclear industry and the public utilities. Coordinates the activities, on an ad hoc basis, of one or more OPMA staff members, as well as representatives from other NRC offices assigned to the study.

## REGULAR DUTIES

Performs and coordinates analyses and evaluations of resource allocation studies and proposals of all types to assure the most favorable cost-benefit trade-offs for NRC. Such duties include the development of reports containing alternative strategies; highlighting technical, managerial, and economic considerations; and recommending a course of action considering all pertinent factors so that a policy decision can be made by agency management. For example, may be assigned a study to determine the effect of postulated changes to the duration of the reactor plant licensing cycle on the amount, manpower costs, and steps and organizational distribution of internal manpower resources required within the NRC.

Performs and coordinates the review and analysis of existing and proposed programs to (a) evaluate their demonstrated or potential results in light of alternative programs, (b) assess the fit between stated program objectives and actual or likely accomplishments, (c) identify areas of program overlap and duplication, and (d) identify major gaps where new or increased effort is required.

Defines topics or areas affecting NRC's policies and objectives which require analysis, and recommends that they be pursued. Coordinates resultant study by breaking problem into manageable segments; identifies available resources within and outside of the agency to apply to these segments; schedules completion of assigned tasks; and is responsible for final product.

Responsible for maintaining liaison with personnel performing similar functions in other agencies for the purpose of keeping abreast of current trends, developments, and analytical methodologies. Also responsible for developing and maintaining liaison with industry representatives to facilitate receipt of necessary feedback on effects of proposed agency actions.

Is responsible for organizing working groups to study agency problems. This involves organizing and coordinating the work efforts of senior staff members from the several Offices and Divisions. Defines and delegates assignments to group members and is responsible for insuring that submissions are received in a timely fashion. Evaluates submissions in light of the study objectives and makes such modifications as are necessary and appropriate. Contributes to, and assumes overall responsibility for, the preparation of final working group reports that typically develop policy alternatives for consideration and action by agency management.

Assists the top NRC management in the preparation of presentations, special studies, and testimony as may be necessary. This involves gathering data from a wide variety of sources and subjecting these data to vigorous analyses in order to produce the essential information in a highly concentrated, interesting, and convincing fashion. This requires a continual familiarity with the full programmatic effort of NRC, including an in-depth awareness of major problems and new initiatives. Material may be for briefing of the NRC Commissioners or for use by the Commissioners in Congressional Hearings and meetings.

## ANALYSIS

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BASIC SKILLS

505

Demonstrated ability to perform research studies leading to the development of measures and analytical models for use and application in long-range program planning, evaluation, and executive decision-making.

Substantive knowledge of NRC policies, programs, and functions in order to conduct studies and evaluations.

Demonstrated ability to apply modern operations research and systems analysis methods as they relate to the resolution of a variety of problems of considerable difficulty, often having ramifications that are NRC-wide and involve extremely large amounts of expenditure.

Skill and knowledge sufficient to make definitive and authoritative evaluations of technical programs; to recognize and correlate separate but related data, themes, and trends; to assess the cost/benefit trade-offs of study support requirements. Requires the ability to evaluate technical data and programmatic requirements from reports and memoranda as well as from participation in meetings with technical and administrative personnel.

Working knowledge and experience with management-by-objectives principles, general budgetary procedures, cost accounting, economics, and cost control methods sufficient to perform assigned studies.

Skill in optimizing the NRC's licensing and compliance process to assure effectiveness. Ability to plan and demonstrate in detail how agency programs may be balanced to assure realization of organizational objectives.

Working knowledge of the physical and biological sciences and engineering nuclear physics sufficient for understanding a variety of technical problems as encountered in assigned studies.

Skill in selecting appropriate criteria for evaluations on which management decisions are based. Ability to give proper weight to many qualitative factors involved in weighing and assigning priorities to operational alternatives.

Skill in written and oral presentation sufficient for the presentation of complex technical problems in a form suitable for top-level policy decisions.

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**CONTACTS**

155

Continuous contacts with NRC division and office directors, branch chiefs, and their staffs to discuss organizational, administrative, and technical phases of studies, including such matters as manpower utilization, technical and economic data, licensing and inspection procedures, study findings and recommendations.

Frequent contacts with the Executive Director for Operations, his immediate staff, and the Commissioners to discuss analyses and defend proposals.

Occasional contacts with representatives of other Federal, State, and local agencies to discuss and defend NRC policy positions and to coordinate and resolve problems of common interest.

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**RESPONSIBILITY FOR DECISIONS**

210

Supervision Received

Chief, Analysis and Planning Branch, Information Analysis and Planning Division, Office of Management and Program Analysis.

General Supervision "A".

Guidelines are supervisory guidance on basic policy issues under study which involve policy recommendations. There are few guidelines for this position since it involves policy and program development proposal, but overall NRC policies and programs apply. In accomplishing studies, high professional standards of conduct and independent judgment and performance are expected.

Independent Action

Recommends basic NRC policies, programs, and projects via organizational channels.

Recommends action on programs and policies such as the initiation of new programs or projects and acceleration, expansion, or deemphasis or termination. These programs and policies can affect the basic functions of several major program offices of the NRC.

Work Accomplished Without Review

Selects appropriate study bases and ground rules for projects.

Determines the nature, scope, and format of analytical data required to accomplish the study objective.

Schedules work effort, including arranging for meetings with senior staff personnel to accomplish the study task within established time frames.

EVALUATION OF GS-1 - 15 POSITIONS

Assigns proper weight to qualitative and intangible factors.

Selects appropriate comparative cases to demonstrate the relative advantages and disadvantages of alternatives.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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Normal office conditions.

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**EFFORT**

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5

Normal.

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**TOTAL SCORE**

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880

## SENIOR INTERNATIONAL POLICY ANALYST, GS-345-15

## BENCHMARK

## FUNCTIONAL STATEMENT

As the specialist in International Affairs in the Office of Policy Evaluation, assists the Director, OPE, in the performance of analyses of NRC operations and special projects which impact international activities so as to provide the Director with appraisals of and recommendations on programs, projects, plans, and policies that impact the effectiveness and efficiency of NRC. His recommendations, evaluations, and views concerning international activities are actively sought throughout the NRC, as well as from outside the NRC, and are generally considered to be of an authoritative and expert nature.

## REGULAR DUTIES

As OPE specialist on International Affairs, performs analyses and evaluations of studies and proposals concerning NRC's international responsibilities to assure the most favorable trade-off for NRC. These analyses and evaluations focus on extremely complex and sensitive aspects of NRC's international responsibilities, including export licensing policy, nonproliferation policy, and foreign intelligence review. Such activities involve the development of appropriate and acceptable criteria for evaluation and the application of sound professional judgment. Such duties also include the development of reports that develop alternative strategies, highlight technical, managerial, and political considerations, and recommend courses of action considering all pertinent factors, so that a policy decision can be made by the Commissioners.

Represents the Director and the Commissioners on high-level interagency and international Committees. Contributes to such studies, as task force leader or member, on such subjects as export licensing, nonproliferation, and international safeguards.

Independently reviews and analyzes existing and proposed NRC programs in the international area to (a) assess their budgetary and manpower consequences, (b) evaluate their demonstrated or potential results in light of alternative programs, (c) assess the fit between stated program objectives and actual or likely accomplishments, (d) identify areas of program overlap and duplication, and (e) identify major policy issues involved in the program. Proposes changes to policy, program, budget, and manpower based on results of these analyses.

For use in Commissioners' testimony and presentations, prepares special studies relating to NRC's international responsibilities in such areas as export control, international regulatory cooperation, and nonproliferation matters. This involves gathering data from a wide variety of sources and subjecting these data to rigorous analysis in order to produce the essential information in a highly concentrated, interesting, and convincing fashion. This requires a continual familiarity with all programmatic efforts of NRC that may impact on the international area, including an in-depth awareness of major problems and new initiatives.

## ANALYSIS

## BASIC SKILLS

540

Extensive experience which demonstrates the incumbent's ability to perform as an authoritative expert in analyzing and developing policy alternatives related to extremely complex and specialized nonproliferation issues and export control problems.

Knowledge of nuclear materials, transportation methods, facilities, and safeguards to analyze and recognize major international implications and issues.

Knowledge and extensive experience in dealing with subjects involving highly sensitive matters and use of intelligence information.

Skill in performing independent evaluations and reviews of issues and problems which set precedent or create policy and which frequently involve direct presentations before the Commission and high-level governmental authorities of other Federal agencies, foreign governments, and international agencies.

Skill in written and oral presentation sufficient for the presentation of complex technical and policy problems in a form suitable for top-level policy decisions, including interagency bodies established at the highest levels.

## CONTACTS

Frequent contacts with Commissioners to discuss major organizational, administrative, and technical phases of NRC operations related to NRC's international responsibilities. Must be persuasive, articulate, and professional

in these contacts to demonstrate the validity of conclusions and evaluations obtained by use of analytical techniques, but must display proper regard for all problems, responsibilities, and prerogatives of top-level officials.

Frequent contacts with the Executive Director for Operations and major office directors.

Frequent contacts with high-level representatives of other Federal agencies, foreign governments, and international agencies to discuss, defend, advocate, and evaluate NRC policies and proposals.

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RESPONSIBILITY FOR DECISIONS

225

Supervision Received

Director, Office of Policy Evaluation.

General Supervision "A".

Supervisory guidance is provided on basic issues which involve policy recommendations. There are few guidelines for this position since it involves basic policy formulation, but overall NRC policies and programs apply. In accomplishing studies, high professional standards of conduct and performance are expected. Work is reviewed for conformance to overall established NRC policy.

Independent Action

Formulates and recommends directly to the Director, OPE, actions which may influence and modify basic NRC policies and programs in the international area.

Recommendations and views in the area of international activities are actively sought within and outside of NRC and are generally considered to be of an authoritative nature.

Formulates and recommends to the Director, OPE, actions which may result in the establishment of new programs or policies within NRC.

Work Accomplished Without Review

Independently determines the nature, scope, and format of analytical data required to accomplish the study objective.

Independently assigns proper weight to qualitative and intangible factors.

Independently selects appropriate comparative cases to demonstrate the relative advantages and disadvantages of alternatives.

Independently schedules work effort to accomplish the study task within established time frames.

Serious consequences can follow faulty decisions or erroneous judgment. Decisions must frequently be made in very short time periods while still requiring thoroughness of data collection and analysis. Incorrect weighing of foreign policy, administrative, and legal uncertainties can have very serious effects on both policy results and the attainment of program objectives. Foresight and initiative in developing innovations in policy and program areas can result in significant monetary savings and increased operational effectiveness. Action will frequently be taken in areas involving both wide public interest and major foreign policy concerns, requiring balancing of discretion and candor. Judgments reached by the incumbent will affect directly the public and governmental image of the NRC and its leadership.

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SUPERVISION EXERCISED

None.

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WORKING CONDITIONS

5

Normal.

EVALUATION OF GS-1 - 15 POSITIONS

EFFORT

Normal.

TOTAL SCORE

945

**EVALUATION OF GS-1 - 15 POSITIONS**

**BUDGET CLERK, GS-0501-5**

**BENCHMARK**

**FUNCTIONAL STATEMENT**

Prepares work papers, tabulations and reports on estimates and cost for budget for comparison, review or record purposes, in an office with program responsibility.

**REGULAR DUTIES**

Prepares and maintains the various records of funds committed, obligated and expended. The records are reconciled on a monthly basis with financial statements from the Division of Accounting.

Maintains for each fiscal year a historical summary of all estimates and cost for operating programs to aid managers in developing proposed budget estimates and provide a control or check point for financial limits.

Checks budget estimates, justifications and related matter submitted for the annual budget and midyear review by several divisions, and branches which requires:

- a. Checking for arithmetical accuracy and consistency
- b. Checking for completeness and correctness of reporting format.

Assists in the consolidation of budget and cost estimates which requires:

- a. Showing a breakdown of estimates by operating programs including those which cross organizational lines
- b. Assuring that the estimates are within the limits established for the office.

Collects, compiles and checks financial and supporting narrative from a variety of sources for the purpose of:

- a. Providing information routinely requested
- b. Request for special purposes.

**ANALYSIS**

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**BASIC SKILLS**

165

Knowledge of record keeping practices and procedures; accepted methods of budget consolidation and record keeping; working knowledge of available sources of budget data adequate to perform a variety of duties related to the development and control of the budget.

Ability to maintain record keeping systems which will allow control of program funds.

Ability to locate, select and compile budgetary and cost data into summary or detail form.

Skill in the use of adding machine and calculator.

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**CONTACTS**

50

Continuous contact with all levels of office personnel for the purpose of furnishing routine budgetary information; to verify information and to discuss work assignments.

Occasional contacts with personnel in other offices to obtain, clarify, and correct information necessary to complete assignments or to obtain data.

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**RESPONSIBILITY FOR DECISIONS**

85

Supervision Received

Administrative Officer.

General Supervision "B".

Guidelines are NRC Manual of Instructions and office procedures and instructions or budget activity.

Independent Action

Determines the source of data and the personnel to be contacted to verify and obtain information.

Determines format of work papers for presenting budget data. Identifies and compiles data and estimates necessary for presentation of budget reports and proposed budgets based upon historical data and experience.

Work Accepted Without Review

Machine checking of budget estimates, tabulations and reports.

Correcting of memo discrepancies and arithmetical errors in data prepared by the Divisions.

Clerical review of budget estimates, justifications and related matters.

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SUPERVISION EXERCISED

None.

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WORKING CONDITIONS

5

Normal.

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EFFORT

Normal.

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TOTAL SCORE

310

## PAYROLL CLERK, GS-0544-5

## BENCHMARK

## FUNCTIONAL STATEMENT

Serves as Payroll Clerk in the NRC computer based payroll system. For an assigned block of accounts is responsible for computer input and documentation to ensure that employees are paid in the correct amount, that deductions from gross pay are made and accounted for, that leave earned and used is properly recorded, and that employee files are maintained on a current basis. Also prepares or assists in preparing payroll and related reports. Assigned block of accounts covers 500 limits or more employees working under a variety of appointment and employment conditions including regular, temporary, part time, WAE, term, WOC, summer interns, stay in school, summer aids, statutory, and limited appointments.

## REGULAR DUTIES

Prepares computer input to master employee pay records from source documents which affect employees' pay, affect deductions from pay, and implements check mailing instructions. Source documents include personnel actions such as accessions, terminations, promotions, quality increases, conversions from temporary to permanent status or from part time to full time employment, change of duty station etc.; consultant appointments; authorizations for deductions for health benefits, life insurance, bonds, tax withholding, organization dues, and other deductions; and requests for payment by credit to banks and other financial organizations. Reviews documents to insure data is complete, verifies for accuracy and proper certifications, codes the data and provides computer input to maintain the master records on a current and correct basis.

Receives time and attendance reports and consultant vouchers, audits and verifies such items as overtime, holiday pay, premium pay, night and other differentials and proper certifications. Codes and prepares computer entries from these documents to process payrolls.

Receives computer reports and error listings, traces and corrects errors and enters correct data for reprocessing until all entries are accepted, balances accounts with control codes and batch totals, making necessary adjustments until control totals match and no errors are detected. As required, balances block of accounts with other reports such as health benefits, insurance, disbursement of taxes, payroll distribution report.

Receives and processes corrections after the close of the pay period, checks the data submitted against original submission, and processes in accordance with the nature of the change, insuring correction of all interrelated terms. Makes other retroactive adjustments as required tracing multiple sources of error and involving balance and reconciliation with all interrelated items in the system and reconciliation with the various payroll reports.

Maintains individual employee payroll files which include payroll copies of all personnel items, tax certificates, bond deduction authorizations, correspondence, and other pertinent data on each employee covered by the block of accounts. Records leave of employees transferring into Agency, maintains leave records, certifies as to leave usage and balances for various purposes such as computation of lump terminal leave and preparation of leave transfer forms.

Answers inquiries from employees, personnel representatives, timekeeping and supervisory personnel. Furnishes information on individual employee accounts and general information concerning provisions of regulations and their application to particular situations.

Prepares or assists in the preparation of various payroll reports and assists in the various payroll functions that are performed on a periodic basis such as quarterly and annual balancing of payroll to establish controls and verifying the annual withholding statements, W2 forms.

## ANALYSIS

## BASIC SKILLS

170

Knowledge of Government-wide and NRC payroll and related rules, regulations, and procedures and ability to apply them quickly and accurately to meet payroll schedules and deadlines.

Knowledge of coding structures and their application in the computerized payroll system. Understanding of pay interrelationships to determine how to insert changes to insure that the effect of the transaction on all other items in the accounts is properly taken into consideration.

Ability to recognize transactions which the computer is not programmed to handle in order to enter these changes manually and adjust interrelated items to balance. Knowledge of operations and products of computerized systems to trace multiple sources of error and make retroactive adjustments.

Ability is required to operate computer terminal used to input data into the computer.

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**CONTACTS**

50

Frequent contact with representatives of the Division of Organization and Personnel to verify terms or obtain information on basic source documents, time and attendance clerks to obtain missing records and correct errors, operating supervisors and employees to answer a variety of payroll questions.

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**RESPONSIBILITY FOR DECISIONS**

80

Supervision Received

Chief, Employee Compensation Unit, Division of Accounting.

General Supervision "B".

Guidelines are payroll and related regulations in NRC and Federal Personnel Manual, Federal and State tax charts, GAO regulations and decisions of the Comptroller General.

Independent Action

Decides what work must be done first and decides proper sequence in order to meet payroll schedules and deadlines.

Applies extensive and detailed rules and regulations processing all actions rapidly and accurately.

Work Accepted Without Review

Computation of exact amount of each salary check.

Computation of sick and annual leave balances for each employee assigned to his/her payroll block.

Coding and allotment identified for each payroll block processed.

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**SUPERVISION EXERCISED**

None.

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**WORKING CONDITIONS**

5

Normal.

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**EFFORT**

5

Normal.

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**TOTAL SCORE**

310

EVALUATION OF GS-1 - 15 POSITIONS

VOUCHER EXAMINER (TRAVEL), GS-0540-5

BENCHMARK

FUNCTIONAL STATEMENT

Examines and processes for payment travel vouchers covering temporary duty, which includes per diem, mileage for use of privately-owned conveyance, and incidental expenses; vouchers covering advance of funds and permanent change of station, including per diem and movement of household goods and transportation of dependents; foreign travel vouchers and vouchers covering invitational travel of non-NRC personnel.

REGULAR DUTIES

Reviews voucher to assure that all official travel is properly authorized and that related expenses are allowable in accordance with the provisions of pertinent statutes, Executive orders, regulations, and decisions.

The general requirements for making such assurances entail:

- a. Reviewing the initial authorization request (NRC Form 279) to determine what has been authorized.
- b. Checking for any inconsistencies between the initial authorization request and the submitted voucher. The identification of errors or inconsistencies requires making contact with the originating office to discuss the discrepancies and identify means of correcting the situation.
- c. Inserting information on vouchers which includes any advance funds received by the employee or consultant.
- d. Verifying mathematically, claims on vouchers and supporting documents.
- e. Making adjustments which may entail deductions for excess per diem, improper claims, corrections to errors in totals.
- f. Coding accounting information which includes identifying the appropriation, allotment, and B&R classification in which payment will be charged.

The specifics of the audit procedure will vary depending on the nature of the voucher.

The examination of regular travel vouchers, foreign travel, and consultant travel require cognizance of:

- a. Mode of transportation
- b. Advances of funds for travel
- c. Travel allowances
- d. Expenses incidental to transportation
- e. Fees relating to travel outside the continental United States
- f. Receipt for cash payments.

The review of change of station vouchers requires the examiner's attention to:

- a. Persons included in relocation allowances
- b. Temporary quarters allowance
- c. Temporary storage of household goods
- d. Allowable expenses for travel expenses, transportation for immediate family, and mileage, if a privately owned vehicle is used.
- e. Claims for reimbursement of broker's fees, real estate and commissions and other costs associated with the sale and purchase of an employee's residence.

Upon completion of review of the vouchers as to their legality and reimbursability, forwards the vouchers to the schedule clerk.

Maintains on a periodic basis daily records of travel advances dispensed to individual employees or consultants. The maintenance of travel advance records requires:

- a. recording the individual's name, the amount of advance and identifying the source document that authorizes travel.
- b. reconciling the totals of travel advances with logbook information (i.e., disbursements, recoups, collections).
- c. reconciling advance information with the general ledger accounts on a monthly basis.

ANALYSIS

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**BASIC SKILLS** 170

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Knowledge of statutes, decisions, regulations, and policies sufficient to audit and determine the reimbursability of travel and transportation vouchers and ability to apply them with judgment and discretion.

Ability to type standard and NRC forms with a minimum of errors.

Ability to use adding machine and calculator as required. Ability to operate computer terminal used to input data into the computer.

Knowledge of the internal procedures for handling unused passenger tickets, filing claims for same, and recording of reimbursement received.

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**CONTACTS** 50

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Frequent contacts at all levels of the NRC offices to obtain information relating to claims presented for reimbursement of travel and transportation expenses.

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**RESPONSIBILITY FOR DECISIONS** 85

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Supervision Received

Chief, Travel Accounts Unit, Division of Accounting.

General Supervision "B".

Guidelines are the Comptroller General's Decisions; General Accounting Office Regulations pertaining to vouchers; NRC Instructions pertaining to vouchers; Official Mileage Tables; Official Railway Guide; Federal Travel Regulations.

Independent Action

- a. Determines correctness of vouchers being processed for payment and that voucher file is complete.
- b. Determines propriety and reimbursability of travel vouchers and that all necessary documents and authorizations are attached.
- c. Assures that advanced funds are properly liquidated.
- d. Determines, by the review of the suspense files, vouchers being held for examination and identifies for follow-up vouchers that require action.

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**SUPERVISION EXERCISED** 0

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None.

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**WORKING CONDITIONS** 5

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Normal.

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**EFFORT** 5

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Normal.

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**TOTAL SCORE** 315

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## VOUCHER EXAMINER (COMMERCIAL ACCOUNTS), GS-0540-6

## BENCHMARK

## FUNCTIONAL STATEMENT

Examines vouchers and supporting documents in connection with the payment of invoices for supplies and non-personal services ordered by purchase orders, materials and services procured under contract, as well as all other miscellaneous invoices that include GSA Services.

## REGULAR DUTIES

Reviews and directs the work of voucher examiners engaged in reviewing and processing for payment invoices on research contracts with national laboratories and universities which are normally let under CPFF terms and require partial payment upon the completion of a percentage of work.

Handles unusual problems resulting from the processing of invoices which may require reviewing the original contract or agreement to determine the provisions and siting areas of non-conformance to the contractor.

Determines when an amendment is needed to a purchase order or contract based on identified discrepancies between the original contract and the invoices and discussions with the vendor.

Instructs the new employee in the techniques pertinent to miscellaneous vouchers and contracts, examination and payment. Makes assignments based on the level of knowledge the examiner has reached in the examination and payment process.

Records and ensures the proper recording of accounting information which requires identifying the appropriation allotment and object class.

Schedules bills for payment and certification by distributing items to the scheduling clerk with each bill separated by an appropriation number.

## ANALYSIS

## BASIC SKILLS

185

Knowledge of statutes, Comptroller General decisions, regulations, and policies governing the audit of commercial invoices and miscellaneous vouchers; and ability to apply them with judgment and discretion.

Knowledge of a variety of commodities for the purpose of determining the proper budget classification of such items.

Ability to compose letters regarding various types of vouchers for the purpose of clarifying discrepancies or seeking additional information on the propriety of vouchers.

Ability to type standard and NRC forms with a minimum of errors.

Ability to use adding machine and calculator as required.

General knowledge of trade customs and terminology, general terms and provisions of standard forms of Government contracts.

Knowledge of contract provisions, contents of reimbursable contracts, and other transaction authorizations adequate to properly examine vouchers submitted.

Ability to instruct and assist voucher examiners of lower grades in the examination of all types of disbursement vouchers.

Ability is required to operate computer terminals used to input data into the computer.

## CONTACTS

60

Frequent contacts at all levels of offices to obtain information relating to claims presented for payment of goods and services.

Continuous contact with procurement agents in order to resolve discrepancies in procurement instruments.

Occasional contacts with NRC vendors and contractor personnel at the first supervisory or work force level, either in person or by phone, to adjust minor discrepancies in commercial invoices; to guide personnel in proper submission of invoices in order to expedite payment; and to explain the basis for allowing, disallowing, or modifying billing claims.

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RESPONSIBILITY FOR DECISIONS

90

Supervision Received

Chief, Funds, Government and Commercial Accounts Section.

General Supervision "B".

Guidelines are the Comptroller General Decisions; General Accounting Office Regulations pertaining to vouchers; and NRC instructions and procedures pertaining to vouchers.

Independent Action

Recommends payment, after audit, of vouchers prepared by others.

Decisions Made Independently

Determines correctness of vouchers being processed for payment and that voucher file is complete.

Determines propriety and reimbursability of commercial vouchers for CPFF, lump-sum and unit-price contracts, and insures that all necessary documents and authorizations are obtained.

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SUPERVISION EXERCISED

None.

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WORKING CONDITIONS

5

Normal.

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EFFORT

5

Normal.

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TOTAL SCORE

345

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## ACCOUNTING TECHNICIAN, GS-0525-7

## BENCHMARK

## FUNCTIONAL STATEMENT

Serves as Accounting Technician in the Division of Accounting responsible for the classification of transactions and for assisting in the maintenance, verification, and reconciliation of accounts involving the full variety of transactions and adjustments occurring within the accounting system.

## REGULAR DUTIES

Classifies all types of accounting transactions covering the full variety of recurring transactions processed in the Division of Accounting. Reviews obligation and expenditure and other documents, verifies accuracy and completeness of accounting data, determines the accounts affected and the debit and credit entries to be made. Prepares or reviews Financial Data Code Sheets or other Data Transcription Sheets for coding financial data into the automated system. Determines the validity of transactions and other codes used with a given type of transaction to ensure that they properly reflect the type of transaction such as advice of allotment, obligation, payment, or accrual, appropriation reimbursement; Reference Codes to trigger a desired action from the automated system or to identify the action taken; Allotment, Balance Sheet, Summary Classification, Status, Asset, Budget and Reporting Classification, Contract Identification, Object Classification, and a variety of other codes many of which have extensive subdivisions to reflect diverse and varied transactions processed into the system.

Conducts special analyses of unusual and complex transactions requiring detailed review of the purpose and nature of the action, research of guidelines and precedents to determine the accounting treatment required, and determination of numerous entries required to reflect the action in all related accounts.

Receives and reviews error sheets reflecting transactions rejected by the automated system. Traces rejections requiring considerable research to identify the basic cause of the error or rejection. Determines action required to correct the data and re-enter into the System, insuring necessary adjustments in related accounts, as well.

Assists in the maintenance of various subsidiary and control ledgers and in the reconciliation of accounts. Reviews various computer reports and output documents, compared against control accounts and to related data in other reports to assure agreement. Traces discrepancies reviewing the records and source documents to identify the cause and determine corrective action required to correct all related accounts. Prepares worksheets reflecting the source of the discrepancy and action required to bring the accounts into agreement.

## ANALYSIS

## BASIC SKILLS

220

Knowledge is required of double entry and accrual accounting principles, methods and techniques associated with the field of bookkeeping in order to determine the nature of entries to be made into the accounting system and to maintain a variety of subsidiary accounts and ledgers.

Knowledge is required of the procedural aspects of NRC accounting policies, principles, standards, and methods. An understanding of account relationships within the NRC account structure is also required to process transactions into the system and assure appropriate adjustment to related accounts.

Knowledge of accounting codes and their application sufficient to record transactions in the record and prepare data for the automative system.

General knowledge is required of NRC computer-based systems used for accounting sufficient to understand computer input for all financial transactions and enable discussion with ADP personnel, co-workers, and supervisors concerning processing of transactions.

Ability is required to operate computer terminals used to input data into the computer.

## CONTACTS

60

Daily contacts with personnel in Division of Accounting concerning accounting classification, coding, and processing of documents.

Frequent contacts are with personnel in the operating organizations, such as Division of Contracts, to resolve problem transactions.

Approved: April 30, 1980

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RESPONSIBILITY FOR DECISIONS

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Supervision Received

Supervisory Accountant.

General Supervision "B".

Guides are NRC Accounting Manuals and Coding Structures and internal Division of Accounting instructions.

Independent Action

Determines classification and coding on all except most complex transactions.

Determines action necessary to reconcile discrepancies except in complex and unusual situations.

Recommends appropriate classification and adjustment in complex and unique situations.

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SUPERVISION EXERCISED

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None.

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WORKING CONDITIONS

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5

Normal.

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EFFORT

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5

Normal.

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TOTAL SCORE

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375

## BUDGET AND FINANCE ASSISTANT, GS-501-11

## BENCHMARK

## FUNCTIONAL STATEMENT

Serves as focal point for budget and finance administration within a major program office of the NRC. Working in collaboration with managers and supervisors of the program office and budget analysts from the Office of the Controller, coordinates the gathering and submission of budget data and administration of the budget and internal financial records of that program office. The budget for the program office covers personnel (several hundred employees), travel, equipment, supplies, contracts, and services.

## REGULAR DUTIES

1. Budget Submissions.
  - a. Prepares instructions on budget format and content to managers and line officials of the program office for their submission of budget proposal data based upon instructions and guidance from the Office of the Controller and OMB.
  - b. Reviews and analyzes budget estimates submitted from organizational components of the program office for accuracy, adequacy, reasonableness, and conformance to instructions and regulations.
  - c. Compiles and assembles budget submission data, both current and historical, into proper format for forwarding to the Office of the Controller.
  - d. Advises and guides line officials of the program office on resolution of problems encountered in developing budget data.
2. Budget Administration.
  - a. Establishes and maintains records and procedures that allow the monitoring of the funding activities (i.e., obligations, expenditures, allotment status).
  - b. Cross-checks original estimates with operating budgets or execution plans and notes differences.
  - c. Detects expenditure patterns that may lead to Anti-Deficiency Act problems and reveals findings to appropriate parties or allottee.
  - d. Compares accounting summaries with reports on status of funds and investigates discrepancies when warranted.
  - e. Checks for apparent trends in obligations and expenditures which warrant further study.
  - f. Prepares summary and analytical reports based on internal reports and accounting information.
3. Represents the program office on budget and fiscal matters when dealing with the Office of the Controller and other organizations of the NRC. Is assigned as the program office representative to a variety of NRC committees and task forces to assist in the development of NRC guidelines for budget development and administrative and financial reporting and controls.
4. Prepares comments for the program office on proposed new procedures within NRC dealing with budget and finance matters.
5. Recommends, drafts, and implements procedures for carrying out the program office's responsibilities in the budget and finance area.
6. Prepares records and special reports and data on funds utilization and availability as required by the Office of the Controller and other levels of management. These reports assure that the program office is operating within its budget and identify areas for possible transfer of funds or possible needs for additional funds.

## ANALYSIS

## BASIC SKILLS

290

Knowledge of practices and methods of budget and fiscal management sufficient to carry out the program office's responsibility for development of budget submissions and monitoring of expenditures.

Approved: April 30, 1980

Knowledge of budget and fiscal policies, procedures, and regulations of the NRC affecting the formulation of budgets; working knowledge of OMB and Congressional procedures and an understanding of the NRC budgetary process to ensure completeness and conformance in the preparation of budget estimates for assigned office programs.

Detailed knowledge of NRC internal record and reporting procedures and practices sufficient to prepare financial plans, to control funds, and to assure that use of funds is within legislative and administrative intent. This knowledge is usually obtained through job experience. Ability to interpret specific Federal and NRC regulations and instructions relating to allotment, budgetary, and fund controls and practices.

Ability to establish recordkeeping systems and procedures to maintain accounts and control program funds. Records must be of sufficient accuracy to assure that allotments and ceilings are not exceeded.

Sufficient knowledge and analytical ability to participate in the evaluation and interpretation of financial statements and reports to ensure proper control and use of funds. Ability to locate, select, and compile budgetary, contractual, and funding data into various summary and detailed presentation forms as required.

Detailed knowledge of office programs by organizational location, budget category, and activity to assure completeness and accuracy of compiled data.

Skill in self-expression and the presentation of data in report form to accurately, clearly, and concisely develop and present management information and resultant recommendations. Ability to communicate orally and in writing on budget and funding matters.

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**CONTACTS**

105

Frequent contact with all levels of the program office management to provide guidance, assistance, resolution of problems, and to obtain data for budget submission, control, and financial management.

Frequent contact with division directors, branch chiefs, and staff members of the Office of the Controller to coordinate activities, obtain guidance, and furnish and explain information related to budget submissions and financial reports.

Frequent contact with senior and mid-level administrative officials of other NRC offices to exchange information and to resolve budget and finance matters of mutual concern.

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**RESPONSIBILITY FOR DECISIONS**

120

Supervision Received

Chief, Administrative Branch of a major program office.

General Supervision "B".

Guidelines are NRC and program office manuals, Office of Controller instructions, OMB circulars, and other administrative documents concerning budget and finance matters.

Independent Action

Establishes internal office procedures and systems for budget submission and the control and accountability of funds.

Determines the format and content of control ledgers, work papers, tabulations, and reports necessary to accomplish assignments.

Determines what source data to use and the personnel to be contacted to verify information or to obtain additional data.

Originates studies, charts, and analyses of trends and expenditure rates in the budget and finance areas for use by program office management in decision-making briefings.

Prepares financial reports required by the program office management and the Office of the Controller.

**EVALUATION OF GS-1 - 15 POSITIONS**

**SUPERVISION EXERCISED**

None.

**WORKING CONDITIONS**

**5**

Normal.

**EFFORT**

**5**

Normal.

**TOTAL SCORE**

**525**

**EVALUATION OF GS-1 - 15 POSITIONS**

**OPERATING ACCOUNTANT, GS-0510-11**

**BENCHMARK**

**FUNCTIONAL STATEMENT**

Participates in the maintenance and control of asset, liability, income, and expense accounts, which provide summary information on the day-to-day accounting transactions.

**REGULAR DUTIES**

Responsible for reviewing the recording and reporting of transactions affecting subsidiary accounts in order to ensure that the eventual recordings in the general ledger accounts are proper, accurate, and consistent.

Renders advice and guidance to the staff members, in the Division of Accounting, engaged in recording accounting entries, when recordings of certain transactions raise questions.

Reviews the monthly automated data transaction files to ensure that day-to-day transactions have been properly recorded and that the proper relationships exist among accounts with related figures. Identifies the need for establishing additional accounts in order to facilitate increased accuracy in recording and reporting transactions. Reviews the flow of documents to assure that proper documentation is present with the recording of specific transactions.

Prepares external reports which address such aspects as the financial condition of the agency, the expenditure activity, and the status of funds available.

**ANALYSIS**

**BASIC SKILLS**

315

Professional knowledge of the principles, theories, techniques, and methodology of governmental fund accounting to assure that financial controls are properly effected and are consistent with accepted government accounting principles and practices.

Knowledge of NRC's policies and procedures concerning financial accountability sufficient to instruct others on the proper recording of financial transactions.

Knowledge of Comptroller General and GAO decisions and rulings in order to determine proper accounting procedures.

Ability to analyze accounting data, procedures, and policies and determine the adequacy of control and reporting methods, the need for new accounts, and in rendering accurate and complete information.

**CONTACTS**

85

Continuous contact with section and Branch Chief in the Division of Accounting to advise on the proper recording of accounting entries and appropriate accounting methods.

Occasional contact with middle management to exchange information on accounting data utilized in the preparation of reports.

Occasional contact with other government agencies to furnish or obtain accounting information which affects external reports regularly prepared.

**RESPONSIBILITY FOR DECISIONS**

115

Chief, General Accounting Section.

General Supervision "B".

Guidelines are NRC Manual, Comptroller General Decisions, General Accounting Office Regulations, Treasury Fiscal Requirement Manual, OMB Circulars, and other Government agency issuances.

Independent Action

Makes day-to-day decisions concerning the proper treatment of financial transactions.

Prepares external reports concerning the financial status of funds and expenditure activity.

Recommends:

The modification of reporting or recording practices where needed improvements in accuracy and efficiency are identified.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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5

Normal.

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**EFFORT**

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5

Normal.

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**TOTAL SCORE**

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525

AUDITOR, GS-0510-12

BENCHMARK

FUNCTIONAL STATEMENT

As an Auditor in the Office of Inspector and Auditor, serves as a member of an audit team, participating in the conduct of financial and operational audits in program areas throughout NRC, as assigned.

REGULAR DUTIES

As a member of an audit team, assists in planning audits in such program areas as Materials and Fuel Cycle Licensing, Standards Development, Reactor Licensing, Reactor Safety Research, Materials and Reactors Inspection, or other program areas as assigned. Obtains preliminary information concerning the segment of the organization or activity assigned for audit. Reviews policies, functions, internal controls, pertinent laws, regulations, contracts, and other information to define the purpose, scope, and objectives of the activity, the manner in which operations are conducted, and financial and other information necessary to the start of the audit. Works with other team members and supervisor in developing plans for the audit and techniques and procedures to meet the needs of the audit in the organization to be surveyed.

As team member participating in the conduct of the audits, examines and evaluates the organizational segment to which assigned. Examines the assigned program, project, activity, or operation to assess the effectiveness, efficiency with which the activities carry out their financial management responsibility. Examines financial records and management controls, processes, and procedures. Interviews operating officials and employees, obtains and checks necessary records and data. Analyzes findings, identifies problem areas and improper practices, and develops constructive recommendations for corrective action, for resolving problems, for promoting future operational efficiency, and for improving utilization of financial resources.

Assists in preparing the audit report setting forth findings and recommendations for corrective action. Works with other team members to coordinate findings and recommendations. Participates in conferences with representatives of organizations audited to devise coordinated approach to resolution of findings. Attends management briefings, explaining findings and recommendations and answering questions as necessary. Participates in follow-through on audit recommendations, identifying and recommending action on recommendations which have not been implemented.

Performs other duties as assigned.

ANALYSIS

BASIC SKILLS

375

Knowledge of principles, theories, techniques, and practices of modern accounting and auditing in order to participate as a team member in professional financial and operational audits of NRC technical and administrative activities.

Knowledge of management methods, business practices, and government regulations, including GAO and OMB rules and regulations, in order to make meaningful analyses and recommendations for the area under audit.

Knowledge of legislation and regulations relating to the nuclear regulatory program as they relate to management within NRC.

Ability to carry out audit assignments, analyze findings, detect need for modification of procedures, recommend sound methods to remedy errors or irregularities and improve operations, prepare clear and concise audit reports, and present findings and recommendations in a clear and logical manner.

CONTACTS

115

Continuous contact with NRC supervisory and nonsupervisory personnel to obtain information necessary to the conduct of the audit.

Frequent contact with NRC management to report findings and present recommendations and devise solutions to problem areas. Must be able to articulate in a convincing manner reasons for proposed solutions and courses of action necessary to correct program deficiencies.

Occasional contact with representatives of GAO, OMB, and the Comptroller General's Office to clarify rulings by these offices and resolve questionable findings and recommendations.

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**RESPONSIBILITY FOR DECISIONS**

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125

Supervision Received

Supervisory Auditor.

General Supervision "B".

Guidelines are NRC Manual, Comptroller General decisions, and other applicable directives.

Receives guidance on scope and objectives of assignment and assistance where major problems are encountered. Work which is part of an overall audit is reviewed for consistency of findings and recommendations.

Independent Action

Develops audit steps and detailed procedures.

Determines adequacy of information and need to obtain additional data.

Recommends:

Modifications of audit plans and procedures within assignments.

Action to be taken to correct deficiencies and improve operations.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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5

Normal.

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**EFFORT**

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5

Normal.

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**TOTAL SCORE**

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625

## BUDGET EXAMINER, GS-0560-12

## BENCHMARK

## FUNCTIONAL STATEMENT

Serves as Budget Examiner in the Division of Budget, Operations and Systems Development Branch, responsible for overseeing the execution of approved budgets and funds control in assigned major program areas; for providing budget services in all phases of budgeting to the smaller Commission and EDO staff offices; and for preparing NRC-wide budget instructional and support material as assigned.

## REGULAR DUTIES

Maintains surveillance over the entire process of budget execution and funds control for one or more major program segments of NRC such as the Office of Nuclear Regulatory Research, Office of Nuclear Reactor Regulation, or organization of comparable scope and complexity.

- a. In coordination with Budget Examiner from the Program Branch and NRC staff from assigned program areas, reviews proposed budget execution or financial plans to assure that proposed expenditures are consistent with the budget as approved, that rate of expenditure does not exceed the quarterly apportionment of funds, that appropriate reserves are established when programs have been curtailed or postponed, and that proposed expenditures are reasonable in terms of prior cost experience. Recommends adjustment as necessary to provide that the approved plan for funds control is consistent with policy, regulatory, and legal requirements.
- b. Develops requests to be submitted to the Office of Management and Budget for apportionment and allotment of funds in assigned program areas. Prepares NRC budget authorization documents and narrative and statistical material for presentation to OMB and Congress. Provides the necessary backup and support material and answers questions in support of these requests. Upon approval, allocates funds to programs in accordance with approved financial plan.
- c. Reviews performance against financial plans through analysis of monthly financial reports and various other accounting data. Reviews reports to determine whether costs, obligations, and estimates are within approved budget limitations by overall program and project. Coordinates necessary action on funds control problems such as reprogramming and shift of funds within allowable limits. Takes action as necessary to avoid deficiencies, assisting in the preparation of requests for reapportionment of funds when higher level approval is required.
- d. Prepares quarterly, annual, and special reports on the progress of the funding program or specialized parts thereof. Develops data showing status of the program, utilization of funds in relation to program plans, need for adjustment and reprogramming action. Summarizes and presents such reports for review by the Director, Division of Budget, and by the Controller.
- e. Is responsible for assuring that the legal limitations imposed by the Congress on the use of funds are not violated in assigned program areas. This involves assuring that the intent of Congress as expressed during hearings and in Congressional Reports as well as limitations imposed in the authorization and appropriation acts are observed.

Provides budget services in all phases of Budgeting to the smaller offices of the Commission and the Executive Director for Operations such as the Office of the General Counsel, Office of the Inspector and Auditor, Office of the Executive Legal Director, and Office of the Controller.

- a. Works with representatives of assigned offices in the development of budget estimates including the planning, development, and review of fund requirements to support plans and programs and the presentation of estimates including the preparation of the budget and support materials. Provides guidance to operating officials to insure understanding of the instructions, interpreting and explaining requirements as necessary.
- b. Analyzes the budgets submitted, discussing with operating officials to insure complete understanding of estimates. Assesses validity of assumptions, evaluates consistency of dollar and manpower estimates, probes questionable areas, and decides on need for changes, for additional information, and for further development of justification. Conducts negotiations with office representatives in effort to arrive at mutually satisfactory estimates.
- c. Prepares synopsis of estimates highlighting significant features and major policy issues and recommends action and changes as considered appropriate to the Director of the Budget and Controller. Prepares staff papers presenting budget estimates to the Executive Director and to the Commission, and prepares special data as requested on the estimates. Participates in hearings conducted by the Budget Review Group and higher levels as required.

- d. Reviews performance against financial plans through analysis of monthly financial reports and various other accounting data. Reviews reports to determine whether costs, obligations, and estimates are within approved budget limitations by overall program and project. Coordinates necessary action on funds control problems such as reprogramming and shift of funds within allowable limits. Takes action as necessary to avoid deficiencies, assisting in the preparation of requests for reapportionment of funds when higher level approval is required.
- e. Administers the allotment for the various small offices and staff of the Commission and EDO; certifying funds for obligation, maintaining necessary informal records to substantiate these accounts, reconciling costs with the accounting office, and conferring with representatives of assigned offices in programming and justifying their individual budgetary requirements. Assures that legal limitations imposed by the Congress are observed and that the intent of Congress as expressed during hearings and in Congressional reports is observed.

Prepares NRC-wide budget instructions and material as assigned. Prepares interpretative instructions such as portions of the NRC interpretation of OMB Circular A-11, instructions to accompany the annual Budget Call, and various other budget advice to operating offices. Prepares special analyses of budget and financial data necessary for the Director of Budget, the Controller, and other top NRC management. Obtains information and prepares statements providing information requested during Congressional hearings, as requested by the Commissioners. Works with NRC program offices, staff offices, and other Budget Examiners as appropriate in developing instructions and in preparing special budget analyses and information.

Performs other duties as assigned.

#### ANALYSIS

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#### BASIC SKILLS

375

Knowledge of Federal budgeting, financial, and funds control systems, including instructions of the Office of Management and Budget.

Knowledge of programs, functions, and objectives of NRC sufficient to exercise funds control for the most complex and difficult NRC programs.

Knowledge of programs, functions, and objectives of NRC sufficient to provide services in all phases of budgeting to the smaller NRC support offices, offices of the Commission, and EDO.

Ability and skill in presenting information and recommendations in clear, concise, logical terms, both orally and in writing.

Ability to interpret and apply budgetary guidance to work rapidly and accurately under pressure of budgetary deadlines and time frames.

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#### CONTACTS

115

Continuous contact with program officials and staff members in assigned major program areas to explain limitations of Congress and OMB on the use of funds and to resolve problems of funds control and the shifting of funds within allowable limits.

Continuous contact with top management of smaller offices and program officials in program support areas to discuss budget instructions; provide guidance in the preparation of budget assumptions, estimates, and justification; to identify budgetary problem areas and to negotiate possible solutions and alternatives.

Occasional contacts with OMB relating to the shifting of funds and the execution of program budgets.

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#### RESPONSIBILITY FOR DECISIONS

130

Chief, Operations and Systems Development Branch, Division of Budget.

General Supervision "B".

Receives guidance and assistance on policy matters and problem areas. Supervisor reviews recommendations to assure conformity with the Commission policy, decisions, and regulations, coverage of significant items, and uniformity of presentation.

Approved: April 30, 1980

**EVALUATION OF GS-1 - 15 POSITIONS**

Guidelines consist of Office of Management and Budget Directives, NRC policies, OMB and NRC program assumptions, previously approved budgets, and authorizing legislation.

Independent Action

Identifies need and recommends changes in financial plans for funds control. Identifies problems of funds control in assigned program areas. Determines need for adjustment and shifting of funds within allowable limits. Determines action necessary to avoid deficiencies and assure that legal limitations imposed by the Congress are observed.

Develops methods and techniques for accomplishing the various phases of budgeting in the smaller support offices and offices of the Commission and EDO. Advises offices of improvement that should be made in form and content of justification and backup for assigned offices. Recommends changes in budget estimates, and identifies significant issues requiring further review and approval.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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Normal.

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**EFFORT**

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Normal.

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**TOTAL SCORE**

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630

## SYSTEMS ACCOUNTANT, GS-0510-12

## BENCHMARK

## FUNCTIONAL STATEMENT

Serves as Systems Accountant in the Division of Accounting with assigned responsibility for a major segment of the NRC Systems Accounting function. Maintains continuing surveillance and is responsible for systems, reports, and procedures covering the accounting requirements of several major operating organizations. Assigned operating organizations include one or more of the primary program areas and may include several of the staff and smaller program offices as well. Also works on special accounting projects as assigned.

## REGULAR DUTIES

Maintains continuing contact with program officials in assigned organizational elements to stay abreast of approved and projected program changes and need for improved accounting services. Holds discussions with program and operating officials to determine nature and extent of approved or projected program change, to ascertain need for accounting data, and to encourage greater use of accounting in the management process.

Initiates accounting studies considered necessary. Determines scope, outlines requirements, and is responsible for conduct of the study, either alone or with the assistance of lower level accountants.

Coordinates and analyzes study findings. Recommends accounting systems and procedures which will accommodate new programs, provide better service to management, and improve accounting operations. Coordinates proposed changes within the Division of Accounting and with program officials in affected organizations. Designs the necessary changes and is responsible for developing, testing, and installing new systems and procedures. Follows through to assure that action accomplishes desired objectives. Assures that the accounting and reporting systems provide the services required by management and accurately reflect NRC financial operations.

Performs special assignments requiring adaptation of existing accounting policies, systems, and procedures to unusual situations in any part of NRC. Examples of special assignments include setting up a system of accounts to cover changes in the reactor disaster indemnification agreement program; providing advice to program officials in setting up special cost accounting programs; working with other government agencies on setting up accounting procedures to cover various types of joint agreements.

## ANALYSIS

## BASIC SKILLS

395

Professional knowledge of accounting principles, theories, concepts and their application to new program situations and to the solution of problems for which no clear precedent exists. Ability to apply accounting concepts in practical application and adapt them to new situations. Sufficient familiarity with scientific and technical programs to be able to assist program officials in setting up accounting systems.

Knowledge of ADP systems and capabilities as applied to the accounting process.

Ability to analyze unusual and complex programs in a professional manner and devise accounting systems and procedures to meet operating requirements.

Ability to make oral and written presentations clearly, concisely, and effectively.

## CONTACTS

115

Continuing contacts with program officials and employees at all levels within assigned organizations and with supervisors and employees in Office of Controller. Maintains working relationships with representatives of GAO, Treasury, and OMB to secure and provide information on accounting policies, requirements, and procedures. Contacts with Division of ADP Support, ADM, and Office of Management and Program Analysis for projects involving computer-based operations and with any staff office to coordinate projects and work assignments. Works with division heads and other program officials to obtain concurrence and action in revising systems that entail operating and accounting programs.

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RESPONSIBILITY FOR DECISIONS

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130

Supervision Received

Chief, Financial Systems and Procedures Branch.

General Supervision "B".

Receives guidance on scope of assignment and assistance where major problems are encountered. Work is reviewed for compliance with policy, professional adequacy, and soundness of conclusions.

Independent Action

Identifies and defines accounting systems problems in assigned operating segments. Develops and recommends solutions to problems which may entail improving systems and procedures.

Recommends new and/or revised accounting systems to meet needs of assigned operating organizations.

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SUPERVISION EXERCISED

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WORKING CONDITIONS

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5

Normal.

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EFFORT

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Normal.

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TOTAL SCORE

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650

EVALUATION OF GS-1 - 15 POSITIONS

COST ACCOUNTANT, GS-0510-13

BENCHMARK

FUNCTIONAL STATEMENT

As the Cost Accountant for the License Fee Management Branch, provides cost accounting advice, assistance, and performs cost accounting work in the establishment and maintenance of fees to recover costs for the licensing and other services which NRC performs and which provide benefit or value to identifiable recipients.

REGULAR DUTIES

Participates in the development of policies and procedures for administration of the License Fee program by providing information and advice on cost accounting principles, methods, and techniques for use in the development of fees covering such NRC activities as the processing of applications for permits, licenses, and amendments; health, safety, environmental, and special nuclear material safeguards inspections; facility quality assurance inspections; antitrust reviews; early review of prospective reactor sites; inspection of major reactor components and systems; uncontested hearings for construction permits; and other services providing benefit to identifiable recipients. Current fees range from less than \$100 for certain materials licenses to well over \$1,000,000 for a construction permit for certain nuclear power reactors.

Provides Cost Accounting assistance in the conduct of studies to revise and update fee categories and schedules. Assists in the review and analysis of NRC offices, their functions and responsibilities to categorize activities that should be included in the computation of fees, to identify and develop specific fee categories, and to determine the work processes and level of effort required to provide the service. Recommends methods and procedures for developing cost data and determining direct and indirect costs for each fee category to include costs for contractual support service, salaries, benefits, administrative support, travel, training, overhead, and added factors to provide for depreciation on capital equipment, interest, and related expenses. Reviews and analyzes available data, determines additional cost information required, computes costs for various licensing and service activities, and provides information for use in determining appropriate fees and recommending revisions in the fee schedules. Maintains complete work papers and support data for all cost analyses and computations.

Analyzes systems and methods used by various NRC organizations to maintain manpower and cost data. Recommends procedures best suited to various types of organizations and to provide the cost data and internal control procedures needed for development of fee schedules and accurate statements of cost of operation. Recommends changes in reporting requirements. Develops forms and procedures to provide improved data for fee computation and support of fee schedules. Reviews and evaluates proposals for revisions in systems, techniques, and procedures and either endorses or recommends alternatives.

Continually analyzes costs from regular and recurring reports and summarizes data by fee category to provide comparison of current costs to current fee schedules. Prepares reports comparing costs over a period of time to current fee schedules.

Analyzes fee schedule annually based upon comparison of costs during the year to current fee schedule. Recommends changes in fee schedule for specific fee categories when analyses indicate that current fees are no longer appropriate. Prepares revisions and additions to NRC Licensing Regulations and materials in support of current or proposed fee schedules, explaining, illustrating, and interpreting the cost policies, standards, and principles used in the development of fees in general and fees for specific services. Reviews comments received on new or existing fees, preparing analysis and synopsis of such comments to be considered in fee determination.

Furnishes technical advice and assistance to staff of NRC offices in the interpretation of cost recovery policies, the application of the principles, and the uses that can be derived from the cost accounting program with respect to (a) analyzing programs and operations, (b) budgeting, and (c) cost recovery.

Prepares staff papers and proposed schedules of fees for Commission consideration. Develops long-range projections of costs and revenues based on budget and workload projections.

Prepares draft revisions and additions to NRC License Fee Regulations and also memoranda explaining, illustrating, and interpreting such policies, principles, or procedural standards.

Reviews applications for permits, licenses, amendments, and other services to determine proper fee category, furnishing information to Division of Accounting for allocation and to concerned NRC staff elements. Answers inquiries from applicants, prospective applicants, and others concerning appropriate fee category, basis for the fee, fee requirements, as well as general inquiries concerning the NRC cost recovery program.

Analyzes trends in budget and manpower and develops long range plans for cost recovery.

Performs other duties as assigned.

ANALYSIS

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BASIC SKILLS

445

Thorough knowledge of Cost Accounting principles, methods, systems, and techniques and of the development, installation, and operation of cost accounting systems to provide cost accounting advice and perform cost accounting for NRC license fee management.

Knowledge of programs, functions, and objectives of NRC and Government-wide license fee and cost recovery programs, legislation, precedent, regulations, and guidelines.

Knowledge of NRC accounting, budgeting, auditing standards, and procedures to coordinate information and requirements.

Ability to develop and recommend cost systems and procedures best suited to various types of operations and organizations.

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CONTACTS

115

Continuous contact with program officials and staff members at all levels to determine and provide guidance on cost information needed in the development of fee schedules, to provide interpretation of instructions, and to furnish information concerning the basis for fee schedules.

Explains to applicants and prospective applicants the bases for fees, fee categories, fee requirements, and the policies governing the NRC cost recovery program. Justifies to higher level NRC managers the detailed bases for determinations as to specific fees recommended for charge to applicants.

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RESPONSIBILITY FOR DECISIONS

135

Supervision Received

Chief, License Fee Management Branch.

General Supervision "B".

Projects are assigned with a general description of the objective of the assignment and approach to be taken. In many instances, there are no detailed guidelines.

Guidelines consist of NRC regulations governing the license fee program and cost accounting methods and techniques.

Independent Action

Develops and recommends methods and procedures for determining direct and indirect costs to be used in determining schedules of fees.

Determines need for improvement in cost reporting procedures. Develops forms and procedures to provide improved data.

Recommends revision in fee schedules when review and analysis indicate that fees in one or more categories are no longer appropriate.

Provides advice to NRC staff in the interpretation of instructions concerning the license fee program and methods and techniques for maintaining cost data.

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SUPERVISION EXERCISED

None.

**EVALUATION OF GS-1 - 15 POSITIONS**

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**WORKING CONDITIONS**

**5**

Normal.

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**EFFORT**

**5**

Normal.

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**TOTAL SCORE**

**705**

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AUDITOR, GS-0511-13

## BENCHMARK

## FUNCTIONAL STATEMENT

As an Auditor in the Office of Inspector and Auditor, is responsible for the planning, conduct, and reporting of individual financial and operational audits in technical and administrative program areas, either independently or with the assistance of one or more auditors.

## REGULAR DUTIES

Plans individual audits in such areas as Accounting Operations and Control, Contract Management, License Fee Management, Waste Management, Import-Export Licensing, Agreement States Program, and in other program areas as assigned. Develops preliminary audit information and plans, tailoring audit methods and procedures to the circumstances of the program, and adapting plans to meet the needs of the situation.

Examines the program, organization, or operation under audit to assess the effectiveness and efficiency with which the activities carry out their financial management responsibility. Examines financial records, management controls, processes, and procedures. Determines operating officials and employees to develop required audit information. Obtains data necessary to determine whether funds have been applied properly, resources are managed and used in an economical and efficient manner, and whether program objectives are effectively achieved.

Analyzes findings, identifies problem areas, improper use of resources, and areas in need of improved financial and resources management. Develops recommendations for corrective action, for resolving problems, for improving use of financial resources, and for promoting operational efficiency.

Prepares report of audit, setting for the findings and recommendations for corrective action. Meets with representatives of organizations audited to devise coordinated approach to resolution of findings. Prepares and presents briefings to responsible NRC management, presenting significant findings and recommendations. Follows through on audit recommendations to assure that corrective action and recommended improvements are implemented in a timely manner.

Coordinates the planning, conduct, and report of audit when the audit is of sufficient size and scope to require the assistance of one or more additional auditors.

Performs other duties as assigned.

## ANALYSIS

## BASIC SKILLS

450

Thorough and detailed knowledge of principles, theories, techniques, and practices of modern accounting and auditing and responsible audit experience to conduct professional, financial, and operational audits of NRC technical and administrative activities.

Knowledge of management methods, business practices, and government regulations, including GAO and OMB rules and regulations, in order to make meaningful analyses and audit conclusions.

Knowledge of legislation and regulations relating to the nuclear regulatory program as they relate to management within NRC.

Ability to plan and conduct and coordinate audits, develop modifications to audit procedures, develop sound and constructive audit recommendations, prepare clear and concise audit reports, and present clear and concise audit findings and recommendations.

## CONTACTS

115

Continuous contact with NRC management and nonsupervisory personnel to obtain information necessary to the audit.

Frequent contact with NRC management to report findings and recommendations, to explain and defend them, and to devise solutions to problem areas.

Frequent contact with representatives of GAO, OMB, and the Comptroller General's office to clarify rulings by these offices and resolve questionable findings and recommendations.

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**RESPONSIBILITY FOR DECISIONS**

135

Supervision Received

Supervisory Auditor.

General Supervision "B".

Receives guidance on scope of assignment and assistance where major problems are encountered.

Guidelines are NRC Manual, Comptroller General decisions, and other applicable directives.

Independent Action

Plans audit method and procedures.

Determines adequacy of information and/or need to broaden scope of audit.

Prepares audit report.

Recommends:

Action to correct deficiencies and improve operations, including changes to financial and management systems, procedures, controls, and practices.

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**SUPERVISION EXERCISED**

None.

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**WORKING CONDITIONS**

5

Normal.

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**EFFORT**

5

Normal.

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**TOTAL SCORE**

710

**EVALUATION OF GS-1 - 15 POSITIONS**

**BUDGET EXAMINER, GS-0560-13**

**BENCHMARK**

**FUNCTIONAL STATEMENT**

Serves as Budget Examiner in the Division of Budget with responsibility for budget planning and formulation for a major program segment of NRC such as the Office of Nuclear Regulatory Research or organization of comparable scope and complexity.

**REGULAR DUTIES**

Participates with representatives of the assigned program area in the development of annual budget assumptions to be used as a guide for submission of budget estimates. Develops specific instructions critical to the preparation and completion of budget estimates in assigned organizations. Provides guidance to program officials to insure understanding of the instructions, interpreting and explaining requirements as necessary. Assigned program area is characterized by items that present special difficulty in the formulation and execution stages of the budget. These include complex substantive technical programs, programs that entail procurement contract, research, construction, or other types of expenditures in addition to basic administrative expense, programs which are constantly changing direction and nature so there is a lack of predictive experience upon which to base budget considerations.

Assists and works with program officials in developing budget estimates. During process of preparation, provides day-to-day guidance, reviews tentative proposals, raises questions of propriety of proposals, and recommends revisions. Analyzes the budgets submitted, discussing with program personnel to insure complete understanding of estimates. Assesses validity of assumptions, evaluates consistency of dollar and manpower estimates, appraises realism of work plans and objectives, probes questionable areas, and decides on need for changes, for additional information, and for further development of justification material. Conducts negotiations with program offices in effort to arrive at mutually satisfactory budget estimates.

Prepares synopsis of budget estimates, highlighting significant activities and identifying major policy issues and other questions which should be brought to the attention of the Budget Review Group and the Executive Director. Initiates analyses and staff papers identifying budget impacts and implications to Budget Director and Controller. Recommends changes in estimates and position on issues for Controller presentation to the Budget Review Group and the Executive Director. Participates in hearings and makes presentations to Budget Review Group and Executive Director, pointing out the impact and significance of recommendations and answering questions pertaining to the budget estimates and basis for the recommendations. Following decisions of the Executive Director, makes necessary revisions in the budget submission and prepares report for the Executive Director's recommendations to the Commission.

Coordinates the preparation of budget estimates for submission to the Office of Management and Budget and the Congress to assure uniformity of presentation, conformance with Commission determinations, and proper coverage of all items significant to consideration of the estimates. Provides guidance to program officials in preparation of briefing material. Attends hearings conducted by the Office of Management and Budget and the Congressional Committees supplying data for operating officials appearing as witnesses and providing backup information as required. Researches specific questions and prepares response for Office of Management and Budget and Congressional questions that must be furnished as followup data.

Maintains liaison with representatives of the Office of Management and Budget and Congressional committee staffs, the Congressional Budget Office, and other Government agencies on budget matters affecting assigned NRC area of responsibility.

Participates in entire process of budget execution and the funds control process for assigned programs. Recommends action on requests for funds, amounts of funds to be held in reserve, sources of funds to meet special or unforeseen requirements, and makes special presentations on proposed allotments and financial plans.

Makes a continual review of performance against financial plans through analysis of monthly financial reports and performs such special analyses as may be indicated or requested by higher authority. Formally analyzes financial programs based on data forecasts and plans and prepares synopsis for Controller, EDO, and Commission review. Initiates recommendations for changes in financial plans and allotments based on experience data and to permit maximum utilization of available resources. Assures that the intent of Congress as expressed during hearings and in Congressional Reports is followed.

Performs analyses of staff papers for budget implications and makes recommendations to the Director of Budget. In coordination with the staffs of the Director, Division of Accounting, and interested Program Divisions, recommends revisions of budget and reporting classifications and makes recommendations to improve the efficiency of the total financial operation as appropriate.

ANALYSIS

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BASIC SKILLS

465

In-depth knowledge of Federal budgeting and financial systems; including instructions of the Office of Management and Budget.

Knowledge of programs, functions, any objectives of NRC and of assigned programs sufficient to provide professional assistance in the direction and development of multiple program NRC budgets for the most complex and difficult NRC programs.

Ability and skill in making recommendations in clear, concise, logical terms, both orally and in narrative form. Ability to prepare and present briefing material at budget hearings before the Budget Review Group, the Executive Director, and higher levels.

Ability to interpret and apply budgetary guidance and to work rapidly and accurately under pressure of budgetary deadlines and time frames.

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CONTACTS

120

Continuous contact with program officials and staff members at all levels to discuss budget instructions and provide guidance in the preparation of budget assumptions, estimates, and justification, to identify budgetary problem areas and to negotiate possible solutions or alternatives.

Frequent contact with budget examiners and staff in the Office of Management and Budget, the staff Congressional Committees, and the Congressional Budget Office to obtain and provide information and to discuss NRC recommendations.

Occasional contact with budget personnel of other agencies to obtain information and discuss programs of problems of mutual interest.

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RESPONSIBILITY FOR DECISIONS

140

Chief, Programs, Division of Budget.

General Supervision "A".

Receives guidance and assistance on policy matters and major problem areas. Supervisor reviews major recommendations to assure conformity with Commission policy and decisions.

Guidelines consist of Office of Management and Budget Directives, NRC policies, OMB and NRC program assumptions, previously approved budgets; interest of Congress as set forth in previous budgetary actions and authority legislation.

Independent Action

Develops analytical methods and techniques for use in assigned program areas. Advises program offices of improvements that should be made in the form and content of justification and back up for assigned programs, recommends changes in budget estimates during stage of formulation at Office level, recommends the appropriate division of allocation of estimates among offices and program elements. Obtains agreement with program offices on various day-to-day budget problems and identifies significant issues requiring further review and approval.

Recommends changes in budget estimates for consideration by Budget Review Group and Executive Director for Operations.

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SUPERVISION EXERCISED

None.

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**WORKING CONDITIONS** **5**

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Normal.

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**EFFORT** **5**

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Normal.

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**TOTAL SCORE** **735**

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## FINANCIAL ANALYST, GS-1160-13

## BENCHMARK

## FUNCTIONAL STATEMENT

Conducts evaluation of financial qualifications of applicants for and licensees of nuclear production and utilization facilities. Conducts analyses of utility costs, revenues, ability to attract capital; prepares staff reports and recommendations, and presents testimony at public hearings. Recommends appropriate license conditions.

## REGULAR DUTIES

Evaluates financial qualifications of applicants for and licensees of nuclear productions and utilization facilities, primarily applicants for nuclear power reactor construction permits and operating licenses, but also for research reactors, testing facilities, reprocessing facilities, fuel fabrication plants, commercial storage and waste disposal facilities, and other NRC regulated activities of sufficient magnitude to require financial analysis.

- Construction permits are for the design and construction of a nuclear facility and may extend over a period of 10 years or more; construction costs for large nuclear power plants are currently over one billion dollars for each unit; often include multiple power combinations comprised of large corporate entities, usually investor-owned electrical utility companies, and sometimes Federal agencies, State and district power agencies, municipal electric systems, or REA financed rural electric cooperatives. Applicants must demonstrate reasonable assurance of obtaining the funds necessary to cover estimated construction costs and related fuel cycle costs.
- Operating licenses are for the operation of the nuclear facility; applicants may include multiple public and private power combinations and must demonstrate reasonable assurance of obtaining the funds necessary to cover the estimated costs of operations, plus the estimated costs of permanently shutting the facility down and maintaining it in a safe condition.

Determines scope of analysis required to assess the financial qualifications of the applicant, develops sources of materials, and conducts necessary research to review and evaluate qualifications of the applicant in terms of financial ability to carry out the activities for which the permit or license is requested. Assesses past and present financial viability of applicants, reasonableness of cost estimates, and prospective future financing. Reviews projected system-wide sources and uses of funds covering period of construction and underlying assumptions, requiring determination of the reasonableness of projections and such underlying assumptions as return on common equity, target capital structure, interest and preferred dividend rates, market-book ratio of common stock, indenture, SEC and corporate charter coverage ratios, dividend payout ratios, and relative magnitude of construction program; analysis includes consideration of the rate setting regulatory environment.

Conducts meetings with applicants and potential applicants to explain financial considerations, exchange information pertinent to the applicant's concerns, request additional financial information, and recommend changes to assist applicant in meeting standards for financial qualifications.

Serves as NRC point of contact with State Utility Commissions, Federal Power Commission, and other agencies pertaining to financial matters that could affect electric utilities.

Prepares staff papers containing results of financial evaluation and recommendations on financial qualifications of applicant or licensee. Prepares financial qualifications portion of Safety Evaluation Report, reflecting staff recommendations and licensing conditions.

Serves as NRC expert witness on financial matters in public hearings before the Atomic Safety and Licensing Board.

## ANALYSIS

## BASIC SKILLS

475

Thorough knowledge of the theories and principles of finance applicable to the public utilities industry and all types of corporate organizations interested in constructing or operating nuclear facilities.

Thorough knowledge of electric utility industry economics and of methods and techniques to be used in the evaluation of utility cost and rate data, especially as it relates to the ability to attract capital.

Detailed knowledge of the legislation, principles, regulations, and operating procedures governing financial reviews.

Thorough knowledge of the programs of NRC, Federal Power Commission, and State Utilities Commissions for regulating utilities on financial matters.

Ability to become thoroughly familiar with power pooling arrangements and related contractual agreements, including financial ramifications thereof.

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CONTACTS

130

Continuous contact with applicants, upper level NRC staff, utility officials, Federal Power Commission, and State Utility Commission representatives to: conduct NRC financial reviews, explain and interpret NRC policies and regulations, obtain information from applicants, discuss procedural and substantive matters with applicants and other parties, identify and resolve policy, technical, and procedural problems concerned with multiple agencies, and to generally implement financial review responsibility. Must convince applicants of the necessity for changes in financial plans, systems, and procedures to meet standards for financial qualifications.

Occasional contacts with top level Federal, State, and industrial executives in providing and obtaining information on the status of particular financial matters and in implementing additions and changes to the program.

Defends judgments concerning the soundness of applicants' financial condition and qualifications before the Atomic Safety and Licensing Board.

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RESPONSIBILITY FOR DECISIONS

150

Supervision Received

Senior Financial Analyst.

General Supervision "B".

Consults with Senior Financial Analyst on scope and direction of participation in prehearing activities and testimony dealing with hearings. Discusses policy implications of various license conditions to be recommended or approved.

Guidelines include principles and accepted practices in the field of financial analysis, electric utility economics and accounting, the Energy Reorganization Act and its implementing rules, policy directives from the NRC management, and the decisions of licensing boards and the courts.

Independent Action

In carrying out responsibilities, monitors financial performance of electric utility industry, investigates potential adverse financial developments affecting applicants and licensees, and identifies potential action which should be taken by the Commission.

Makes determinations as to the financial soundness of applicants and recommends license stipulations, where required.

Represents the Assistant Director for Quality Assurance and Operations in conferences with the Federal Energy Regulatory Commission, applicants, and intervenors. Determines the economic theories, assumptions to be utilized, information required, and steps to be taken in financial analyses.

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SUPERVISION EXERCISED

None.

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WORKING CONDITIONS

5

Normal.

EVALUATION OF GS-1 - 15 POSITIONS

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EFFORT

5

Normal.

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TOTAL SCORE

765

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DATA TRANSCRIBER, GS-0356-3

## BENCHMARK

## FUNCTIONAL STATEMENT

Operates data processing machines such as Printing Card Punch, Card Verifier, Interpreter, and Sorter. Obtains machine repair or maintenance services as required.

## REGULAR DUTIES

Reviews incoming source documents to determine which have previously established instructions on file and which have new instructions attached; pulls previously established instructions from file and attaches to source documents where appropriate. Reviews instructions regarding data and discusses any questionable items or features with supervisor or the originator as necessary. Corrects any obvious errors or deviations from the written instructions or established programming rules.

Determines probable duration of each key punch project as compared to date of completion requested by originator and informs supervisor of any possible conflicts in priorities which may require a change in work schedule.

Selects appropriate data from source documents per written instructions and punches data onto cards via the printing card punch machine. Uses the full keyboard in transcribing interspersed alphabetical and numerical characters. Nature of the information to be transcribed requires frequent use of the special function keys and double keying to transcribe special symbols. Determines format required for the keypunch program card (acts as a master control card) and enters the card into the machine by the method appropriate for the particular machine.

Codes items not coded on source documents when proper codes can be determined based on written instructions. Notifies the supervisor of trends in coding errors or of major coding errors which would prevent the completion of a keypunch project.

Determines different procedures to be used during the transcription of a single document. Source documents received for transcribing involve diverse formats, and there is a variety of information contained in the source documents. In several instances, the information on the source document is not in the same sequence as it must be to be transcribed.

Advises and assists inexperienced keypunch operators in applying techniques which can save wear on the machine, speed up the keypunch process, and reduce the number of manual operations on the part of the operator.

Uses electronic card sorter to sort various card-punched files into sequences required for use by the computer in preparation of recurring or special reports.

Occasionally assists in the operation of the remote job entry terminal.

Maintains detailed records of all source documents received and card punching performed.

Assists in maintaining liaison with the keypunch contractor by providing keypunch instructions and arranging keypunch schedules.

Performs other keypunch duties related as assigned.

## ANALYSIS

## BASIC SKILLS

145

Ability to operate printing card punch and card verifier machines efficiently and accurately at a high rate of speed.

Ability to operate a card interpreter and card sorter. Ability to punch and verify cards from a wide variety of source documents, which may require the deciphering of poorly written letters and numbers.

Knowledge of the data to be transcribed sufficient to be aware of data items that require variations in the transcribing procedures. Knowledge of the data sufficient to detect material where omissions or errors in coding have occurred and to locate the proper code in such cases.

Knowledge of various rounding procedures and abbreviation systems sufficient to be able to detect obvious errors in source documents.

Typing ability sufficient to maintain typed, detailed records of all source documents received and card punching performed.

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CONTACTS

40

Frequent personal contacts with the supervisor and co-workers in the Remote Job Entry Terminal room to receive work assignments and to solve key punching problems.

Frequent personal or telephone contacts with personnel of other offices to verify data or solve problems concerning source documents being used in cardpunching or verification.

Contacts with keypunch contractor to provide instruction and arrange schedules.

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RESPONSIBILITY FOR DECISIONS

70

Senior Systems Analyst.

General Supervision "B".

Guidelines are written statements of established procedures and oral instructions. The instructions for transcribing information are varied and extensive because of the different procedures required.

Independent Action

Recommends simplifications and improvements in operations procedures.

Creates format and enters program cards for the printing card punch and the card verifier machines.

Notifies supervisor of trends in errors in coding of source documents or of errors which prevent the completion of a keypunch assignment.

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SUPERVISION EXERCISED

None.

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WORKING CONDITIONS

10

Works in a room with other machine operators, where the variety of machines in use creates an almost continuous elevated noise level.

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EFFORT

10

Work involves considerable visual effort on repetitive-type work, which produces fatigue. Physical effort is required in carrying trays of cards weighing from 20 to 40 pounds.

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TOTAL SCORE

275

PERIPHERAL EQUIPMENT OPERATOR, GS-0332-4

BENCHMARK

FUNCTIONAL STATEMENT

Operates various types of peripheral computer equipment which support the computer operations of the division.

REGULAR DUTIES

Controls access to the remote job entry facility, admitting only those persons for whom such access has been approved.

Operates various types of peripheral computer equipment (which operate both on and off line) such as a card reader, a card punch, a high speed printer, a remote job entry terminal console, and a plotter.

Assists various users of the remote job entry facility in the input and output of their computer programs.

Monitors operation of the peripheral equipment to assure that problems such as card jams or jammed paper feeders are quickly detected and corrected.

Operates printing card punch, interpreting punch and card verifier in preparation of data for entry into remote job entry equipment.

Maintains production, operation, and supply records for the remote job entry facility.

ANALYSIS

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BASIC SKILLS

155

Ability to operate various types of peripheral computer equipment such as the remote job entry console, card reader, plotter, high speed printer, and card punch.

Ability to diagnose and correct simple mechanical problems (such as card jams or jammed paper feeders) associated with peripheral computer equipment.

Basic knowledge of data submission requirements for entering jobs to the computer center through the remote job entry terminal. Ability to assist scientific and technical personnel in the input and output of their computer programs.

Thorough knowledge of the security procedures for use of the remote job entry terminal.

Ability to maintain production, operation, and supply records for the remote job entry facility.

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CONTACTS

40

Continuous contacts with users of the remote job entry facility for controlled entry purposes.

Continuous contacts with computer users to accept, schedule, input, and output data.

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RESPONSIBILITY FOR DECISIONS

75

Supervision Received

Computer Operations Supervisor.

General Supervision "B".

Guidelines are NRC security procedures; operating manuals for remote job entry equipment, computer center procedures for submission of jobs; and users' manuals for computer-based systems such as RMS, etc.

Independent Action

Determines authorization status of individuals seeking access to the remote job entry facility.

Monitors operation of the equipment in the remote job entry facility and corrects problems such as card jams when needed.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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10

The operation of the peripheral computer equipment produces an almost continuous elevated noise level.

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**EFFORT**

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10

Normal, except when lifting batches of computer printouts or trays of cards weighing 20 to 40 pounds.

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**TOTAL SCORE**

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290

**EVALUATION OF GS-1 - 15 POSITIONS**

COMPUTER AIDE, GS-0335-6

**BENCHMARK****FUNCTIONAL STATEMENT**

Responsible for the timing and sequencing of data input to the computer and the subsequent handling and distribution of the computer output for assigned computerized information systems.

**REGULAR DUTIES**

Receives input documents from various users within NRC and reviews the documents to assure that the documents are the correct kind for the specified computer system. Responsible for four or five different computerized systems which may or may not require the input data to be keypunched. For example, the Commission Staff Papers system is on-line requiring no keypunch cards, whereas the Advisory Committee on Reactor Safeguards system requires a great number of cards. Reviews input documents to assure that necessary items are coded and that the type of information coded (whether alphabetic or numeric) is appropriate for the data element. (For example, is Social Security number coded all nine digits in numeric characters?) If information is not complete or consistent, returns input document to user for correction. May correct basic spelling errors, etc., if easily identified. Undetected errors would cause delay due to the time spent in keypunching "incorrect" data and entering them into the computer where they would subsequently be rejected as errors.

Enters input documents on control sheet to be keypunched. After keypunching operation, reviews input documents versus cards to assure that all necessary cards have been punched and properly assembled for the applicable computerized system.

Reviews the specific Job Control Manual for the particular computerized system or one of its subsystems. (For example, the ACRS system has nine subsystems. Each system has a separate Job Control Manual.) Based on information in the manual, selects the basic job control language cards which are required to make the currently desired run. Analyzes tape logs and audit trails associated with various computer reports to determine what changes must be made to the basic job control language cards to effect an appropriate and correct computer run. Makes necessary keypunch changes to JCL cards (approximately 20 JCL cards per subsystem in the ACRS system, for example). (Changes are required in processing dates, tape label information, processing sequence, etc.) Submits jobs to the remote job entry terminal operator to be transmitted to the contractor computer center.

Determines, in cases where problems occur in the computer run, whether the problem is a result of improper data, incorrect JCL cards or sequence, or a computer malfunction in the hardware or software. Responsible for correcting those problems of a data or JCL nature. Determines necessary recovery techniques to be used to restore files or tapes back to the correct status prior to re-running jobs in order to prevent errors of duplication or excessive re-run costs.

Assures that corrections for input data are prepared for transactions rejected by the computer edit programs. Personally corrects obvious errors, and returns others to users for correction.

Receives computer printouts and reviews the job control language and the computer-operating-system generated messages to assure that the job has been satisfactorily completed.

Based on instructions provided by the user for special requests, or based on local manuals for normal production runs, arranges for such services as microfilming, photocopying, binding, etc., and then distributes reports to the user.

Performs other job-related duties, such as data transcribing, remote job entry terminal operation, as assigned by the supervisor.

**ANALYSIS****BASIC SKILLS**

175

Knowledge of job control language in the currently used computer operating systems and a knowledge of job scheduling and job control techniques sufficient to schedule the input and output of data for assigned computerized management information systems (approximately three or four systems). Knowledge of computer systems and subsystems assigned sufficient to analyze audit trails and tape logs to determine what changes must be made to job control language cards in order to effect an appropriate and correct computer run.

Ability to analyze computer-operating-system generated messages and computer printouts sufficient to determine when errors in job production have occurred.

Knowledge of ADP sufficient to determine the nature of problems which occur during computer runs and to resolve problems resulting from improper data, incorrect sequencing, or incorrect JCL cards.

Knowledge of ADP systems sufficient to determine "recovery techniques" necessary to restore files or tapes back to the correct status prior to re-running jobs in order to prevent problems of duplication or excessive re-run costs.

Ability to read and understand instructions provided by users regarding work to be performed on computer output (photocopying, binding, etc.) and distribution sufficient to arrange for reports to be handled properly and distributed correctly.

Knowledge of automatic data processing terminology sufficient for effective communication with computer operators, computer analysts, programmers, and representatives of user offices.

Knowledge of NRC security and privacy requirements as they relate to the processing, distribution, and storage of documents sufficient to ensure proper handling of information.

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**CONTACTS**

55

Frequent contacts with other division personnel to receive and carry out work assignments.

Frequent contacts with personnel of other offices who submit input data in order to coordinate the correction of data rejected by the computer edit routines.

Frequent contacts with programmers and computer analysts who have the responsibility for maintenance of computerized information systems in order to exchange information about problems in the input and output of data.

Occasional contacts with computer operators at the contractor's computer center to coordinate data input.

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**RESPONSIBILITY FOR DECISIONS**

90

Supervision Received

Computer Operations Supervisor.

General Supervision "B".

Guidelines are systems manuals, local schedules and procedures, and oral instructions.

Independent Action

Schedules keypunching of input data and the input of data to the computer.

Analyzes audit trails and tape logs associated with various computer reports to determine what changes must be made to the basic JCL cards to effect an appropriate and correct computer run.

Determines when errors have been made in job production and steps necessary to correct the errors.

Determines necessary recovery techniques to be used to restore files or tapes back to the correct status prior to re-running jobs in order to prevent errors of duplication or excessive re-run costs.

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**SUPERVISION EXERCISED**

None.

EVALUATION OF GS-1 - 15 POSITIONS

WORKING CONDITIONS	5
Normal office.	
EFFORT	5
Normal clerical.	
TOTAL SCORE	330

## COMPUTER PROGRAMMER, GS-0334-7

## BENCHMARK

## FUNCTIONAL STATEMENT

As a computer programmer undergoing development and training, performs computer programming and related data processing functions for the development and support of computer-oriented management information systems.

## REGULAR DUTIES

Writes computer programs from comprehensive and detailed program specifications where (1) the specific subject matter processes have been identified, (2) the program structure identifies intermediate edits, sorts, merges, etc., and (3) the format and content of all records, files, tape layouts, inputs and outputs to be used are provided.

Develops computer instructions to accomplish clerical transactions, which are the central transactions in such management information systems as the NRC payroll and personnel systems and the Regulatory Manpower System (RMS), and, as such, require the formulation and use of rules for the computer to follow in making decisions, where numerous conditions affect the outcome of actions. Tests all conditions and actions against criteria provided by the user to insure that rules will produce accurate answers.

Assists computer systems analysts in the development, testing, and implementation of management information systems.

Performs tasks assigned for the development of computer-based files, tables, libraries, programs, and procedures normally involving manipulation of a limited number of data items.

Coordinates with data control personnel in the operation and maintenance of established management information systems.

Writes documentation required by NRC Management Directives System in accordance with Federal standards for the definition, use, and operation of computerized information systems.

## ANALYSIS

## BASIC SKILLS

230

Knowledge of general programming techniques sufficient to write computer programs from comprehensive and detailed program specifications.

Knowledge of the subject matter processes being programmed sufficient to formulate and use rules for the computer to follow in making decisions where numerous conditions affect the outcome of actions.

Ability to "debug" computer programs and to trace error conditions in order to correct error producing programs.

Sufficient knowledge of job control language and COBOL to write programs in a language which is compatible with NRC management information systems.

## CONTACTS

55

Frequent contact with other programmers, computer systems analysts, and data control personnel within the Division in order to receive and carry out work assignments.

## RESPONSIBILITY FOR DECISIONS

90

Supervision Received

Supervisory Computer Systems Analyst.

Detailed supervision.

Guidelines are the NRC Management Directives System, the Federal Information Processing Standards (FIPS), local automated systems guidelines, specialized technical manuals on programming, and oral instructions.

Independent Action

Analyzes program unit specifications and determines the detailed operational sequences and machine actions necessary to accomplish the desired results.

Formulates rules for the computer to use in decision-making processes.

Performs tests on programs to insure the accuracy of results.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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5

Normal.

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**EFFORT**

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5

Normal administrative.

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**TOTAL SCORE**

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385

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EVALUATION OF GS-1 -15 POSITIONS

PROGRAMMER/COMPUTER SYSTEMS ANALYST, GS-0334-11

BENCHMARK

FUNCTIONAL STATEMENT

Performs systems analysis and programming for the development, implementation, and maintenance of assigned computerized management information systems.

REGULAR DUTIES

Assists various NRC offices in evaluating their data processing needs in relation to specific computerized management information systems that are assigned to the incumbent. Analyzes users' requirements in order to define more exactly what is needed in terms of modifications to current systems such as special ad hoc reports which need to be programmed or the design of new information systems.

Responsible for systems maintenance and programming for assigned computerized information systems such as the Payroll System, the Budget System, and the Car Pool register. Performs day-to-day maintenance, information retrieval, and approved major modifications to assigned systems as required by changes in legislation, regulations, or management decisions.

Defines problems and processes which are to be converted to computer operation and develops the most efficient and expedient means for their automation by drawing upon a body of tested techniques and adopting them, where possible, to the currently existing systems.

Writes computer programs from general program specifications which provide only a broad picture of the system and identify only the number and general nature of major production runs required and major actions to be included.

Analyzes general information and specifies the processes required in each run to generate the work required; determines the need for any additional intermediate runs necessary for refinement of data; develops formats and layouts for the tape files or records involved; develops tests to assure the accuracy of data output.

Writes documentation required by the NRC Management Directives System in accordance with Federal Information Processing Standards (FIPS) for the definition, use, and operation of data processing systems.

ANALYSIS

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BASIC SKILLS

335

Knowledge of computer hardware, computer software, peripheral equipment, and programming language available within NRC-used computer facilities sufficient to design programs to meet ad hoc information requests from users and to provide day-to-day maintenance or major modifications to assigned computerized management information systems as required by changes in legislation, regulations, or management decisions.

Ability to assist users in determining their data processing needs and the ability to relate their data processing needs to computerized management information systems assigned to the incumbent such as the Payroll System, the Budget System, and the Car Pool register.

Ability to define problems and processes which are to be converted to computer operation and draw upon a body of tested techniques in order to develop an efficient and expedient means of adapting them to currently existing systems.

Ability to write computer programs from general program specifications which require a great deal of analysis in order to convert them into specific processes which will generate the desired work products.

Ability to prepare accurate documentation as required by the NRC Management Directives System for the definition, use, and operation of data processing systems.

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CONTACTS

95

Frequent contacts with representatives of user offices, usually at middle management levels, in order to assist in the evaluation of data processing needs and to propose and discuss computer systems and programs to meet their needs.

Frequent contacts with programmers and computer systems analysts in other NRC data processing groups in order to provide a necessary interface, exchange information, and give or receive assistance in relation to the operation of assigned management information systems within NRC.

Occasional contacts with programmers and computer systems analysts of other Federal agencies in order to obtain and coordinate up-to-date information related to automated data processing systems.

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**RESPONSIBILITY FOR DECISIONS**

115

Supervision Received

Supervisory Computer Systems Analyst.

General Supervision "B".

Guidelines are the NRC Management Directives System, the Federal Information Processing Standards (FIPS), local automated information systems guidelines, and technical operating manuals.

Independent Action

Recommends courses of action open to users in meeting their data processing needs.

Recommends major modifications to assigned systems when deemed necessary due to changes in legislation, regulations, or management decisions.

Determines the most efficient and effective way to meet the users' requests for information.

Performs day-to-day maintenance on assigned computerized management information systems.

Determines specific processes within general program specifications necessary for efficient and accurate output data.

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**SUPERVISION EXERCISED**

None.

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**WORKING CONDITIONS**

5

Normal.

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**EFFORT**

5

Normal.

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**TOTAL SCORE**

555

## COMPUTER SYSTEMS ANALYST, GS-0334-12

## BENCHMARK

## FUNCTIONAL STATEMENT

Performs staff analysis and systems design functions in the planning, development, implementation, and continuing operation of I&E information and data processing systems.

## REGULAR DUTIES

Responsible for developing and implementing plans for meeting current and future information systems requirements of I&E as affected by changes in legislation, standards, and management policy.

Independently analyzes management needs for types of information in the development of data processing systems. Prepares evaluations of such needs and recommends courses of action for management consideration.

Conducts comparative computer hardware and software evaluations and conducts cost-benefit studies prior to making recommendations for hardware and software selection in order to meet I&E's information needs in the most effective and cost-efficient method. Recommends whether data processing work should be done internally or contracted to outside organizations in order to: be most cost efficient, meet deadlines, or obtain hardware or technical expertise not readily available within NRC.

Provides guidance and assistance to senior project personnel of organizations holding I&E contracts for data processing. Responsible for assuring that required quality and performance standards are understood and complied with. May be assigned to perform day-to-day coordination of the work of contractor personnel in particular functional areas.

Coordinates the implementation and installation of I&E information systems in the Regional Offices. Trains and instructs regional personnel in the use of these systems.

Serves as a technical expert for substantive matters pertaining to I&E information systems.

Responsible for operating and providing necessary modifications to the automated I&E information systems which provide the textual and statistical data required for both the scheduling of inspections of all U.S. nuclear power plants and fuel cycle facilities and the production of reports required by management for the proper analysis of the results of such inspections. Data processed by the I&E information system is further used as input to other information systems within NRC which are used for program control. This duty involves:

1. Determining the most appropriate method of data organization and format for the data base in order to best meet the users' needs.
2. Definition of file composition and file access methods to fit technical requirements of the computer software.
3. Selection of computer language (software) and programming methodology to accomplish the most beneficial and efficient use of the available hardware and software resources.
4. Monitoring usage of the three primary I&E information systems for cost control and budget projection purposes. Provides assistance to I&E staff and other users in particularly complex circumstances involving automated data processing.

Acts as the I&E expert on the use of software systems and as the expert for NIH hardware and software coordination.

Acts as liaison with NIH software specialists on both technical and administrative matters in regards to I&E's use of the NIH computer system.

Advises I&E users of procedural changes to existing data entry systems for current software packages.

Keeps informed of current technological and state-of-the-art developments in methods and procedures for collecting and handling input for data processing systems, in computer techniques, and in equipment or product specifications.

Attends and participates in government and private sector meetings, conferences, etc., concerning information handling techniques and automatic data processing matters.

Performs computer programming and data retrieval tasks when necessary to expedite information requests from I&E management.

ANALYSIS

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BASIC SKILLS

350

Knowledge of the principles, objectives, and techniques for the utilization of automatic data processing systems and technology, sufficient to develop and implement plans for meeting current and future information system requirements of I&E.

Ability to analyze I&E needs for types of management information.

Knowledge of the purposes, uses, capacities, and characteristics of various types of computers and related equipment; an understanding of the logical working of a computer; and familiarity with standard computer languages and other "software" technology sufficient to: conduct comparative computer "hardware" and "software" evaluations and cost-benefit studies to be used as the basis for recommendations to management on "hardware" and "software" selection; and make cost-effective recommendations as to when work should be processed internally within I&E and when it should be contracted out.

Knowledge of automatic data processing systems and technology sufficient to: provide guidance and assistance to project personnel in organizations holding I&E contracts; coordinate the installation and implementation of I&E information systems in the regional offices; and train and instruct regional personnel in the use of information systems.

Knowledge of automatic data processing systems and technology in conjunction with an understanding of the functions and organization of I&E sufficient to operate, and to make necessary modifications to, the information systems which provide the textual and statistical data required for the scheduling of inspections of all U.S. nuclear power plants and fuel cycle facilities, nuclear material licensees, and the production of reports required to analyze such inspections.

Ability to work effectively with individuals at all levels within NRC, NIH ADP offices, and contractor organizations, to provide a high-quality I&E information system and to promote the effective and efficient use of that system.

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CONTACTS

115

Continuous contact with I&E staff at all levels to maintain awareness of their management information needs, to make recommendations, and to provide advice on matters pertaining to information systems development.

Frequent contacts with NRC, regional office, and contractor personnel at the senior staff level to aid in determining policies and procedures involved in the installation and implementation of data processing systems and to establish appropriate relationships between the components of such systems to meet broader information needs of I&E.

Frequent contacts with NRC staff and software contractor firms to determine adequacy of information systems versus I&E needs; to measure the need for change, the degree of change, and to provide training or advice in the use of current, new, or modified systems.

Frequent contact with personnel of organizations holding I&E contracts to provide liaison and to assure quality control on all phases of the contractor's work as related to I&E contractual arrangements for data processing services.

Occasional contacts with representatives of other offices within NRC and representatives from other government agencies and private industry at all levels for the purpose of exchanging information concerning data processing systems and techniques; "software" and "hardware" evaluation and utilization; and to maintain state-of-the-art knowledge in the field of ADP.

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RESPONSIBILITY FOR DECISIONS

130

Supervision Received

Chief, Plans and Analysis Section.

General Supervision "B".

Approved: April 30, 1980

**EVALUATION OF GS-1 -15 POSITIONS**

Guidelines are NRC Management Directives System; I&E policies and procedures; professional manuals and publications in the field of data processing; and requirements of such agencies as Office of Management and Budget, the General Services Administration, and the General Accounting Office.

**Independent Action**

Recommends whether portions of data processing work or special assignments should be done within I&E or contracted to private firms.

Makes recommendations for selection of computer "hardware" and "software" to meet I&E's information needs.

Responsible in general for the I&E program to provide immediate access to computerized data bases.

Works independently in analyzing information handling problems, devising flow charts to depict current and proposed practices, designing and detailing organization of data banks and sequences of operations, solving problems of system design and of intersystem relationships, constructing computer logic flow charts, and developing input procedures.

Develops procedures and practices for issuance in connection with the operation of data processing systems to be followed by I&E headquarters, field offices, and contractor staffs.

**Work Accepted Without Review:**

As a senior systems analyst on projects, work in designing systems or in administration of software packages is not subject to technical review.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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5

Normal office conditions.

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**EFFORT**

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5

Normal.

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**TOTAL SCORE**

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605

EVALUATION OF GS-1 - 15 POSITIONS

COMPUTER SYSTEMS ANALYST, GS-0334-12

BENCHMARK

FUNCTIONAL STATEMENT

Performs systems analyses for design, development, implementation, and operation of computer-oriented management information systems.

REGULAR DUTIES

Assists various NRC offices in evaluating their data processing needs based on general information provided by the user on problems, work areas to be studied, and the kinds of work products desired. Analyzes users' requirements in order to define more exactly what is needed in terms of data processing systems.

Recommends studying additional work areas which could benefit from automation. Recommends excluding certain work areas if they appear to be too costly to automate in comparison to benefits which could be derived.

Designs computer systems which will allow for the most efficient and expedient means of automating those manual processes which need converting. In many cases, designs systems which must handle diverse types of information and which must have a high degree of accuracy and reliability due to the impact of the information system on NRC programs.

Develops systems plans and schedules; builds in numerous controls to check the accuracy, consistency, and completeness of data at various points in the workflow; determines appropriate processing cycles and designs files and record storage methods to accommodate irregular fluctuations in work volume and schedules and frequent changes to records in the system; anticipates the nature of inquiries and special reports that may be demanded; assures that the system will have the required information available and that it will be capable of producing the necessary output in an efficient and economical manner.

Prepares overall program structure specifications and designs functional computer programs required for the particular data processing system. Designs input and output forms, tests and debugs the system, and provides for system implementation.

Writes documentation in accordance with requirements of the Management Directives System and local policies, and in accordance with the Federal Information Processing Standards (FIPS) for the definition, use, and operation of data processing systems.

Assists in providing maintenance and in some cases major modifications to currently existing systems in order to meet the users' changing information needs. Examples of current systems that have major impact on either administrative or program support are the Personnel System, the Materials Licensing Information System, and the Reactor Licensing Information System.

Provides recommendations for "hardware" and "software" purchases based on information gained through information and demonstrations provided by vendors relating to specific computer equipment and software packages.

Cooperates with other computer specialists within NRC and in other agencies to share information which aids in the beneficial use and development of information systems within NRC.

Participates in the training of other division personnel in both programming and systems analysis work as needed.

ANALYSIS

BASIC SKILLS

365

Ability to analyze and evaluate work processes to determine their suitability for adaptation to automated data processing systems.

Knowledge of computer hardware, computer software, peripheral equipment, and programming languages within the computer industry sufficient to design totally new automated data processing systems or to make major modifications to current systems in order to meet the needs of the user in an efficient and cost-effective manner.

Abilities to: develop systems plans and schedules; evaluate the structure and flow of data in the system in terms of such things as desired results and available raw data; prepare overall program structure specifications; and design functional computer programs required for particular computers and peripheral equipment.

Ability to prepare documentation which is in accordance with requirements of the NRC Management Directives System and local policies and in accordance with Federal Information Processing Standards (FIPS).

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CONTACTS

110

Frequent contact with all levels of personnel at NRC in order to advise on the feasibility of automating work processes, to explain the costs and benefits of such automation, to assist in the evaluation and definition of work processes to be automated, to convince officials of the appropriateness of proposed systems, and to follow up on the subsequent design and implementation of data processing systems.

Frequent contact with programmers and analysts in other NRC data processing groups in order to provide a necessary interface, exchange information, and give or receive assistance in relation to the operation of various management information systems within NRC.

Occasional contact with programmers and analysts of other federal agencies in order to obtain and coordinate up-to-date information relating to automated data processing systems.

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RESPONSIBILITY FOR DECISIONS

130

Supervision Received

Supervisory Computer Systems Analyst.

General Supervision "B".

Guidelines are the NRC Management Directives System, the Federal Information Processing Standards (FIPS), local automated information systems guidelines, and technical operating manuals.

Independent Action

Recommends action necessary for the development of automated data processing systems from problem definition to the completion of the operational systems.

Recommends studying additional work areas which could benefit from automation or excluding areas under study which would not benefit from automation.

Makes recommendations for "hardware" and "software" purchases.

Determines the most efficient and effective use of computer hardware and software for the development of information systems.

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SUPERVISION EXERCISED

None.

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WORKING CONDITIONS

5

Normal.

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EFFORT

5

Normal administrative.

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TOTAL SCORE

615

**EVALUATION OF GS-1 - 15 POSITIONS**

**URANIUM PROCESS ENGINEER, GS-0801-11**

**BENCHMARK**

**FUNCTIONAL STATEMENT**

Performs evaluations and analyses on assigned portions of licensee applications for uranium milling facilities. Portions assigned may be either environmental reports or safety analysis reports, or a combination of portions of both environmental and safety, subject to instructions and review from the Section Leader or a senior engineer who is responsible for coordinating the entire safety and environmental review of the uranium milling facility.

**REGULAR DUTIES**

Reviews and evaluates one or more of the following portions of applications for initial license or license renewal of uranium milling facilities which convert ore to yellowcake:

- a. Evaluating the adequacy of the proposed site from an environmental and radiological safety standpoint to assure that proposed activities at the site can be conducted within prescribed Federal, State, and local standards.
- b. Evaluating the proposed design bases of the principal structures, systems, and components of the plant from the standpoint of sound engineering design and safety standards.
- c. Evaluating the adequacy of equipment and facilities which will be used by the applicant to protect health and minimize danger to life of workers and surrounding population from radiological hazards.
- d. Evaluating the adequacy of the system for management and disposal of mill tailings to assure that the applicant's system reduces radiation exposure to the public to as low as is reasonably achievable and that the system meets prescribed standards for protection of environmental values.

Recommends necessary technical conditions and limitations to be incorporated in licenses on the assigned portions of the mill reviewed.

Provides and obtains factual, technical information to licensees' and applicants' technical personnel to obtain clarification of plans and to complete the record.

Prepares drafts of questions to be presented to licensees and applicants for review and incorporation into correspondence and reports by higher level management.

Reviews and comments on portions of drafts of regulations, standards, and guides prepared by other personnel.

**ANALYSIS**

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**BASIC SKILLS**

330

Knowledge of principles, theory, and practice in the field of uranium milling equivalent to that obtained through a B.S. degree in chemical, mechanical, civil, or nuclear engineering, supplemented by a few years of experience in order to evaluate and make recommendations on portions of applications for license.

Ability to evaluate conventional technical and administrative aspects of uranium mill license applications including site, design layout, environment, equipment, administrative procedures, and waste management.

Ability to communicate clearly, orally and in writing, on a variety of factual technical matters in order to present findings and results of the review as a basis for licensing decisions.

Basic knowledge of Atomic Energy Act, as amended, and NEPA and associated regulations and guides, precedent, appropriate published NRC standards, and practices relating to the licensing of uranium mills.

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**CONTACTS**

8'

Frequent communication with middle management and technical personnel of licensees and applicants for the purpose of exchanging factual, technical information and to obtain clarification and reconciliation of licensee and applicant plans and provisions for health and safety.

Occasional contact with technical and administrative staff throughout NMSS and its contractors for the purpose of exchanging technical information and providing findings and recommendations.

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**RESPONSIBILITY FOR DECISIONS**

**100**

Supervision Received

Section Leader, Uranium Mill Licensing Section, Fuel Processing and Fabrication Branch

Direct Supervision.

Work is reviewed in detail on new or unusual issues or problems by the Section Leader or a senior member of the Section.

Guides are NRC division and branch policies, regulations, guides and procedures and Federal, State, and local standards applicable to uranium milling. Guides are generally applicable but require interpretation relative to specific applications.

Independent Action

Prepares drafts of material for review by Section Leader or senior section members.

Recommends approval, disapproval, or revisions to assigned portions of uranium mill plans assigned for review.

Assures that technical data presented by applicants are accurate and meet NRC safety and health criteria.

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**SUPERVISION EXERCISED**

None.

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**WORKING CONDITIONS**

**5**

Normal.

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**EFFORT**

**5**

Normal.

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**TOTAL SCORE**

**525**

**EVALUATION OF GS-1 - 15 POSITIONS**

NUCLEAR ENGINEER, GS-0840-11

BENCHMARK

**FUNCTIONAL STATEMENT**

As a specialist in areas of core performance and subsystems, is responsible for evaluating discrete portions of the nuclear design and operational aspects of reactors, both proposed and under construction. Those portions cover such matters as core power distributions, reactivity control, core power stability, and power oscillation. Work is generally performed for senior level engineers within the Branch who are reviewing total core performance.

**REGULAR DUTIES**

Core Power Distribution

Examines the information presented in Safety Analysis Reports to determine that core power distributions for the reactor can reasonably be expected by design and control to fall within the reactor's design limits throughout all normal operation.

Reactivity Control Provisions

Evaluates applicants' presentations to determine that suitably conservative reactivity coefficients have been employed in reactor analyses for establishing control requirements, assessing power stability, and evaluating accidents.

Examines the tabulation of control requirements, the associated uncertainties, and the capability of the control system to meet its requirements. Determines by study of calculations and experimental data that values are realistic and conservative.

Analytical Methods

Ascertains that computer codes used in the nuclear design and performance evaluation are described in sufficient detail to establish that theoretical bases, assumptions, and numerical approximations are acceptable, that nuclear data are acceptable, and that methods used to calculate important reactor physics parameters are of acceptable accuracy.

Determines that the calculation of power oscillations and stability indices for xenon induced and non-xenon induced reactivity transients are presented in sufficient detail to confirm that the methods used are acceptable.

General

Prepares drafts of safety evaluations that deal with the nuclear design aspects of reactor safety and provides technical information to other NRC divisions and offices on matters related to nuclear design.

ANALYSIS

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**BASIC SKILLS**

350

Requires a knowledge of reactor physics and nuclear engineering sufficient to determine the adequacy of proposed nuclear reactor subsystem or component designs in order to assure that the reactor can operate safely.

Requires, in addition, some basic knowledge of the principles, theories, and practices in the fields of reactor simulation and numerical analysis techniques adequate to evaluate analytical models used in the safety analysis of highly complex power reactor systems.

Must be able to present technical data orally and in written form so that NRC technical management and applicants can comprehend the significance of technical evaluations and conclusions.

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**CONTACTS**

85

Frequent contacts with engineers, physicists, and middle level supervisory personnel of reactor vendors, electric utilities and other NRC offices. Contacts are for the purpose of obtaining or presenting factual information on

complex technical matters associated with the safety of design and operation of power reactors. Must at times explain technical positions and reconcile them with the technical viewpoints of others on individual questions affecting components or subsystems.

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**RESPONSIBILITY FOR DECISIONS**

100

Supervision Received

Section Leader, Reactor Physics Section, Core Performance Branch.

Direct Supervision.

Frequently performs portions of reviews for higher level technical review engineers.

Guidelines used are Regulatory Guides, Standard Review Plans, and Tit. 10 of the Code of Federal Regulations.

Independent Action

Incumbent is responsible for assuring that data presented by applicants meet safe design criteria for proposed reactors in the areas of core power distribution, reactivity control, reactor physics methods, and general nuclear design.

Approval of assigned portions of the nuclear design of reactors is given a general review by supervision or higher level engineers; however, new or unusual areas of safety concern or noncompliance with regulatory requirements are reviewed in detail.

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**SUPERVISION EXERCISED**

None.

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**WORKING CONDITIONS**

5

Usually normal office conditions. Moderate amount of travel involved.

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**EFFORT**

5

Normally minimum effort. Some walking and climbing involved during reactor or facility inspection.

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**TOTAL SCORE**

545

NUCLEAR ENGINEER, GS-0840-12

## BENCHMARK

## FUNCTIONAL STATEMENT

As a Nuclear Engineer on the staff of the Fuel Behavior Research Branch, Division of Reactor Safety Research, undertakes research assignments on the behavior of fuel assemblies (e.g., fuel pellets, fuel rods and cladding, fission products) under normal, abnormal, or accident conditions. Independently undertakes assignments of limited criticality or priority; participates with senior nuclear engineers on assignments of significant criticality, complexity, or priority; manages assigned research contracts with government or private research laboratories.

## REGULAR DUTIES

May undertake any or all of the following as assigned by the Branch Chief:

Limited research assignments.

Undertakes assignments of limited criticality relating to fuel behavior research safety on such inquiries as the behavior of fuel pellets in the event of a LOCA (loss of coolant accident) to determine the fission gases produced, the conditions basic to such production, the nature and extent of internal pressures produced by the released gases, and the nature of the radioactive debris released in the event of cladding failure due to the excessive internal pressures; or to identify the chemical and physical processes which occur when molten core materials contact concrete, the gas production rate, penetration rate, thermal aspects of decomposed concrete; or research on the magnitude of fuel pellet swelling during a temperature transient and on the visco-elastic properties of fuel pellets when contained by cladding.

Participates as back-up to a senior nuclear engineer, managing a large scale fuel behavior research program, e.g., in-pile tests designed to provide integral fuel rod test data for the verification of fuel rod models and computer codes using the Power Burst Facility (PBF) under abnormal power, flow and energy density conditions, and corroborative tests being conducted by foreign governments. Undertakes assignments as back-up to the senior nuclear engineer (e.g., on the types, kinds, purposes, and placement of various instruments used during the experiments for measuring heat transference, coolant flow, meltdown rates, gas types, and quantities. Additionally, in conjunction with senior nuclear engineer, develops a program to be conducted by the contractor for the development of new or improved instruments for the conduct of tests. Exercises comprehensive knowledge of nuclear physics and allied engineering disciplines in order to work effectively with the contract research organization as well as the senior nuclear engineer managing the program.

Assignments incident to the above or additional include:

- Reviewing proposals for research contracts for government, university, or private research laboratories for clarity and pertinence of proposal, completeness as a scientific undertaking, and adequacy using professional understanding of nuclear physics, scientific research methods, and the prospective value and relationship of the objectives of the proposed study to the objectives of the nuclear safety research program.
- Analyzing the justifications submitted for such proposals in terms of funds requested, caliber of research personnel to be used, nature of equipment and facilities to be used; and preparing comments and recommendations to the Branch Chief as to the pertinence of such data and their likely contributions to the successful completion of the objectives in the proposal.

Keeping abreast of the technical literature in the field to be alert to new approaches and understandings as well as to preclude continuation of research in subjects which have approached the point of diminishing returns or which are sufficiently duplicative as to preclude additional expenditures of funds. Bringing to the attention of the Branch Chief new findings, information, new techniques, significant breakthroughs for consideration in future contract proposals.

Prepares requisite reports and initiates correspondence pertaining to the projects under his cognizance.

Justifies the need and cost of specific activities undertaken, based on understanding of technical features of a project and how it can contribute to the overall objectives of the Division's nuclear safety development program.

Provides assistance to other offices, industry, and other agencies in the area of nuclear fuel safety analysis and evaluation.

Prepares reports for presentation of the program to higher levels in the Commission.

Evaluates contractor performance in terms of adequacy and quality of work, costs, and meeting schedules in matters pertaining to fuel safety research. Makes recommendations regarding redirection of efforts based on changing program requirements, potential application of results, or contractor performance.

Approved: April 30, 1980

Provides technical coordination for assigned programs among contractors engaged in interrelated development, testing and safety programs by careful review of progress and results, and the subsequent exchange of pertinent information.

Maintains liaison with groups outside the NRC having interests and responsibility in the safety area such as the Advisory Committee on Reactor Safeguards, Environmental Protection Agency, etc.

Evaluates new proposals for research and development and makes recommendations to the Branch Chief for the implementation of such studies.

### ANALYSIS

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#### BASIC SKILLS

365

Knowledge of the principles, theory, and practices in the general fields of chemistry, physics or metallurgy or nuclear engineering. Training and experience equivalent to a B.S. degree with several years of related work experience is desired in order to provide practical experience related to the theoretical work.

Skill in evaluating the potential of proposed research and development programs and progress of existing studies undertaken by contractor personnel.

Knowledge of reactor design and operations to the extent that it provides practical background to supplement academic technical information.

Skill in the techniques of presenting scientific material in oral and written form adequate to develop and prepare full, clear, and concise technical reports and analyses.

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#### CONTACTS

95

Continuous contact with NRC middle management and technical NRC personnel. These contacts are for the purpose of developing plans, determining best procedures for obtaining information on the desirability and cost of projects, evaluating technical content of programs and contractor performance, and making recommendations on negotiation and termination of contracts.

Continuous contact with supervisory personnel in NRC contractor organization, both national laboratories and industrial progress and schedules, obtaining information on fuel procurements and special nuclear material matters, and to assure technical coordination among contractors.

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#### RESPONSIBILITY FOR DECISIONS

135

##### Supervision Received

Chief, Fuel Behavior Research Branch.

General supervision "B".

Guidelines are Division of Reactor Safety Research and overall NRC policies, procedures, and established engineering and scientific principles.

##### Independent Action

Makes technical recommendations to the Chief, Fuel Behavior Research Branch, in connection with assigned responsibilities in the reactor safety research program on the following:

Scope and content of experiments.

Funding levels of tasks in research projects and proposals. Applications of the results of contractor research. Technical coordination methods, schemes, and plans.

Definition (in cooperation with the contractor) and evaluation of C level program schedules of contractors.

**EVALUATION OF GS-1 -15 POSITIONS**

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Conclusions about the contractor's technical performance.

Work Accepted Without Review

Theoretical analyses and engineering computations to support recommendations.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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Normal.

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**EFFORT**

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5

Normal.

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**TOTAL SCORE**

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605

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EVALUATION OF GS-1 - 15 POSITIONS

STRUCTURAL ENGINEER, GS-0810-I2

BENCHMARK

FUNCTIONAL STATEMENT

Serves as a professional engineer in the Structures and Components Standards Branch, Division of Engineering Standards, specializing in standards, codes, and criteria on the design and application of structures of structural steel, reinforced concrete, and prestressed concrete used in the construction of nuclear reactor plants and facilities. Specifically, is responsible for initially defining, developing, evaluating, and refining drafts of standards, codes, and criteria and monitoring their coordination through multiple operational, legal, and editorial reviews for ultimate approval and issuance by the NRC as regulatory guides or incorporation into National Standards acceptable to the NRC for the licensing, operation, and inspection of nuclear reactor plants and facilities.

REGULAR DUTIES

Reviews proposals for standards, codes, and/or criteria for concrete structures initiated either as a result of his own analysis of the situational need or based on submissions for any or all of the following: NRC licensing officials, NRC inspection and enforcement officials, findings and recommendations of the NRC Office of Nuclear Regulatory Research, petitions from the public, proposals from professional engineering societies, architectural and construction firms. Proposals are reviewed to determine if they are to be acted upon and if so, their nature and extent, i.e., new standards, additions, modifications, deletions, correlations, and clarifications.

Reviews with Branch Chief, or designated technical reviewer, extent of effort required, i.e., whether a minor revision in the current standard would be sufficient or whether an intensive effort is necessary to meet the NRC needs.

Researches background licensing applications issues; inspection reports and issues; public hearings; reports of tests; current state-of-the-art, etc. Confers with potential users of the proposed standard - the considerations and complexities at issue; the kind of standard needed, i.e., included into a national standard, a report offering guidance, a regulatory guide or Federal regulation and whether in the instant situation the standard or code should offer general criteria or should be detailed and prescriptive or whether it should consist of a concise statement followed by commentary expanding on: the sensitive issues: e.g., the sample calculations, provisions for operating structures, permissible redistribution of stress, and allowable percentages of variation.

Determines approach to be taken considering the nature of the standard required and sufficiency of available material and reports, i.e., draft new standard for coordination and review; suggest additional research and/or testing; propose contractual assistance; propose joint undertaking with interested industrial sources and professional societies.

Reviews alternative technical and administrative approaches with supervisor or designated technical reviewer particularly as to time required; relative priority; personnel and funds needed; inhouse or contract approvals; prospective impact of standard.

Prepares proposals for contract support for supplementary information data, tests, or for contractual review of standard at issue - indicates scope of project, tasks to be undertaken, nature of report, etc. Serves as technical representative for NRC in the contract. Evaluates ability of potential contractors and recommends selection. Monitors work of contractor to assure adherence to scope of work, schedules, utilization of professionals; clarifies for contractors technical issues such as loading definitions and categories, adequacy of safety margins, variations in load combinations affecting the concrete structure, etc.

Coordinates the review of the proposed standard, code, or criteria through various NRC user organizations, legal offices, professional societies, industry and editorial services and makes modifications and adjustments as appropriate. As necessary to assure coordination may chair a group of NRC users, public intervenors, and industry officials to review the proposed standard, and based on the framework of earlier discussions with supervisor or designated technical reviewer, negotiates or accepts compromises to improve the standard while assuring that the safety and health of the public will not be compromised.

Prepares "clean" draft of the proposed standard, code, or criteria incorporating all comments and suggestions secured during the coordination and review process. Prepares an "impact" statement expressing the purpose of the proposed standard, the impact of its effect on other safety issues, the probable cost implications to the nuclear regulatory staff and to the reactor industry, the prospective value of the standard to public safety, NRC licensing and inspection officials, etc. Also, indicates the proposed time lapse for the implementation of the standard, i.e., backfitted to older plants or new plants within a specified short period or whether additional time should be granted for testing and validation.

Serves as member cognizant of and responsible for expressing the interests of the NRC and ASME, ASCE, ACI, and other ANSI national standards working committees developing standards for use as a basis for licensing decisions. Attends meetings. Considers status of draft standards for submittal to NRC review process. Reviews, comments, recommends changes, and coordinates NRC review of proposed national standards as a potential basis for nuclear facility licensing decisions. Resolves conflicting comments and forwards NRC comments to standards working committees.

Acts as a technical advisor to SD management. Investigates and participates in development of solutions to potential generic problems in the field of structural engineering.

Participates in interoffice task forces at a working level for resolution of generic problems.

Makes presentations to ACRS subcommittees and internal NRC review committees on issues related to standards, contents of standards, and assessments of value and impact of proposed standards.

Performs interdisciplinary tasks as assigned.

Performs administrative tasks as assigned for monitoring or coordinating a branch activity.

Participates in peer group reviews and evaluations of scope of work statements and the results of technical support work.

#### ANALYSIS

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#### BASIC SKILLS

360

Sound knowledge of the basic principles, theories, and practices in the field of structural engineering as evidenced by training and experience equivalent to a B.S. degree in civil engineering and several years of practical experience or equivalent. Competence must be adequate to understand and verify complex calculations for the design of nuclear facilities and contents of research reports. Ability to separate basic engineering principles and practices from unproven theories or proposals.

Experience in the design, construction, operations, and evaluations of nuclear plant structures and facilities sufficient to estimate the value and impact of the requirements of proposed standards.

Demonstrated ability to grasp technical problems in order to coordinate the formulation of clear, concise reactor standards, codes, and criteria. Requires a good knowledge of the Nuclear Regulatory Commission's regulations, principles, and procedures. Requires knowledge of national laboratory operations sufficient to control efforts on a contract service task.

Ability to meet and deal effectively with technical representatives of the NRC, its contractors, industry, and other government agencies.

Ability to make clear technical presentations, orally and in writing. Ability to present complex technical issues by relating them to the broad background of a general technical or management audience.

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#### CONTACTS

115

Continuous contacts with the technical staff of the Office of Standards Development and other NRC offices as a part of the fulfillment of regular duties in development of standards, including obtaining viewpoints on needs from user organizations and obtaining endorsements and concurrences on proposed drafts of standards. This involves reconciling conflicting viewpoints and needs of various users.

Frequent contacts with contractor personnel on technical and administrative matters to control, schedule, and coordinate tasks of contract service efforts.

Occasional contacts with the public to provide clarifications or other information with respect to existing regulatory guides or national standards.

Occasional contacts with consultants, research personnel, and other potential sources to obtain supporting information for regulatory guides or national standards.

EVALUATION OF GS-1 - 15 POSITIONS

RESPONSIBILITY FOR DECISIONS

120

Supervision Received

Branch Chief, Structures and Components Standards Branch.

General Supervision "B".

Guidance on technical and procedural matters will be provided by other senior-level branch personnel.

Supervision is general on technical matters consisting of initial direction, occasional review of problems and progress and intensive review of draft standards and other documents for release to the public. Decisions and judgment in most cases affecting the basis for licensing decisions are subjected to a substantial review and eventually will be subject to extensive NRC reviews.

Guidelines are the NRC Management Directives System, appropriate sections of Title 10 of the Code of Federal Regulations, Office of Standards Development, and project plans.

Independent Action

Recommends:

Approval of draft standards and supporting documents for release to the public.

Consideration to be given to comments from public and other sources regarding NRC standards and other documents.

Acceptance of scope of work statements of contract service efforts in support of regulatory guides and standards.

Action to be taken with respect to assigned tasks of an administrative nature within the branch.

Material for presentations to ACRS subcommittees and NRC review committees.

Work Accepted Without Review

Results of analysis and computations to support recommendations.

Contribution to discussions and working group efforts on drafts of standards and supporting documents.

Evaluation of results of contract service efforts in support of standards where generally acceptable analytical or test methods are utilized.

Endorses:

The acceptability of completion of tasks under contract service efforts.

SUPERVISION EXERCISED

None.

WORKING CONDITIONS

5

Normal office conditions while in Headquarters, with work being performed in shared office space. Extensive travel involved.

EFFORT

5

Normal minimum effort. Some climbing involved when inspecting or working near reactors.

TOTAL SCORE

605

**EVALUATION OF GS-1 - 15 POSITIONS**

**PROJECT ENGINEER, GS-0801-12**

**BENCHMARK**

**FUNCTIONAL STATEMENT**

Serves as a project engineer for the safety review of nuclear power plant construction permit and operating license applications. Plans and coordinates portions of the project management duties assigned to higher level project managers who are responsible for management of the complete action on construction permits and operating licenses. Assists higher level project managers in managing and coordinating portions of the efforts of technical staff personnel in achieving a timely and balanced evaluation of safety matters with respect to siting, design, construction, testing, and operation for nuclear power plant construction permit and operating license applications.

**REGULAR DUTIES**

Manages and coordinates portions of the safety review of applications for construction permits and operating licenses under guidance of higher level project managers who are responsible for licensing actions on complete plants.

Normally assigned specific phases of the safety review to plan and coordinate. For example, may be assigned several of the following duties:

- a. Reviews the content of the applicant's Safety Analysis Reports for assigned projects for the purpose of understanding, from the standpoint of radiological safety, the interplay among components, systems, and structures that comprise the proposed nuclear facility.
- b. Coordinates the review and evaluation efforts of one or two of the specialized safety review branches in the Divisions of System Safety, Site Safety and Environmental Analysis, and Project Management for the project manager who may be coordinating many other specialized reviews being conducted within and outside of NRC.
- c. Integrates into the review the impact of information obtained from reports prepared as a result of field inspections conducted by the Office of Inspection and Enforcement. Responsible for reviewing inspection reports to determine implications for current licensing actions to which assigned.
- d. Attends technical meetings between technical staff members and applicant representatives related to assigned projects.  
Assists the project manager by taking notes, writing drafts of reports summarizing the meetings, and taking specific followup action within NRR on decisions made in the meetings.
- e. Prepares drafts of testimony and coordinates that of other staff members with the Office of the Executive Legal Director in public hearings on assigned projects before Atomic Safety and Licensing Boards, as directed by the project manager.
- f. At the direction of the project manager, arranges for discussions with potential intervenors in hearings related to assigned projects and arranges meetings with them to discuss the nature of their contentions.
- g. Develops and maintains safety review schedules for portions of assigned projects through coordination with the assigned review branches in the Divisions of System Safety, Site Safety and Environmental Analysis, and Project Management.
- h. Prepares portions of the staff's Safety Evaluation Report associated with a licensing application, using inputs prepared by the participating review branches in the Divisions of Systems Safety, Site Safety and Environmental Analysis, and Project Management.
- i. Resolves inconsistencies and differences of opinion among the staff technical organizations and between the staff and the applicants by the use of discussion and persuasion and knowledge of the technical issues and the applicable NRC requirements.
- j. Provides technical information and guidance on safety-related problems and NRC policies and safety philosophy to organizations planning to design and construct nuclear power plants.
- k. As assigned by the project manager, reviews the recommendations of the participating technical review branches in the Divisions of System Safety, Site Safety and Environmental Analysis, and Project Management and the Office of Inspection and Enforcement in order to make judgment as to the completeness of a tendered application for a construction permit or operating license and recommends to the project manager acceptance or rejection of the application for docketing and staff review.

- I. Participates in the development of standards, guides, and codes related to the siting, design, construction, testing, and operation of nuclear power plants by reviewing and preparing draft comments on proposed documents prepared by the Office of Standards Development.
- m. Prepares drafts of written responses to correspondence, including communications from Congressional sources, State and local officials, the general public, and various industrial and civic organizations for assigned projects for review and endorsement or signature by project managers.

#### ANALYSIS

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#### BASIC SKILLS

375

Knowledge of the principles, theories, and practices of nuclear engineering, reactor physics, and systems analysis. Must be capable of reviewing and understanding the efforts of others in highly specialized technical areas, developing comments and questions in regard to design criteria and design features; conducting technical discussions, formulating overall technical judgments, and writing engineering reports. Must have a general understanding of all of the important systems, site safety and operational aspects of nuclear power plant design. These disciplines are diverse and include core physics, reactor thermal-hydraulics, materials engineering, structural engineering, containment systems, reactor systems, instrumentation and electrical systems, mechanical engineering, and such site-related disciplines as meteorology, geology, seismology, hydrology, soils engineering, and demography.

Administrative and management skills are required adequate to coordinate the efforts of staff personnel working in several technical disciplines for assigned projects.

Must understand and have a working knowledge of the applicable laws, regulations, NRC policies, DPM policies and procedures, guidance and safety philosophy regarding nuclear power plant siting, design, construction, testing, and operation.

A few years of experience is required in the field of nuclear engineering in one of the following: reactor physics, reactor design, systems analysis, and operation of reactors.

General knowledge is required of research and development work in the field of nuclear power reactor development conducted by other government agencies and industrial organizations.

Ability to interact with technical personnel and present the staff positions through the knowledge of plant systems, regulatory procedures, and safety concerns.

Skill at communicating complex technical information to such diverse groups as staff engineers and management, utility engineers and management and members of the public.

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#### CONTACTS

120

Frequent contacts with technical and legal personnel at the working and middle-management levels of the NRC staff, primarily in the Divisions of Systems Safety, Site Safety and Environmental Analysis, and Operating

Reactors, and occasionally with the Offices of Inspection and Enforcement, the Executive Legal Director, and Office of Standards Development, for the purpose of managing and coordinating the staff review efforts related to assigned portions of projects.

Occasional contacts with working level and top level technical and managerial personnel of utility organizations, nuclear steam supply system manufacturers, and architect-engineering firms. These contacts generally are for the purpose of discussing and resolving individual technical safety-related issues concerning the siting, design, construction, testing, and operation of nuclear power plants.

Occasional contacts with intervenors and potential intervenors to arrange meetings with them to discuss the nature of their contentions. The purpose is to provide opportunities for intervenors and potential intervenors to meet with staff personnel on an informal basis to permit their concerns to be communicated to the staff for consideration during the review and evaluation process and to also permit the staff to communicate its activities to the intervenors and potential intervenors.

RESPONSIBILITY FOR DECISIONS

12

Supervision Received

Branch Chief, Division of Project Management.

General Supervision "B".

The administrative guides are appropriate parts of Title 10 of the Code of Federal Regulations, the NRC Management Directives System, guides of the Office of Nuclear Reactor Regulation and Division of Project Management.

Independent Action

Recommends:

Approval of portions of review schedules and changes to review schedules related to the staff's safety review of assigned projects.

Approval of construction permits and operating licenses for assigned portions of projects.

Resolutions to technical issues which may impact documented, staff technical positions, or staff policies.

Acceptance or rejection of new applications for docketing based on the completeness of the technical information presented by the applicants.

Approval of the issuance of Safety Evaluation Reports and supplements to Safety Evaluation Reports related to portions of assigned projects.

Concurs:

With the factual and technical accuracy of questions and technical positions prepared by the staff technical organizations prior to transmittal by project managers to applicants for assigned projects.

With the factual and technical accuracy of the various sections of Safety Evaluation Reports and supplements to Safety Evaluation Reports prepared by the staff technical organizations prior to recommending to project managers approval for issuance for assigned projects.

Work Accepted Without Review

Preparation of minutes of meetings with applicants or potential intervenors.

Conduct of meetings with applicants or potential intervenors, as assigned by project managers.

Determination of appropriate amount of coordination necessary and the carrying out of necessary coordination to assure the timely and efficient safety review of assigned portion of projects.

Recommendations to technical organizations as to appropriate resolution of technical issues related to assigned portions of projects where recommendations do not affect documented, staff technical positions or staff policies.

SUPERVISION EXERCISED

None.

WORKING CONDITIONS

5

Normal.

EFFORT

Normal.

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TOTAL SCORE

630

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**EVALUATION OF GS-1 - 15 POSITIONS**

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CIVIL ENGINEER, GS-0810-13

**BENCHMARK****FUNCTIONAL STATEMENT**

As a member of the inspection staff in a Regional Office, the incumbent is responsible for the inspection of nuclear site activities and plant construction that is being carried out within the Region and for providing advice and assistance to members of the Regional staff concerning conditions arising during site exploration, construction or operation of nuclear facilities which require a knowledge of civil engineering:

**REGULAR DUTIES**

Performs inspection of civil engineering activities during construction such as, but not limited to, site preparation, lakes, dams, foundations, containments and structure. Acts as sole or lead inspector when the status of the construction project requires specialized inspection focused on civil engineering aspects. Participates as a team member, responsible for inspecting the civil engineering aspects, when a team of inspectors under the team leadership of a principal inspector is conducting an inspection. Plans the scope of his assigned portions of the inspection in accordance with Office of Inspection and Enforcement and NRC regulations, inspection modules, standards, and guides.

Prepares reports of inspections which contain a description of the incumbent's observations during the inspection and his conclusions regarding conformance of the inspected items with respect to NRC requirements, provisions of the license application and the applicable codes and standards.

Identifies noncompliances and recommends actions to NRC management to cause licensees to achieve compliance.

Acts as a specialist and consultant on civil engineering to the Regional Inspection Staff to provide advice and assistance to other inspectors regarding civil engineering problems which they encounter during the course of their inspections and investigations.

Participates as a team member in investigations of incidents involving or pertaining to facilities or the use of special nuclear or source materials.

Presents the results of his inspections to the ACRS, NRR and others, as requested.

Performs inspections in areas other than civil which his Branch or Section Chief determines the incumbent, through training and/or experience, is qualified to perform.

**ANALYSIS**

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**BASIC SKILLS**

420

Requires a thorough knowledge of the principles of civil engineering equivalent to that gained by completion of B.S. program in these areas of study, supplemented by advanced studies. Requires practical experience in civil engineering of sufficient duration and diversity to develop detailed and thorough understanding of good construction practices, inspection of soils, subsurface preparation, fill placement, piling, grouting, rebar, concrete structures and steel structures, and the ability to identify adequate implementation of license commitments and construction deficiencies which could influence the safety of a nuclear facility.

Knowledge of the engineering methods and techniques associated with an effective reactor construction quality assurance program.

Thorough knowledge of NRC and I&E regulation modules, guides and standards applicable to civil engineering aspects of inspections of nuclear reactor power plants.

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**CONTACTS**

125

Continuous and frequent contact with inspectors in other specialty areas, Branch Chiefs and Section Leaders in the Regional Office to share inspection findings and advise on the civil engineering implications of findings by inspectors in other specialty areas.

Frequent contact with construction personnel and management personnel of the licensee to inspect and report, explain and defend findings concerning licensee's performance. Conducts exit interviews with licensee management when inspections are limited to his areas of expertise; participates in exit interviews as a specialist when inspections are conducted by a team under the leadership of a principal inspector.

Occasionally participates in meetings involving NRC Headquarters management to provide advice about failures or deficiencies because of which regulatory action is being considered to ensure protection of the public.

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**RESPONSIBILITY FOR DECISIONS**

145

Supervision Received

Section Chief.

General Supervision "B".

Guides are appropriate parts of 10 CFR to NRC Management Directives System, I&E inspection plans and modules as well as established I&E techniques and standards for facility inspection.

Independent Action

Plans the detailed scope of assigned inspections and investigations relating to civil engineering aspects of reactor facility components in accordance with NRC requirements.

Advises the reactor inspection staff concerning the cause of failures within the field of civil engineering and the results of his evaluations of conditions which may have led to such failures.

Independently prepares and submits statements of conclusions, recommendations, and technical judgment as to the adequacy of safety and compliance based on inspection findings of licensed activities in his areas of technical specialty.

Recommends appropriate action to deal with noncompliance of licensee.

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**SUPERVISION EXERCISED**

None.

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**WORKING CONDITIONS**

15

Normal working conditions in the Regional Office. Approximately 30-40 percent of working time is required for field inspections and investigation work, which involves exposure to construction hazards, such as open trenches, and excavations, construction equipment and falling objects.

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**EFFORT**

15

The field work requires extensive walking, climbing, standing, and exposure to inclement weather.

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**TOTAL SCORE**

720

METALLURGICAL ENGINEER, GS-0806-13

## BENCHMARK

## FUNCTIONAL STATEMENT

As a member of the inspection staff of a Regional Office, the incumbent is responsible for the inspection of nuclear components that have been manufactured for installation in licensed nuclear power plants within the Region and for providing advice and assistance to other members of the Regional staff concerning conditions arising during construction, inservice inspection or operation of nuclear facilities which require a knowledge of metallurgy, welding, and nondestructive examination.

## REGULAR DUTIES

Acts as sole or lead inspector when the status of the project requires specialized inspection of metallurgical aspects. Participates as a team member, responsible for inspecting the metallurgical aspects, when a team of inspectors under the leadership of a principal inspector is conducting an inspection. Plans the scope of assigned portions in accordance with Office of Inspection and Enforcement and NRC regulations, inspection modules, standards, and guides.

Performs inspections of pressure vessels, piping, reactor fuel, and other nuclear components, as assigned, to ascertain whether these components, their erection, and installation conform to the NRC regulations, provisions of the license application, and provisions of applicable codes and standards.

Performs inspections of nondestructive test procedures, tests, and evaluations of test results. Inspects and reviews documentation associated with baseline and inservice inspections.

Discusses inspection findings with licensee staff and management.

Identifies noncompliances and recommends actions to NRC management to cause licensees to achieve compliance.

Prepares reports of inspections which contain a description of observations made during the inspection and conclusions regarding conformance of the inspected items with NRC regulations, the provisions of the application, and applicable codes and standards.

Provides comments relating to inspection procedures, Regulatory Guides, codes, standards, and Safety Analysis Reports relating to metallurgy, welding and nondestructive examination.

Acts as a consultant in metallurgy on the Regional Office staff to provide advice and assistance to other inspectors regarding metallurgical problems which they encounter during the course of their inspections and investigations. Reviews and makes recommendations concerning metallurgical failures.

Occasionally presents the results of inspections to the ACRS, NRR staff members, and others, as requested.

## ANALYSIS

## BASIC SKILLS

420

Requires a thorough comprehension of the field of metallurgy and an extensive knowledge of chemistry, physics, mechanics, and mathematics sufficient to perform as an expert in the metallurgical problems associated with nuclear reactor components and structures. Requires extensive knowledge of welding and nondestructive examination theory as well as practical experience in the metallurgical welding and nondestructive examination fields. This experience must have been of sufficient duration, depth and diversity to develop an understanding of good practices for fabrication, inspection, erection and testing of pressure vessels, reactor fuel, piping, control rods, metal structures and systems, and other components used in nuclear plants.

Requires extensive knowledge of all current methods of nondestructive testing of metals, familiarity with the conditions which cause failure of typical components in a reactor facility and an understanding of the analytical procedures and methods which are used to identify the cause of failures.

Knowledge of the engineering methods and techniques associated with an effective reactor construction quality assurance program.

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**CONTACTS**

125

Continuous to frequent contact with inspectors in other specialty areas, Branch Chiefs and Section Leaders in the Regional Office to share inspection findings and to advise on the metallurgical implications of findings by inspectors in other specialty areas.

Frequent contact with construction personnel and management personnel of the licensee to inspect and report, explain and defend findings concerning licensee's performance. Conducts exit interviews with licensee management when inspections are limited to his areas of expertise; participates in exit interviews as a specialist when inspections are conducted by a team under the leadership of a principal inspector.

Occasionally participates in meetings involving NRC Headquarters management to provide advice about failures or deficiencies because of which regulatory action is being considered to ensure protection of the public.

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**RESPONSIBILITY FOR DECISIONS**

145

Supervision Received

Chief, Engineering Support Section.

General Supervision "B".

Guides are appropriate parts of 10 CFR, the NRC Management Directives System, I&E inspection plans and modules as well as established I&E techniques and standards for facility inspection.

Independent Action

Plans the detailed scope of assigned inspections and investigations relating to reactor facility components in accordance with requirements detailed in I&E programs and procedures.

Makes findings regarding adequacy of component fabrication, erection, and testing which are based on his observation of these activities at the site of the facility.

Recommends appropriate action to deal with noncompliance of licensee.

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**SUPERVISION EXERCISED**

None.

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**WORKING CONDITIONS**

15

Normal working conditions in the Regional Office. Approximately 30-40 percent of working time is required for field inspections and investigation work, which involves exposure to construction hazards, such as open trenches, and excavations, construction equipment and falling objects.

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**EFFORT**

15

Some physical exertion at construction sites while walking and climbing steps and ladders.

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**TOTAL SCORE**

720

MECHANICAL ENGINEER, GS-0380-13

## BENCHMARK

## FUNCTIONAL STATEMENT

Serves as a mechanical engineer in the Structures and Components Standards Branch, Division of Engineering Standards, specializing in regulations, standards, codes, and criteria on the design, application, and testing of various mechanical components such as fluid system components and their supports used in the operation of nuclear reactor plants. Assignments typically are of a project nature, i.e., they are sufficiently broad and complex as to require analysis and evaluation of a number of aspects, organization of work in phases, and coordination with the activities of engineers in related areas resulting, for example, in the development of multiple standards for the functional adequacy of components relating to applications, design, production, and testing.

## REGULAR DUTIES

Reviews proposals for standards, codes, and/or criteria for mechanical components initiated either as a result of his own analysis of the situational need or based on submissions from any or all of the following:

NRC licensing officials, NRC inspection and enforcement officials, findings and recommendations of the NRC Office of Nuclear Regulatory Research, petitions from the public, proposals from professional engineering societies, designers or component fabricators. Proposals are reviewed to determine if they are to be acted upon and if so, their nature and extent, i.e., new standards or additions, modifications, deletions, correlations, and clarifications to existing standards.

Researches background licensing applications issues; inspection reports and issues; public hearings; reports of tests; current state-of-the-art, etc. Confers with potential users of the proposed standard - the considerations and complexities at issue; the kind of standard needed, i.e., included into a national standard, a report offering guidance, a regulatory guide or federal regulation and whether in the instant situation the standard or code should offer general criteria or should be detailed and prescriptive or whether it should consist of a concise statement followed by commentary expanding on: the sensitive issues: e.g., the sample calculations, provision for loading combinations, permissible redistribution of stress, and allowable percentages of variation.

Plans the development and execution for each assignment taking into account the nature of the standards required, sufficiency of available materials and reports, related standards, and the degree of their currency or development, state-of-the-art, resources needed, and using such information, charts a work program showing the relationship of all relevant activities and inputs together with schedules and identifications of participating or coordinating NRC licensing, research, and inspection officials.

Reviews with the Branch Chief or designated technical reviewer the work plan for accomplishing the project, extent of effort, priorities, resources required, use of contract or "in-house" personnel assistance, etc.

Prepares proposals for contract support for supplementary information data or tests or for contractual review of standard at issue - indicates scope of project, tasks to be undertaken, nature of report, etc. Serves as technical representative for NRC in the contract. Evaluates ability of potential contractors and recommends selection. Monitors work of contractor to assure adherence to scope of work, schedules, utilization of professionals, clarifies for contractors technical issues such as loading definitions and categories, adequacy of safety margins, variations in load combinations affecting the concrete structure, etc.

Prepares for concurrence by policy office a Task Initiation Form defining the necessity for the proposed action, its scope and a preliminary value impact statement justifying the proposed task.

Prepares initial outline of proposed or revisions to standards or regulations and working papers for discussion with technical reviewers or branch chief and preliminary discussions with cognizant individuals in other offices of NRC.

Coordinates the review of the proposed standard, code or criteria through various NRC user organizations, legal offices, professional societies, industry and editorial services and makes modifications and adjustments as appropriate. As necessary to assure coordination, may chair a group of NRC users, public intervenors, and industry officials to review the proposed standard, and based on the framework of earlier discussions with supervisor or designated technical reviewer negotiates or accepts compromises to improve the standard while assuring that the safety and health of the public will not be compromised.

Prepares "clean" draft of the proposed standard, code or criteria incorporating all comments and suggestions secured during the coordination and review process. Prepares an "impact" statement expressing the purpose of the proposed standard, the impact of its effect on other safety issues, the probable cost implications to the

nuclear regulatory staff and to the reactor industry, the prospective value of the standard to public safety, NRC licensing and inspection officials, etc. Also, indicates the proposed time lapse for the implementation of the standard, i.e., backfitted to older plants or new plants within a specified short period or whether additional time should be granted for testing and validation.

Serves as member cognizant of and responsible for expressing the interests of the NRC on ASME, ANS, and other ANSI national standards committees of working and review levels developing standards for use as a basis for licensing decisions. Attends meetings, considers status of draft standards for submittal to NRC review process. Reviews, comments, recommends changes, and coordinates NRC review of proposed national standards as a potential basis for nuclear facility licensing decisions. Resolves conflicting comments and forwards NRC comments to standards working committees, national standards committees at working and review levels.

Prepares response to questions or comments from public or other government agencies regarding standards or issues in his area of expertise.

Coordinates NRC review of proposed national standards as a potential basis for reactor licensing decisions. Prepares an analysis and recommendation in a position NRC might take in the acceptability of the proposed national standard based on the response from the reviews within NRC. Reviews, comments, and recommends changes in proposed ASME, IEEE, and ASME and other ANSI standards.

Acts as technical advisor to all levels of NRC management. Initiates the investigation and participates in the development of solutions to potential generic problems of operability of mechanical components.

Identifies and defines the needs for technical support work for the development of standards to assure operability of mechanical components. Controls contracts service efforts in support of a project of related standards. Assists in the budget formulation and justification process for technical support contract work. May serve as a member of RES Safety Review Committees.

May propose the initiation of interoffice task forces for resolution of generic problems of operability of mechanical components. May serve as chairman or participate as a working member of such task forces.

Makes presentations to the ACRS and its subcommittees and internal NRC review committees.

Performs interdisciplinary tasks as assigned.

Performs administrative tasks as assigned for monitoring or coordinating branch or division activities.

Coordinates assigned interoffice NRC activities relating to major national standards efforts.

#### OCCASIONAL DUTY

Prepares material for public presentations on matters of interest to NRC. Delivers presentations from prepared material after NRC management review.

Under management guidance prepares response to Petitions for Rulemaking for Commission adoption and issuance as a basis for subsequent action. Participates in peer group reviews and evaluations of scope of work statements and the results of technical support work.

#### ANALYSIS

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#### BASIC SKILLS

460

Sound knowledge of the principles, theories and practices in the general field of mechanical engineering as indicated by an advanced degree in mechanical engineering and several years practical experience or equivalent with specific knowledge of nuclear engineering adequate to propose, develop and evaluate highly complex regulations, Regulatory Guides and other standards.

Knowledge of and experience with the design, construction, operation and evaluation of nuclear plant components, structures, and facilities sufficient to understand the value and impact of the requirements of proposed standards.

Thorough knowledge of NRC's regulations, principles and procedures and an understanding of the underlying technical reasons for these regulations.

Knowledge of NRC operations and national laboratories sufficient to plan, coordinate and control a number of complex engineering research and development projects. Knowledge of principles and practices of administration of scientific research and development sufficient to assure that research and development activities are kept on schedule and within their appropriate limitations.

Sufficient knowledge and experience to understand and verify complex calculations of reactor designers and research reports and to separate basic engineering principles and practices from unproven theories or proposals. Demonstrated ability to grasp difficult and complex technical problems in the development and evaluation of clear, concise regulations, Regulatory Guides, and standards.

Ability to deal effectively with and present ideas to diverse, high-level technical personnel on national standards committees.

Ability to make technical presentations clearly and concisely, orally, and in writing.

Ability to chair interoffice task efforts involving multidisciplinary approach directed at solution of generic safety problems of nuclear facilities.

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## CONTACTS

130

Continuous contacts with the technical staff and supervisory personnel of the Office of Standards Development and other NRC offices as part of the fulfillment of regular duties in the development of standards and review of research reports.

Frequent contact with staff and supervisory personnel of other branches in the Office of Standards Development and other NRC offices to coordinate the development and execution of a plan for a project or related standards.

Frequent contact with technical and managerial personnel from other government agencies, the public, and industry when involved in national standards development efforts.

Occasional contacts with members of the public regarding clarification or other information with respect to regulations or standards or other matters.

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## RESPONSIBILITY FOR DECISIONS

1

### Supervision Received

Branch Chief, Structures and Components Standards Branch.

General Supervision "B".

Guidelines are the NRC Management Directives System and appropriate sections of Title 10 of the Code of Federal Regulations, Office of Standards Development policy and program plans.

### Independent Action

Recommends:

Approval of project plans for development of related standards.

Approval of draft standards and supporting documents for release to the public.

Consideration to be given to comments from public and other sources regarding NRC standards and other documents.

Actions to be taken with respect to assigned tasks of administrative nature within the branch.

Material for presentation to the ACRS and NRC review committees and the public.

Adoption of response to Petition for Rule Making.

Endorses:

The acceptability of work statements and acceptability of completion of tasks under contract service efforts where generally acceptable analytical or test methods are utilized.

### Work Accepted Without Review

Results of analysis and computations to support recommendations.

Contributions to discussions and working group efforts on drafts of standards and supporting documents.  
Development of task requirements and evaluation of results of contract service efforts when generally acceptable analytical or test methods are utilized.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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5

Normal office conditions while at Headquarters with work being performed in private office space. Extensive travel involved.

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**EFFORT**

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5

Normal minimum effort. Some climbing involved when inspecting or working near reactors.

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**TOTAL SCORE**

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740

## CRITICALITY AND SHIELDING ENGINEER, GS-0840-13

## BENCHMARK

## FUNCTIONAL STATEMENT

Reviews and evaluates the criticality and shielding of proposed designs of shipping containers for the transportation of fresh and irradiated fuel elements and other radioactive material from the standpoint of their adequacy to comply with regulatory standards. Based on design information and analysis, recommends the approval or disapproval of proposed designs. Prepares for submission to the applicant requests for additional information necessary for making a licensing determination. Initiates development of guides, standards, and criteria, relating to the criticality and shielding requirements for the transportation of radioactive material.

## REGULAR DUTIES

Evaluates the criticality and shielding aspects of packages for shipping radioactive materials involving a normal range of criticality problems. Evaluations include, but are not limited to, criticality and shielding considerations of package designs. Takes into account such matters as the nature of the radioactive material to be shipped, e.g., fuel density and irradiation characteristics; the containment vessel's configuration, mechanical and thermal structure and integrity; the types and quantities of neutron absorbers or indicators; the quantity of radio-nuclides.

Reviews and evaluates the models and specifications, as well as the calculations prepared by the applicant's professional nuclear engineers and physicists, to ensure that NRC standards and requirements are in compliance.

- For shielding, examines such matters as dose point locations; types, quantities, and locations of shielding materials; tabulations of the atomic densities of the constituent nuclides for all shield materials; evaluation of the method used to determine the gamma and neutron dose rates at selected points and the description of the spatial source distribution; applicant's explanation for differences between test calculations for normal conditions and accident conditions; tabulations for flux-to-dose conversion factors; basis for the computer program used in the calculations; and justification of assumptions or analytical procedures, test results, photographs, referenced documents, etc.
- For criticality, examines the calculational and/or experimental methods used to determine the reactivity for the optimized fuel loading intended to be transported, taking into account the material density and the atomic number densities for constituent nuclides under normal and accident conditions; evaluates the nature and findings of experiments used to determine the subcriticalities of the package for various materials; evaluates the acceptability of the demonstrated fuel loading for maximum reactivity for both single package and arrays of packages, including approximations, loading conditions, calculational convergence criteria and cross-section adjustments; reviews justification of results of tests and experiments, including interpolations and extrapolations made in the findings; ascertains the acceptability of reported results of all benchmark calculations made by licensee applicant.

As requested, advises engineers in other branches or agencies on criticality and shielding of facilities for processing and handling source, byproduct and special nuclear material, particularly regarding new package designs.

Determines the technical adequacy of experimental and calculational data and findings contained in applications and ascertains if the data is in reasonable conformity with the regulations of the Commission. If necessary, communicates with the applicant to obtain additional information or clarification required to complete the application.

Prepares written safety evaluations of license applications for shipping packages for unirradiated and irradiated licensed material, for both normal and accident conditions of transport.

Based on consideration of the design information and analysis, recommends the approval or disapproval of proposed designs or prepares for submission to the applicant requests for additional information to make a determination.

Recommends issuance or denial of licenses and necessary technical conditions and limitations to be incorporated in licenses.

Confers periodically with representatives of organizations planning to design and construct shipping packages and provides routine technical information and guidance concerning NRC regulatory requirements, e.g., nature and types of tests and experiments, calculational techniques, computer code usage, formats for presentation of findings.

Develops portions of drafts of guides, standards and criteria under direction and guidance of senior technical personnel which take into account new technologies, results of research and feasibility studies, analysis and evaluations of reports of inspectors and field personnel.

ANALYSIS

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BASIC SKILLS

465

Professional education and experience equivalent to a B.S. degree in physics or nuclear engineering together with at least several years of experience in criticality and shielding work or closely related work.

Knowledge of principles, theory, and practice of nuclear engineering and physics sufficient to evaluate the technical and administrative aspects of license applications with emphasis on criticality and shielding designs aspects of shipping packages.

Knowledge of input for appropriate computer programs and ability to evaluate and perform analyses using technical computer programs for shielding and criticality problems.

Ability to analyze design of shipping packages to determine their technical feasibility and to judge the adequacy of protective measures against hazards and to prepare concise reports and recommendations.

Practical experience in the design and operation of shipping packages involving radioactive material.

Knowledge of the Atomic Energy Act of 1954, as amended, and the Code of Federal Regulations as they pertain to the regulation of atomic energy.

Ability to meet people of varying technical backgrounds to discuss questions of technical content and to explain NRC regulatory authority, responsibility, policies, and procedures.

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CONTACTS

120

Frequent contact with middle level technical personnel of private organizations and State and Federal agencies to interpret NRC safety requirements and policy and to resolve licensing issues.

Frequent contacts with representatives of organizations planning to design and construct shipping packages to provide guidance relative to the Commission's safety requirements.

Occasional contact with representatives of foreign governments to discuss and review shipping packages.

May represent the branch on technical committees, for example, on the development of standards or guides on shielding and criticality, or on joint committees with other engineering specialists calling for the interface of a variety of engineering disciplines.

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RESPONSIBILITY FOR DECISIONS

150

Supervision Received

Chief, Transportation Branch.

General Supervision "B".

Guides are NRC policies and regulations and office directives. Recommendations are normally accepted as those of a professional specialist and are largely unreviewed except for highly controversial issues or unproved concepts.

Independent Action

Recommends issuance or denial of applications based on the requirements of NRC regulations.

Reviews, evaluates, and analyzes the criticality and shielding aspects of proposed designs of devices and equipment containing radioactive material.

**EVALUATIONS OF GS-1 - 15 POSITIONS**

Ensures consistent application of technical criteria, NRC policy, and licensing procedures in each case.

Communicates with middle level technical and management personnel of industry to obtain additional information or clarification of problems concerning license applications.

Prepares correspondence, for the Chief's approval, to applicants to obtain information or to advise of action taken.

Initiates and investigates new approaches to ensure the most optimum shielding and criticality applications considering package integrity, costs, and engineering feasibility.

Prepares safety analysis reports based on the above evaluations.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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5

Normal office conditions with some travel.

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**EFFORT**

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5

Normal.

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**TOTAL SCORE**

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7

**EVALUATION OF GS-1 - 15 POSITIONS**

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**RESEARCH ENGINEER (INSTRUMENTATION), GS-0801-13**

**BENCHMARK**

**FUNCTIONAL STATEMENT**

Provides professional engineering direction over contract laboratories undertaking water reactor safety research regarding the design, development, calibration, testing, and application of instruments used for measuring thermal-hydraulic and related events under a variety of experiments. Instruments must be designed to reliably and accurately produce data on physical events under unprecedented, stressful accident conditions.

**REGULAR DUTIES**

Reviews with the NRC Project Manager responsible for the specific experimental program, to establish the problems and issues in the experiment, past accomplishments, gaps in the knowledge for which data is sought, nature and quality of instruments on line. Analyzes data, issues, problems and evaluates adjustments needed in the instruments on line as proposed by the contract laboratory and determines whether changes in calibration, sequence, location, or use of instruments should be made, whether different instruments should be used, or whether an instrument should be modified or redesigned.

As a result of reviews of state-of-the-art and program measurement requirements, makes recommendations for new instrument development, calibration or upgrading programs. If approved, acts as program manager for these tasks or contracts. Program management duties consist of technical direction, cost and schedule control, and review of results.

Works with staff of contract laboratory to ensure program placement, use, quality and character of instruments to be used in experiments of simulations of water reactor coolant accidents. Indicates changes, modifications or replacement of instruments.

Confers with technical representatives of instrument designers and developers regarding the prospective value of their instruments for use in water reactor safety research; recommends technical changes as necessary; observes and reports on demonstrations of instruments under consideration; confers with staff of contract laboratory regarding introduction and use of new types of instruments for measuring experimental events.

Contributes to the formulation of requirements and performance of research experiments by indicating gaps of knowledge and prospect of obtaining data through the application of strategically located or sequenced instruments.

Confers with Project Manager on results obtained with the instruments and the use of such data to validate predictive data and codes or to construct new predictive data and codes.

Reviews contractor periodic reports and performance concerning the accuracy and interpretation of experimental measurements related to safety analysis for light water reactors and makes appropriate recommendation to project manager and/or Branch Chief as to continuing work or to make program changes.

Assess the results of assigned programs and make recommendations for incorporating the information into national codes, standards, and quality assurance practices as applicable.

Takes a lead role in the Instrumentation Review Group which considers instruments used for plant operations as well as for experimentation.

Keeps informed of current state-of-the-art, attends professional meetings and conferences, serves on panels and seminars and keeps abreast of the activities in the field in universities and contractor laboratories.

**ANALYSIS**

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**BASIC SKILLS**

465

Professional knowledge, represented by a graduate degree or equivalent, of the principles, theories and practices in the physical sciences particularly with regard to the scientific methods for conducting experiments in such areas as power equipment design, process instrumentation, control systems, hydraulics and heat transfer.

Sufficient educational background and practical experience to perform instrumentation engineering functions. Special knowledge and techniques used in two-phase flow and in nuclear fuel measurements of BWR and PWR design and operations to enable independent technical judgments of proposed research programs and evaluation of

test and analytical results. Knowledge of WRSR safety research programs is necessary to coordinate WRSR research activities with other NRC offices and outside organizations including foreign research programs.

Knowledge and experience in the performance of research and development programs, including such aspects as the definition of program requirements, budgets, and the feasibility of obtaining program goals with reasonable schedules and dollar allocations.

Skill in the techniques of presenting scientific material in oral and written form adequate to develop and prepare full, clear and concise technical reports and analyses.

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**CONTACTS**

120

Frequent contacts with branch chiefs and assistant directors in the Division of Reactor Safety Research and with senior professional personnel in other NRC divisions to exchange ideas on mutual problems and to keep informed of changes in areas of special interest, such as instrumentation.

Frequent contacts with senior technical and management personnel of operations offices, national laboratories, national code committees, universities and industrial contractors. These contacts are for the purpose of planning programs, reporting progress of work, evaluation of related programs, providing technical advice and assistance, and coordinating the application of program results with codes, standards, analyses methods, and regulatory criteria.

Occasional contacts with representatives of foreign government and international agencies to discuss specific programs and provide overall coordination related to light water reactor safety research.

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**RESPONSIBILITY FOR DECISIONS**

150

Supervision Received

Chief, Systems Engineering Branch.

General Supervision "B".

Guidelines are overall NRC and Division policies as defined in the organizational responsibilities of the Division of Reactor Safety Research.

Independent Action

Advises the Branch Chief and the A/D for Water Reactor Safety Research regarding types and uses of instruments to meet the goals and objectives of the Division.

Evaluates the technical relevance of instruments used in research programs and recommends changes in scope, funding, and priorities relative to achieving (division) goals and objectives.

Technical decisions relative to programs under his cognizance and provides input for management changes or redirection by the Division Director.

Assists in liaison and overall coordination instrumentation aspects of water reactor safety research activities with other NRC offices and outside organizations including foreign organizations.

Decisions Made Without Review

- a. Resolve day-to-day technical and administrative problems concerning all aspects of the program assigned.
- b. Anticipates problems and takes preventive action.
- c. Plans and schedules site reviews of research progress.

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**SUPERVISION EXERCISED**

None.

Approved: April 30, 1980

**EVALUATION OF GS-1 - 15 POSITIONS**

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**WORKING CONDITIONS** **5**

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Normal.

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**EFFORT** **5**

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Normal administrative effort with frequent contact with field, laboratory and contractor personnel including visits to ascertain program progress.

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**TOTAL SCORE** **745**

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**EVALUATION OF GS-1 - 15 POSITIONS**

**URANIUM PROCESS ENGINEER, GS-0801-13**

**BENCHMARK**

**FUNCTIONAL STATEMENT**

Performs complete evaluations and analyses of the radiological safety and environmental impact potentials associated with license applications, safety analysis reports, and environmental reports for entire uranium milling facilities. Prepares comments and questions on applicant's reports and other submissions and performs independent assessments of the adequacy of applicant's safety programs and the environmental impacts associated with licensing actions. Assists in developing standards, guides, criteria and requirements pertinent to such activities.

**REGULAR DUTIES**

Reviews and evaluates applications for licenses, including safety analysis reports and environmental reports for uranium mill facilities. This involves:

- a. Establishing that the information is in conformity with NRC regulations and adequate to support the evaluations to be undertaken.
- b. Reviewing and evaluating the safety and environmental aspects of the proposed activities and the applicant's proposed program to protect the environment and the health and safety of the general public and plant employees and to assure that proposed activities can be conducted within prescribed Federal, State and local standards.
- c. Evaluating the applicant's technical qualifications, including the training and experience of the members of the applicant's staff, administrative procedures, and emergency plans.
- d. Evaluating the adequacy of the proposed site and the design bases of the principal structures, systems and components of the plant, and the construction, testing and operation of the principal structures, systems and components to assure that sound engineering design and safety standards have been applied.
- e. Evaluating the adequacy of equipment and facilities which will be used by the applicant to protect health and minimize danger to life and property of workers and surrounding population.
- f. Evaluating the adequacy of the system for management and disposal of mill tailings to assure that the applicant's system reduces radiation exposure to the public to as low as is reasonably achievable.

Recommends necessary technical conditions and limitations to be incorporated in licenses.

Recommends issuance of licenses, or makes recommendations for denials, upon determining that a particular application does or does not meet all requirements of the Atomic Energy Act and regulations of the Commission.

Prepares environmental assessments based upon independent evaluation of environmental data on the applicant's facilities and operations.

Contacts applicants to obtain additional or supplementing information in the event the application does not contain sufficient information for an adequate review and to explain needed changes to the application.

Identifies the need for modification of policy, regulations, standards and guides and participates in the development of NRC policy and the drafting of regulations, standards and guides, governing the Commission's regulatory program on uranium milling by reviewing, commenting on, and proposing changes to drafts and proposals.

**ANALYSIS**

**BASIC SKILLS**

465

Professional education with a degree in the physical sciences, chemical, or mechanical or engineering from an accredited college or university or equivalent experience. Detailed and thorough knowledge of uranium milling processes. Competence must be sufficient to evaluate adequately those features of plant systems related to safety and protection of the environment.

Broad experience in the field of radiological safety, including measurement and reduction of radioactive effluent with specific knowledge of their application to uranium mills.

Basic skill requirements are in excess of those secured through formal education at the university level or specialized experience in nuclear technology and related subjects.

Ability to analyze uranium material processing operations and determine the adequacy of public health and safety measures, particularly for operations which may lead to release and spread of radioactivity.

Knowledge of Atomic Energy Legislation, including the Atomic Energy Act of 1954, as amended, and implementing regulations (Title 10, Code of Federal Regulations), and the NRC policy pertaining to the administration of these regulations.

Demonstrated ability to perceive and evaluate policy questions involved in the administration of the NRC regulations pertaining to uranium milling operations and the activities related to these operations.

Ability to communicate with middle management officials of industry and government and to deal with them concerning inadequacies of license applications as related to NRC standards.

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CONTACTS

130

Frequent communication with middle management personnel and occasional contact with top management of industrial firms making application for or inquiry concerning materials licenses or requesting information on NRC programs or regulatory policies.

Frequent contact with technical and administrative staff throughout the NRC for the purpose of exchanging technical information, and for coordinating improved procedures for processing licensing matters through other NRC organizational units.

Frequent contacts by telephone and in meetings with technical personnel of industry to discuss NRC standards on radiation safety and to inform them of the inadequacies of their particular application with regard to incompleteness of information concerning these standards or of control procedures to maintain them.

Frequent contacts with technical personnel of national laboratories and NRC contractors to provide coordination of specific reviews of parts of applications for uranium mill licenses.

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RESPONSIBILITY FOR DECISIONS

140

Supervision Received

Section Leader, Uranium Mill Licensing.

General Supervision "B".

Guides are overall NRC and divisional policies, including applicable sections of the Act, the Code of Federal Regulations, and the NRC Manual.

Independent Action

Recommends issuance, renewals and amendments of source material licenses for uranium mills including the grant of exceptions and the imposition of special conditions.

Recommends action to be taken regarding denial of licenses.

Represents the Fuel Processing & Fabrication Branch to other NRC offices and industry relative to considerations within the scope of the incumbent's duties.

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SUPERVISION EXERCISED

None.

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WORKING CONDITIONS

5

Normal.

**EVALUATION OF GS-1 - 15 POSITIONS**

**NRC Appendix 4130-A  
ENG-110**

**EFFORT**

Normal.

**TOTAL SCORE**

**745**

Approved: April 30, 1980

**EVALUATION OF GS-1 - 15 POSITIONS****MECHANICAL ENGINEER, GS-0830-13****BENCHMARK****FUNCTIONAL STATEMENT**

As a mechanical engineer, analyzes and evaluates applications for construction permits and operating licenses for nuclear power plants to assure that mechanical equipment and systems meet required safety standards and regulations. Typically assigned the review of complex mechanical equipment; systems or processes such as pumping, piping and valve systems; control rod drive systems; and/or analysis and safety determinations concerning structural and hydrodynamic loads within containment systems. Recommends acceptance, rejection, or the need for modification of applicants' plans based upon his review and analysis. As directed, provides specialized assistance to other NRC offices on individual mechanical engineering matters.

**REGULAR DUTIES**

Performs reviews of preliminary safety analysis reports, final safety analysis reports, topical reports, failure analyses, and proposed license amendments as related to a range of mechanical equipment and mechanical systems proposed for use in nuclear power plants. Assigned reviews cover mechanical equipment and systems such as pumping, piping, and valve systems; control rod drive systems; and/or analysis and safety determinations concerning the structural and hydrodynamic loads within containment systems.

Utilizes mechanical engineering principles, structural and stress data, conditions of operation information, standards, guides, regulations and precedent practices to determine whether proposed construction and operating plans meet requirements for acceptable safety. In many instances guides, standards and regulations require considerable adaptation and interpretation to assure their applicability to unusual or novel mechanical equipment and system problems; issues or features in applicants' proposed plans.

Determines if the technical information related to mechanical equipment and systems is sufficiently detailed to enable evaluations of safety-related aspects. Identifies and prepares detailed technical questions for transmittal to applicants in areas where information is insufficient or lacking in clarity. Identifies conflicts with NRC regulations, standards and practices, evaluates the technical bases of differences with NRC requirements, and assesses their impact on the safety of the reactor plant and recommends courses of action to resolve any differences.

Meets directly with applicant and A and E middle management and technical personnel to discuss and resolve technical questions and issues, to explain the need for additional or clarifying information, and to defend his determination of the need for additional applicant action.

Prepares staff reports, special studies, analyses, investigative reviews and work projects on subjects appropriate to mechanical engineering and as specifically assigned by the supervisor. Such assignments generally deal with technical questions which do not require considerable coordination or research.

Keeps informed of research and development work in the field of mechanical engineering as applied to nuclear power plants to permit timely determination of appropriate use within his assigned areas.

Occasionally serves as an NRC staff witness to public hearings and prepares testimony describing the technical bases for safety evaluations when required on his review assignments.

**ANALYSIS****BASIC SKILLS**

470

Thorough knowledge of the basic principles, theories and practices in the field of mechanical engineering with thorough and detailed experience in the design of mechanical systems and components used in the construction of nuclear power plants.

Knowledge of mechanical engineering associated with mechanical systems and components in nuclear power plants must be adequate to evaluate and verify complex methods of analyses of these systems and components, including assumptions and inputs used in the analyses. Must be able to separate sound engineering practices from unproven theories or proposals.

Thorough knowledge is required of acceptable NRC criteria, including industry codes and standards, which are applicable to the design and construction of mechanical systems and components used in nuclear power plants. The individual must have a comprehension of the underlying technical bases for these criteria and standards.

The ability to coordinate mechanical engineering aspects of the evaluation of safety analysis reports with other cognizant NRC project personnel is required. Must be able to write a clear, concise and technically sound

Safety Evaluation Report which summarizes the results of the evaluation of the Safety Analysis Report and to explain orally the bases for his conclusions.

Must possess the ability to persuade technical counterparts of industry of the soundness of NRC acceptance criteria, technical standards, rules, and regulations.

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**CONTACTS**

120

Frequent contacts with middle management and technical NRC personnel in Office of Nuclear Reactor Regulation and occasional contact in Office of

Inspection and Enforcement and Office of Nuclear Material Safety and Safeguards, to develop staff positions for specific licensing actions in assigned areas.

Frequent contacts with middle management and technical personnel in private and government utilities, architect engineer firms and major nuclear component manufacturers, to present and support NRC staff positions and requirements in regard to assigned areas of review.

Frequent contact with the technical staffs of other Federal agencies and occasional contacts with ACRS and hearing boards to give and receive information on the review of mechanical systems and components and to defend technical positions on controversial issues which are subject to conflicting interpretations.

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**RESPONSIBILITY FOR DECISIONS**

155

Supervision Received

Section Leader, Mechanical Engineering Branch.

General Supervision "B".

Guidelines and policies are appropriate parts of the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, Part of Title 10 of the Code of Federal Regulations, NRC Management Directives System, Regulatory Guides, Standard Review Plans, and division policies and practices.

Independent Action

Recommends acceptance/rejection of utility-submitted PSAR's/FSAR's in area of assigned mechanical equipment and systems.

Recommends PSAR/FSAR changes to plans for mechanical equipment and systems to utilities required to conform to agency criteria.

Recommends acceptance/rejection of vendor and architect/engineer submitted topical reports.

Recommends new, and changes to Standard Review Plans, Branch Technical Positions, Regulatory Guides and Regulations.

Recommends testimony to be given before Appeals Boards and Licensing Boards, and appears before such boards, as a staff witness, to present sworn testimony with regard to assigned mechanical equipment and systems.

Meets with industry and utility groups, discusses problems, and recommends NRC course of action.

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**SUPERVISION EXERCISED**

None.

EVALUATIONS OF GS-1 - 15 POSITIONS

NRC Appendix 4130-A  
ENG-120

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**WORKING CONDITIONS**

**5**

Normal.

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**EFFORT**

**5**

Normal.

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**TOTAL SCORE**

**755**

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Approved: April 30, 1980

## METALLURGICAL ENGINEER, GS-0806-13

## BENCHMARK

## FUNCTIONAL STATEMENT

As a metallurgical engineer, analyzes and evaluates applications for construction permits and operating licenses for nuclear power plants to assure that metallurgical aspects meet required safety standards and regulations. Typically assigned the metallurgical review of complex systems within the plant such as the reactor pressure vessel, the steam generator shell, and/or the piping system for the coolant system. Recommends acceptance, rejection, or the need for modification of applicant's plans based upon his review and analysis. As directed, provides specialized assistance to other NRC offices on individual metallurgical matters.

## REGULAR DUTIES

Performs reviews of preliminary safety analysis reports, final safety analysis reports, topical reports, and proposed license amendments as related to a range of metallurgical materials proposed for use in nuclear power plants. Assigned reviews cover systems and components such as reactor pressure vessel, steam generator shell, or piping systems for the coolant system. Utilizes metallurgical principles, material composition data, stress data, thermal condition data, standards, guides, regulations and precedent practices to determine whether proposed construction and operating plans meet requirements for acceptable safety. In many instances guides, standards and regulations require considerable adaptation and interpretation to assure their applicability to unusual or novel metallurgical problems, issues or features in applicant's proposed plans.

Determines if the technical information related to metallurgical material plans is sufficiently detailed to enable evaluations of safety-related aspects. Identifies and prepares detailed technical questions for transmittal to applicants in areas where information is insufficient or lacking in clarity. Identifies conflicts with NRC regulations, standards and practices, evaluates the technical bases of differences with NRC.

Meets directly with applicant and A and E middle management and technical personnel to discuss and resolve technical questions and issues, to explain the need for additional or clarifying information and to define his determination of the need for additional applicant action.

Prepares staff reports, special studies, analyses, investigative reviews and work projects on subjects appropriate to metallurgical engineering and as specifically assigned by the supervisor. Such assignments generally deal with technical guidance which do not require considerable coordination or research.

Keeps informed of research and development work in the field of metallurgical engineering as applied to nuclear power plants to permit timely determination of appropriate use within his assigned areas.

Occasionally serves as an NRC staff witness to public hearings and prepares testimony describing the technical bases for safety evaluations when required on his review assignments.

## ANALYSIS

## BASIC SKILLS

470

Thorough knowledge of theory, principles, methods and techniques in the field of metallurgical engineering, with specific, thorough knowledge of the chemical and physical properties of metals, appropriate uses of metals, inservice inspection techniques and requirements, and potential inservice degradation processes such as crack growth, material creep and fracture for the range of metallic materials used in the construction of nuclear power plant components.

Detailed knowledge of fracture mechanics techniques, fracture toughness testing and acceptance criteria, and radiation effects on material properties sufficient to review license or permit applicant's proposed plans.

General knowledge of the overall design and operation of nuclear power plants with specific emphasis on systems which involve metallurgical materials questions and issues such as piping system, pressure vessels and steam generator shell.

Sound knowledge of NRC regulations, guides, standards and practices in order to apply them to metallurgical issues and problems.

Requires a demonstrated ability to grasp technical problems in order to stimulate clear, concise regulatory standards, codes and criteria.

Skill in the preparation and presentation of comprehensive and concise technical reports, both orally and in writing.

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CONTACTS

120

Continuous contacts at any level within the Division ranging from routine matters to discussing and presenting detailed technical bases related to duties described above.

Contacts with the staff and management of other Divisions to discuss review schedules and to insure consistent NRC technical positions.

Frequent contacts with the technical specialists of license applicants and their vendors and consultants, NRC consultants and the specialists and consultants of other government agencies, and occasionally with ACRS and hearing boards to discuss technical issues associated with license applications, to assure understanding and acceptance of NRC requirements and technical positions, and to defend technical positions on controversial issues which are subject to conflicting interpretations.

Contacts with the technical specialists of all participating organizations in the nuclear industry when assigned development and preparation of drafts of codes and standards.

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RESPONSIBILITY FOR DECISIONS

155

Supervision Received

Section Leader, Materials Engineering Branch.

General Supervision "B".

Administrative guides are NRC manual and NRC policy. Operational guides are in the form of memoranda or verbal directives.

Technical guides are industry codes and standards, NRC rules, regulations, regulatory guides, and standard review plans, and engineering handbooks and technical books.

Independent Action

Determines the adequacy of the applicant's technical information related to metallurgical material plans. Determines whether proposed construction and operating plans meet safety standards requirements. Evaluate the technical bases of differences between NRC standards and regulations and the applicant's design plans.

Recommends:

Acceptability of metallurgical engineering aspects of nuclear power plant components as proposed in Safety Analyses Reports or topical reports.

Technical positions and their bases in the metallurgical engineering area, for acceptance, rejection or modification of applicant plans.

Technical projects to be performed by contractors or consultants to assist the technical review staff in performing their technical reviews.

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SUPERVISION EXERCISED

None.

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WORKING CONDITIONS

5

Normal.

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EFFORT

5

Normal.

Approve: April 30, 1980

EVALUATION OF GS-1 - 15 POSITIONS

NRC Appendix 4130-A  
ENG-13<sup>n</sup>

TOTAL SCORE

755

**EVALUATION OF GS-1 - 15 POSITIONS**

**NUCLEAR ENGINEER, GS-0840-13**

**BENCHMARK**

**FUNCTIONAL STATEMENT**

Analyzes and evaluates reactor facilities licensed for operation, applications for license amendments, proposed technical specification changes, authorizations for reactor operation and the safety aspects of their design and operation. Areas of responsibility include analysis of reactor core, reactor coolant systems, and engineered safety features affecting the core and require application of specialized skill in nuclear, thermal and hydraulic performance.

**REGULAR DUTIES**

Evaluates proposed Technical Specifications pertaining to core reload submittals in areas of process parameter charges, nuclear design, thermal design, flow distribution, and the ability of the plant to successfully mitigate the consequences of a variety of postulated transients and accidents.

Evaluates the design of emergency core cooling systems, proposed modifications to the designs of these systems, and the analyses of the systems performance to assure conformance with Appendix K to 10 CFR 50 including single failure criterion, submerged valves, and NPSH requirements.

Reviews and evaluates occurrences and associated safety implications at operating plants and determines whether or not continued operation is permissible in accordance with NRC regulations. Initial judgment, although subject to review by the Section Leader and Branch Chief, must be made under much pressure and short deadlines. Determines whether plant continues to operate while a more thorough evaluation is being made.

Performs technical reviews of engineered safety-systems such as the residual heat removal system, control rod drive mechanisms, safety and relief valves, systems designed to prevent excessive pressure in the reactor coolant system during startup and shutdown, and leakage detection systems. Evaluates proposed modifications to the design or operating limits of these systems.

Prepares Safety Evaluation Reports dealing with each of the above areas to permit or support continued operation of nuclear power plants or to allow changes in the plant's technical specifications or changes to the design of engineered safety systems.

Works as the technical lead specialist on emergency core coolant systems in providing technical guidance used by project managers in informing public utility companies of new and revised requirements.

Interfaces with the Plant Systems Branch regarding containment design, electrical and instrumentation and power engineering aspects of reactor operations.

Conducts technical meetings with fuel and reactor suppliers regarding generic issues that affect a number of operating reactors. Serves as spokesman at meetings and conferences and makes recommendations to the Section Leader on such matters.

**OCCASIONAL DUTIES**

Coordinates Technical Assistance programs with DOE, the National Laboratories and commercial contractors in areas of fuels technology, thermal stress problems related to engineered safety components, and emergency core coolant systems equipment performance.

Serves as a member of specialized task forces organized to make special technical evaluations pertaining to problems that may arise from operating reactors.

Provides special technical evaluations pertaining to problems that may arise from operating reactors and at times serves as a member of a special task force organized for this purpose.

**ANALYSIS**

**BASIC SKILLS**

470

Requires a sound knowledge of the basic principles, theories, and practices in the field of nuclear engineering and thermal hydraulics. Competence must be adequate to enable evaluation and direction of concepts and programs in this area.

The basic skill requirements are in excess of those obtained by formal education at the university level (B.S. Degree), being supplemented by considerable experience in the design and evaluation aspects of nuclear

engineering. They include a demonstrated ability to understand and verify calculations of reactor designers and researchers and to separate basic engineering principles and practices from unproven theories and proposals.

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CONTACTS

120

Continuous contacts with middle level NRC technical staff to obtain and provide technical information and to provide advice and guidance on technical areas of competence within his assignments.

Frequent contacts with the management and the professional technical staff of fuel and reactor manufacturers and with nuclear power plant licensees to obtain information needed to review and evaluate proposed core reloads, changes to technical specifications, and unusual occurrences at operating nuclear power plants. Must defend technical positions on issues which arise with manufacturers and licenses and which are subject to conflicting interpretations.

Frequent to occasional contacts with top technical personnel of NRC, NRC contractors, industrial and other government agencies to discuss technical standards, guides, codes, and evaluations relating to reactor safety and to obtain and provide technical information.

Occasional contacts with the ACRS and ASLBs for the purpose of making oral presentations and responding to questions related to technical areas within his assignments.

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RESPONSIBILITY FOR DECISIONS

155

Supervision Received

Section Leader, Reactor Safety Branch.

General Supervision "B".

Independent Action

Incumbent is responsible for making technical recommendations regarding the formulation of significant portions of Safety Evaluation Reports dealing with design, analysis and operation of nuclear power plants. His judgments, in most cases, are initially subjected only to a general review, but eventually will be subjected to extensive NRC and industry reviews.

Incumbent represents the Office of Nuclear Reactor Regulation in technical meetings relating to criteria and acceptable analytical methods assigned work areas.

Performs independent analytical work and calculations in connection with reactor core, safety systems, and equipment which are used as a basis for technical recommendations.

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SUPERVISION EXERCISED

None.

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WORKING CONDITIONS

5

Normal work conditions while in Washington. Extensive travel involved.

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EFFORT

5

Normally minimum effort.

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TOTAL SCORE

75

**EVALUATION OF GS-1 - 15 POSITIONS**

**CHEMICAL ENGINEER, GS-0893-13**

**BENCHMARK**

**FUNCTIONAL STATEMENT**

Responsible for analysis and evaluation of the design specifications, administrative requirements and operating procedures in license applications and environmental reports for fuel processing facilities. Is specifically concerned with the possession and use of source, special nuclear material and by-product material. Provides input to the formulation of guides, standards and criteria for design and operation of complex chemical and metallurgical plants, and other processes and designs that fall within the scope of fuel processing and fabrication.

**REGULAR DUTIES**

Reviews and evaluates applications and environmental reports for licenses for the possession and use of large quantities of byproduct, source and special nuclear materials in complex chemical and metallurgical plants such as uranium mills, UF<sub>6</sub> production and nuclear fuel fabrication installations. Performs such reviews and evaluations independently or acts as project manager and coordinates others who carry out portions of the reviews.

Establishes that the data provided in applications and environmental reports are in conformity with NRC regulations and that the information is adequate to make the findings required by applicable parts of Title 10, Code of Federal Regulations.

Reviews and evaluates the chemical, physical and mechanical aspects of the proposed activities of an applicant for license to determine whether the applicant has recognized and adequately safeguarded against hazards such as inadvertent criticality, excessive radiation levels and airborne radioactivity and the spread of radioactive contamination and that the proposed operations provide adequate protection for environmental values.

Evaluates the applicant's technical qualifications, including the training and experience of the members of the applicant's staff, to possess and use source, special nuclear and/or byproduct materials in such a manner as to protect health and minimize danger to life and property.

Evaluates the adequacy of the applicant's administrative procedures and emergency plans.

Develops necessary technical conditions, including storage and processing limitations, to be incorporated in licenses. Prepares licenses, or makes recommendations for denials, upon determining that a particular application does or does not meet all licensing requirements of the Atomic Energy Act of 1954, as amended, and regulations of the Commission.

Communicates independently with applicant to obtain additional or supplementing information in the event the application or environmental report does not contain sufficient information for an adequate review.

Reviews, recommends and assists in the development of safety standards, criteria and guides applicable to the design, construction and operation of fuel processing facilities and equipment in order to minimize probability of accidental chemical reactions or conditions of nuclear criticality.

Develops methods for analysis and evaluation of proposed nuclear material applications involving general performance criteria including nuclear criticality safety considerations in handling and storing nuclear materials.

Writes reports or technical publications on the results of the above evaluations and analyses which set forth conclusions and/or recommendations for licensing action.

Makes frequent trips to licensed plants for the purpose of surveying process operations and procedures and to gather data on the processing, handling, storing, and shipping of nuclear materials with special emphasis on the related safety problems.

**ANALYSIS**

**BASIC SKILLS**

465

Knowledge of principles, theory, and practice in field of chemical engineering with emphasis on nuclear engineering aspects sufficient to evaluate the technical and administrative aspects of license applications; knowledge necessary to evaluate plant design, chemical process piping, mechanical design, instruments, and materials handling. Ability to analyze chemical and mechanical processes to determine their technical feasibility and to judge the adequacy of protective measures against hazards and adverse environmental effects.

Academic training and thorough practical experience in the design, operation and modification of chemical process operations involving large amounts of radioactive material. Knowledge of Government and industrial chemical separation, metallurgy, fabrication, and feed material programs.

Detailed knowledge and understanding of the Atomic Energy Act of 1954, as amended, and the rules and regulations of the Nuclear Regulatory Commission; in particular, 10 CFR Parts 20, 30, 40, 50, and 70. Ability to integrate and interpret policies, rules and regulations of the Commission and to prepare technical material for oral and written presentation.

Ability to perceive and evaluate policy questions involving the administration of NRC regulations pertaining to nuclear materials, facilities and related activities and a wide variety of advanced designs of plants and systems. Competence to judge the work of applicant's technical staff in designing and utilizing such plants and systems.

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CONTACTS

130

Frequent contact with top and middle level technical personnel of private organizations which are license applicants or which request authorization or other forms of approval related to the possession and use of by-product, source and special nuclear material. The purpose of these contacts is to interpret, advise on, and discuss NRC safety requirements and policy so as to assure conformance on part of the license applicants.

Frequent contacts with other Federal agencies such as the Department of the Interior, Department of State, ERDA, its operations offices, and occasional contacts with State government agencies concerning the exchange of information on technical and legal aspects of materials licenses.

Continuous contacts with technical staff of the Commission, throughout Headquarters and the field, to discuss industrial practices and assist in establishing codes and standards regarding fuel cycle facilities.

Occasional contacts with representatives of organizations planning to design and construct new plants to provide guidance relative to the Commission's safety requirements.

Occasional contact with applicant's personnel during the administration of operator licensing tests and examinations.

Occasional contact with representatives of foreign governments to discuss and review processing facilities or processes.

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RESPONSIBILITY FOR DECISIONS

160

Supervision Received

Branch Chief.

General Supervision "B".

Governed by NRC policies for the management of the Commission's regulatory program as found in the NRC Management Directives System, Part 10 of the Code of Federal Regulations, Regulatory Guides, and Standard Review Plans.

Independent Action

Writes the safety evaluation report on applications for nuclear materials licenses; evaluates the technical and administrative qualifications of the applicant to determine whether or not the applicant is qualified to receive a source or special nuclear materials license.

Recommends approval or denial of the application.

Determines scope and extent of safety analyses required for complex operations involving the possession and use of byproduct, source and special nuclear material.

Originates recommendations for studies for the development of standards and criteria for evaluation of license applications.

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SUPERVISION EXERCISED

None.

**EVALUATION OF GS-1 - 15 POSITIONS**

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**WORKING CONDITIONS**

**5**

Normal.

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**EFFORT**

**5**

Normal.

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**TOTAL SCORE**

**765**

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CHEMICAL ENGINEER, GS-0893-14

## BENCHMARK

## FUNCTIONAL STATEMENT

Serves as a Chemical Engineer in the Fuel Process Systems Standards Branch, Division of Engineering Standards, Office of Standards Development, with responsibility for developing technical standards, codes, and guides from a chemical engineering aspect on nuclear materials from and facilities for milling and enrichment, fuel production through waste management and disposal, i.e.: uranium mills, plants for uranium hexafluoride production, uranium enrichment, fuel production, reactors fuel reprocessing and recycling, and facilities for fuel storage, waste management, and disposal. Standards, codes, and guides prepared: (1) ensure that nuclear materials are received used, and disposed of in a manner which will maximize public and environmental safety, (2) are reliable and valid basis for decisions by NRC licensing and inspection officials, and (3) are bases for planning, design, construction, and operation.

## REGULAR DUTIES

Undertakes assignments for the drafting of new rules and standards in areas either previously lacking such requirements or where such requirements were couched in broad parameters, for example, the preparation of new rules on enrichment and reprocessing. In accomplishing these assignments, applies the principles of the chemical and physical sciences, of economics, and human relationships to the design, construction, and operation of plants in which nuclear materials undergo a change in state or composition. Such assignments include evaluating novel solutions of engineering problems and their safety implications.

Using a background in chemical engineering and expertise in the nuclear field concerning the physical and chemical properties of the radioactive nuclides and their reactions with non-radioactive elements, the laws and federal codes and regulations, the design, operation and control of and the technical problems of reactors and fuel cycle facilities, prepares national and international standards, codes, and guides on the licensing and inspection of nuclear reactor plants and fuel cycle facilities.

Undertakes complex standard assignments, involving chemical engineering, e.g., preparation of completely new parts of Title 10, Code of Federal Regulations for enrichment facilities, fuel reprocessing plants, and fuel fabrication plants. This includes development with the NRC licensing and inspection offices of positions and policies in rules and guides which satisfy all the technical and legal requirements taking into consideration: (1) analysis of the need for new versus amending existing rules, (2) justification of the choice between these, (3) development of positions on requesting changes in legislation, (4) ascertaining and reconciling the views of various government agencies (e.g., EPA, DOE, CEQ, ERDA), industry and the general public, (5) preparation of environmental impact statements for regulations in accordance with the National Environmental Policy Act.

Develops, sometimes through the management of technical assistance contracts, cost data, value-impact and environmental-impact statements, and data concerning radiation safety effects on operating personnel and the public in order to identify alternative methods of solving problems associated with the safety of chemical engineering systems in reactors and fuel cycle facilities.

Directs, coordinates, and evaluates technical support work performed by national laboratories or industrial contractors to establish the bases for rules and guides. Continuously takes the action necessary to improve the contractor's performance. Initiates and conducts contractor performance review group meetings to assure that the desired objectives of the work are being met. Takes the initiative to redirect the contractor's effort when it is determined that such action is necessary.

Coordinates all the technical and legal input associated with NRC's technical criteria, regulations and guides in assigned functional area, and resolves differences arising from this coordinating process.

Acts as the official NRC representative and balloting member on ANSI standards committees which develop and issue industrial standards related to assigned functional area.

As required by the magnitude and urgency of a standard preparation, serves as leader of a task force or group assigned to prepare the standards.

Maintains a continuing liaison with appropriate organizational components of the NRC in order to keep them informed of plans and programs in assigned functional area.

As requested, briefs NRC Commissioners on the progress and outcome of standards and their impact statements. Occasionally acts as Branch Chief during the absence of the Chief. Provides direction and counsel to branch junior engineers and interns.

While performing basic standards development tasks, may be requested to testify before the Atomic Safety and Licensing Board Panel and special hearing boards on matters of NRC policy and action, participate as a member

of special task forces set up by the Commission for NRC or interagency action, may be assigned to expert groups set up to assist International Atomic Energy Agency, Nuclear Energy Agency and International Commission on Radiological Protection in preparation of standards, develop Commission policy papers and papers for national and international symposia in areas of his expertise, respond to petitions, congressional and public inquiries.

Develops criteria and questions for and assist in giving examinations of plant personnel operator licenses.

#### ANALYSIS

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#### BASIC SKILLS

485

Thorough knowledge is required of the chemical processes associated with nuclear reactors and fuel cycle facilities as represented by advanced study and substantial related experience sufficient to develop, coordinate, and administer NRC's program for the development of technical criteria, standards, rules, and guides for the safe design, construction, and operation of the chemical engineering systems of such plants and facilities.

Must have knowledge, substantial experience and an understanding of the technical problems associated with the construction and operation of such plants and facilities sufficient to assure that all technical aspects are thoroughly considered in NRC rules and guides. Thorough knowledge is required of the nuclear hazards and radiation effects associated with such facilities in order that the public health and safety can be protected.

Chemical engineering knowledge is required including experience with unit operations (e.g., distillation, extraction, absorption) and unit processes (e.g., fuel dissolution, fluorination, denitration), as well as the basic laws of mass and heat transfer and fluid flow, thermodynamics and process control.

Knowledge is required of the NRC's statutory responsibilities for establishing technical standards, criteria, rules, and guides for the safety of these plants and facilities.

The ability to manage a scientific and technical program of national significance is required, including the ability to control and direct contractors' technical efforts within reasonable funding allocations and work schedules.

Skill is required in the techniques of presenting scientific material in oral and written form adequate to develop and prepare full, clear, and concise technical reports and analyses. Ability is required to secure cooperation, lead others, perform liaison activities, and to secure satisfactory solutions to problems.

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#### CONTACTS

155

Frequent contacts are with branch chiefs and directors within the Office of Standards Development and with management and senior professional personnel in other NRC organizational units.

Frequent contacts are with senior-level professional and management personnel of DOE operations offices, national laboratories, national standards committees, universities, and industry. These contacts are for the purpose of planning, developing, and evaluating the codes and commentaries incident to the structuring of standards, codes and guides, providing authoritative technical assistance, coordinating and directing clearing, legal and editorial activities related to obtaining final approval and publication of regulatory guides, standards, and criteria.

Occasional contacts are with the Executive Director for Operations, Commissioners, or their staffs at special briefings to present information related to assigned responsibilities.

Contacts with applicants at hearings, and with intervenors, and the public, seeking authoritative information on the proposed new rules. Must work effectively with government and industrial chemical engineers, physicists, chemists, and engineers preparing those standards. Must exercise considerable originality, initiative, and perseverance in pursuing to completion the development, coordination, clearance, and promulgation of standards and guides, with commentors both within and outside NRC.

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#### RESPONSIBILITY FOR DECISIONS

170

##### Supervision Received

Chief, Fuel Process Systems Standards Branch.

General Supervision "A".

Approved: April 30, 1980

**EVALUATION OF GS-1 - 15 POSITIONS**

Guidelines are appropriate sections of the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, the National Environmental Policy Act, Title 10 of the Code of Federal Regulations, the NRC Management Directives System, scientific and technical publications, precedents and judgments gained from experience.

Works essentially independently with only general guidance and with a minimum of instruction. Takes initiative when he sees the need to undertake the preparation of new regulations and regulatory guides, develops the needed programs, schedules and resources for preparation of standards, and prepares the contracts for obtaining the needed input from outside the NRC. If asked, he briefs the Commissioners on the progress and outcome of the standards projects. He is also the responsible NRC balloting member on decisions to issue standards prepared by the American National Standards Institute.

Independent Action

Makes decisions required to resolve technical differences between NRC organizations affected by proposed regulations of guides.

Recommends:

Scope of work and tasks to be accomplished for technical support contract work needed to establish the bases for rules and guides in assigned functional area.

New NRC rules and guides in assigned functional area with particular reference to positions and policy issues, alternatives, and impact.

Endorses:

Proposed ANSI standards associated with assigned functional area.

Decisions Made Without Review

The day-to-day technical decisions required for the effective management of technical support work performed by contractors.

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**SUPERVISION EXERCISED**

None.

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**WORKING CONDITIONS**

5

Normal office conditions with occasional visits to industrial facilities.

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**EFFORT**

5

Normal.

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**TOTAL SCORE**

820

REACTOR FUELS ENGINEER, GS-0840-14

## BENCHMARK

## FUNCTIONAL STATEMENT

Performs evaluations of nuclear fuel performance in operating reactors through the review and development of analytical and empirical models used to predict such performance. Recommends operating limits related to fuel performance for nuclear reactors, based on these evaluations and the use of such analytical and empirical models. Provides technically authoritative advice and assistance on fuel rod performance and behavior, when requested, within NRR and occasionally to other offices of NRC.

## REGULAR DUTIES

Develops, coordinates and reviews analytical and empirical models of fuel rod failure mechanisms, cladding creep-down and collapse, fuel rod behavior during normal reactor operation, anticipated operating transients and loss-of-coolant accidents. Such models consider:

- a. The cladding mechanical properties.
- b. Fatigue stresses and failure modes for fuel rods, spacer grids, springs, guide thimbles, and flow channel boxes. These stresses and failure modes may be caused by flow-induced vibration of power cycling.
- c. Cladding creep.
- d. Fuel densification.
- e. Pellet clad interactions and potential failure modes.
- f. Fission gas release from the pellets and resulting fuel rod internal pressure.
- g. The potential for adverse chemical interactions either among the fuel assembly components or between a fuel component and the reactor environment.

Reviews and evaluates the fuel design of proposed reactor core reloads. These reviews utilize the models described in Item 1 above and additionally include:

- a. An evaluation of the design for the physically feasible combinations of chemical, thermal, mechanical, and hydraulic interaction.
- b. A review of the design to assure that the appropriate physical and thermal properties for the materials used are being employed.
- c. A review of the potential for subassembly flow blockage arising from either thermal or internal causes.
- d. An evaluation of the effects of shock loadings on both the fuel assembly geometry and fuel rod integrity.
- e. An evaluation of the licensee's design analysis to assure that all criteria and the appropriate margins have been considered.

Authors reports on nuclear fuel performance and prepares those portions of staff Safety Evaluation Reports (SER) concerned with fuel performance in connection with core reload applications. The SER's state the NRC staff position regarding the operating limits related to fuel performance for large commercial nuclear power plants.

Serves as a NRC representative and technical coordinator for contract work funded at national laboratories by the Division of Operating Reactors in areas related to the development of computer codes utilized to predict fuel performance. Reviews and approves contractor progress reports and provides guidance to contractors as to reorientation of contract efforts.

Reviews and evaluates abnormal events in operating reactors that result in or could potentially result in abnormal fuel performance such as excessive fuel failures. Serves as technical task leader to determine the cause of such abnormal fuel performance. Makes recommendations regarding:

- a. Operating limitations to be imposed on currently operating reactors to eliminate or reduce such abnormal occurrences.
- b. Revisions to the fuel design and design criteria reviews performed during construction permit and application evaluations to account for actual fuel operating experience.

Represents the staff in meetings with reactor vendors, utilities, and the ACRS to relate and explain the basis for staff technical positions regarding fuel performance and to discuss the staff's review and evaluation methods.

Represents the staff in meetings with contractors or members of the Office of Nuclear Regulatory Research in connection with Commission-sponsored research related to fuel performance to provide guidance in the performance of such research programs.

Assists the Office of Standards Development in the preparation and development of reactor standards and regulatory guides related to fuel performance.

#### OCCASIONAL DUTIES

Makes presentations to ACRS on specific fuel problems.

Plans and conducts symposia on:

- a. Fuel problems experienced in operating reactors.
- b. Analytical and empirical fuel behavior models.

Serves as an expert witness at public hearings involving licensing actions related to fuel performance in operating reactors.

#### ANALYSIS

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#### BASIC SKILLS

490

Thorough knowledge of the basic principles, theories and practices of nuclear engineering, mechanical engineering, metallurgy and reliability analysis methods. Specialized knowledge of the application of these basic principles to the design of nuclear fuel rods and fuel assemblies is required. Specifically, knowledge is required in the areas of metal-water reactions at elevated temperatures, reliability analyses of nuclear fuel designs, performance of fuel during reactivity excursions, and cladding performance during a variety of transient and accident conditions. Knowledge in these areas should be sufficient to review independently and evaluate information related to fuel performance in operating reactors and to make recommendations regarding licensing actions and performance model development.

Knowledge of Nuclear Regulatory Commission regulations, regulatory guides, branch technical positions, and standard review plans, especially as they apply to nuclear fuel design, performance, testing, and post operation surveillance and evaluation. Knowledge in this area should be adequate to make recommendations regarding operating limits related to fuel performance in connection with licensing actions taken on operating reactors.

Detailed knowledge is required to reactor fuel performance and experience in operating reactors adequate to utilize such information in the evaluation of reactor core reload applications and in the development of analytical and empirical models used to predict fuel performance.

Knowledge is required of the results of reactor fuel research and development (R&D) programs that have been completed as well as the status of reactor fuels R&D programs that are currently underway, including fuel performance model development.

Specifically, these skills include the ability to understand and predict nuclear fuel behavior utilizing existing models and computer codes and occasionally to participate in the development of new methods for calculating the degree of metal-water reaction, clad swelling and growth transient fuel pin behavior, and cladding mechanical behavior.

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#### CONTACTS

145

Continuous contacts with NRR middle-level and top-level management to provide recommendations on technical positions related to fuel performance in operating reactors with regard to generic technical activities, specific licensing actions and/or research efforts.

Frequent contacts with working level, middle-level and top-level management of utilities and reactor vendors to provide the results of and basis for the staff's review related to fuel performance in operating reactors and to articulate staff positions on specific proposals made by the utilities and reactor vendors and to convince them of the necessity for changes in technical approaches and methods.

Frequent contact with contractors performing contract work funded by the Division of Operating Reactors related to the development of computer codes utilized to predict fuel performance for the purpose of evaluating and redirecting such work, providing technical guidance as necessary.

**EVALUATION OF GS-1 - 15 POSITIONS**

Occasional contact with the Office of the Executive Legal Director to receive or offer guidance in the preparation of testimony for presentation at hearings related to specific licensing actions on operating reactors. Testifies as an expert witness in licensing hearings under cross examination in adversary proceedings.

Occasional contact with the ACRS for the purpose of making oral presentations and responding to questions related to the staff's review of fuel performance in operating reactors.

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**RESPONSIBILITY FOR DECISIONS**

175

Supervision Received

Chief, Operating Reactors Branch.

General Supervision "A".

Administrative guides are 10 CFR and the NRC Management Directives System. Operational guides are in the form of standard review plans, memoranda or verbal directives.

Independent Action

Formulates and recommends generic positions regarding reactor fuels.

Prepares (subject to the concurrence of supervisor) significant portions of Safety Evaluation Reports in connection with the core reload.

Represents the staff in technical meetings with licensees, NRC Management and the Office of the Executive Legal Director related to the licensing and technical aspects of the staff's fuel performance evaluations of operating reactors.

Makes oral presentations at ACRS meetings, and testifies at hearings held before Atomic Safety and Licensing Boards as an expert witness on the technical aspects of reactor fuel behavior in operating reactors.

Performs independent analytical work and calculations in connection with the development and review of analytical and empirical models related to fuel performance.

Resolves day-to-day technical and administrative problems concerning all aspects of the projects to which assigned as an individual contributor or task leader.

Plans and schedules own work and the work of task groups with the task leader.

Anticipates problems and takes preventive actions.

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**SUPERVISION EXERCISED**

None.

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**WORKING CONDITIONS**

5

Normal work conditions while in Headquarters. Extensive travel involved.

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**EFFORT**

5

Normal minimum effort. Some climbing involved when at reactor sites.

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**TOTAL SCORE**

820

## TRANSPORTATION PROJECT MANAGER, GS-0801-14

## BENCHMARK

## FUNCTIONAL STATEMENT

Serves as a project manager and specialist in the transportation and engineering field, reviewing and evaluating the safety considerations associated with the design, fabrication and operation of new and improved transport containers for radioactive materials. Functions as Senior Project Manager in the Branch, responsible for coordinating the activities of other Branch members on largest or most complex projects in the Branch. Performs Branch coordination and administrative duties as assigned by the Branch Chief.

## REGULAR DUTIES

Serves as Project Manager for group evaluation of container license applications for the largest, most complex transportation packages which may involve unprecedented areas of design, construction or transportation operation conditions. Project manager duties include the following steps:

- a. Reviews incoming licensing applications to assure that they are complete and acceptable for further review.
- b. Confers with Branch Chief to determine who will work on the various parts of the project (includes structural, thermal, criticality and shielding, and quality assurance reviews).
- c. Assigns portions of project for review, with appropriate instructions, to various staff members. Works out deadlines with individual reviewers. May carry out review of individual portions himself.
- d. Prepares information for project record and schedule books.
- e. Reviews work products of individual reviewers to assure that parts are complete and fit together.
- f. Prepares letters to licensing applicants seeking additional information, clarification, etc. Obtains concurrence of individual reviewers on letters.
- g. Prepares safety evaluation reports and certificate of compliance.

Proposes and develops drafts of standards, guides, and codes as related to nuclear physics and engineering for the design, construction and operation of containers to handle the transportation of radioactive materials with primary considerations for the health and safety of the public.

Recommends, through the Branch Chief, that the NRC undertake special development or research work at the national laboratories for the purpose of enhancing the safety of new container concepts advocated by private interests. Identifies areas of research needed and acts as a monitor and advice when such work is carried out in the transportation area.

Provides technical information and guidance on safeguard problems to organizations planning to design and construct containers.

Confers periodically with key representatives of organizations proposing new containers for radioactive materials during the development of engineering design details which have a direct bearing on the safety of the contemplated project.

## OCCASIONAL DUTIES

Renders technical assistance to other groups and branches in NMSS with respect to establishing various licensing regulations and standards for protection against radiation hazards and technical conditions to be included in licenses for transportation.

Attends and participates in technical conferences and seminars sponsored by the Commission and/or professional societies and advises of those developments in the nuclear engineering field which have a bearing on the overall NRC program.

## ANALYSIS

## BASIC SKILLS

Knowledge of the principles, theories, and practices in the field of nuclear physics and engineering with specific knowledge of the electrical, mechanical, chemical, and metallurgical phases of engineering. Competence must be of a degree to adequately evaluate the various concepts proposed by organizations specializing in the nuclear transportation field.

Knowledge of transportation operations associated with government and commercial installations.

The basic skill requirements are considerably in excess of those normally secured by formal education at the university level (B.S. Degree) and are comparable to those achieved from graduate level training coupled with specialized experience in nuclear technology and associated subjects obtained through practical engineering application.

Thorough knowledge and familiarity with NRC regulatory requirements in nuclear safety in the transportation field. A general knowledge and understanding of NRC regulatory practices and procedures is also required.

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**CONTACTS**

150

Incumbent has daily contacts with technical personnel of the Division of Fuel Cycle and Material Safety and with Headquarters divisions for the purpose of providing advice on the safety aspects of transportation, gathering technical data and participating in technical discussions relating to his duties.

Frequent contacts with the top management and engineering personnel of private companies, particularly licensees and license applicants, for the purpose of interpreting NRC's policies and procedures relating to nuclear transportation considerations.

Occasional appearances before the Advisory Committee on Reactor Safeguards, Atomic Safety and Licensing Boards, and Hearing Examiners to present the NRC position on specific safety analyses.

Occasional appearances before local and state bodies and national professional societies for technical presentations.

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**RESPONSIBILITY FOR DECISIONS**

175

Supervision Received

Chief, Transportation Branch.

General Supervision "A".

Governed by overall NRC policies for the management of the Commission's regulatory program.

Independent Action

Originates recommendations and studies for the development of standards, guides, and criteria for evaluation of license applications involving nuclear safety considerations in the transportation field.

Represents the Division of Fuel Cycle and Material Safety in contact with other Divisions, Operations Offices, and with licensees or license applicants.

Determines scope and extent of safety analyses required for complex systems.

Recommends approval or disapproval of applications for licenses for transportation of nuclear material.

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**SUPERVISION EXERCISED**

None.

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**WORKING CONDITIONS**

5

Normal office conditions. Travel requirements above those normally expected.

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**EFFORT**

5

Normal administrative effort. Makes frequent trips.

Approved: April 30, 1980

EVALUATION OF GS-1 - 15 POSITIONS

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TOTAL SCORE

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820

EVALUATION OF GS-1 - 15 POSITIONS

REACTOR PROJECT INSPECTOR (CONSTRUCTION), GS-0801-14

BENCHMARK

FUNCTIONAL STATEMENT

As a member of the inspection staff in a Regional Office, serves as principal reactor inspector on two or more construction projects. Plans, leads, coordinates and personally conducts inspections of assigned preconstruction and construction projects of nuclear reactor plants to assure compliance with design specifications, the conditions of the construction permit, provisions of the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 and the rules and regulations of the Commission.

REGULAR DUTIES

Maintains control and status of the inspection programs carried out at assigned reactor plants prior to construction or during construction, modification or repair. In carrying out this responsibility, the incumbent assures that inspection modules are completed in accordance with schedules specified in the Inspection Manual or other official documents; reviews and understands inspection findings for all phases of assigned construction projects; reads licensee reports of construction deficiencies and problems and performs an in-depth evaluation or assures that such an evaluation is made by an appropriate specialist or group of specialists; and continually evaluates overall licensee performance and recommends regional action where overall performance is not acceptable.

Plans the schedules and scope of inspections, utilizing input from specialist inspectors as necessary, to be performed at assigned reactor plants prior to construction, during construction, modification or repair. Modifies the planned scope of inspection during the progress of field work as required to meet existing conditions.

Performs as team leader when inspections of his assigned projects involve a team of inspectors from his branch or other branches. Coordinates the inspection schedule; recommends the number and specialty makeup of the team to the Chief, Project Section; acts as spokesman for the inspection team to the licensee and others; coordinates and leads the entrance and exit interviews with licensee management; and assures that all parts of the inspection report prepared by individual team members are complete and are internally consistent with other parts.

Personally conducts inspections in his own areas of technical competence. These areas involve the broader management areas such as the quality assurance programs of the licensee, including organization, construction staffing and licensee training of personnel. Keeps informed of inspection activities carried out by specialist inspectors when periodic inspections focus on or are limited to particular phases of the project.

Initiates enforcement action in the form of a letter for signature by higher level Regional management to the licensee which notifies him of the findings of the inspection and gives him a stated period of time within which to respond; concurs in such letters when prepared by other branches to assure that the enforcement actions at each plant are approached from the overall viewpoint as to licensee accomplishments and deficiencies rather than on a branch-by-branch basis. Recommends that a case be transmitted to Headquarters for higher level sanctions when, in his judgment, Regional Office efforts have not induced the licensee to comply properly with NRC requirements or because of the severity of noncompliance.

Keeps abreast of current reactor technology, construction practices, applicable codes and standards, and makes recommendations to improve the application of inspection techniques and standards.

- a. Maintains relationships with the Inspection and Enforcement Headquarters staff to obtain technical guidance and to resolve technical problems pertaining to the regional reactor inspection functions.
- b. Develops proposals for the improvement of facility inspection techniques and standards.
- c. Attends meetings and communicates with project and/or technical staff of the various NRC regional offices, the Advisory Committee on Reactor Safeguards, and other components of the NRC. Communicates with other engineers and specialists in Government and industry to maintain technical proficiency and understanding of the latest developments in reactor technology, applicable codes and standards, procedures, construction techniques, and radiological and nuclear safety.

Advises and assists Regional Office management in the execution of the reactor inspection function and other compliance activities.

- a. Maintains liaison with Federal agencies, such as the EPA and FBI, to inform, cooperate and assist in construction-related activities, including accidents and incidents, which may be of interest to such agencies.
- d. Maintains contact with State and local government officials to promote good relations, and to share NRC experience and inspection know-how. This includes arranging for such officials or their representatives to observe NRC inspection work and discuss the results and to discuss inspection training techniques, standards, and programs.

Approved: April 30, 1980

- c. Assists with the preparation of press releases and in the determination, within policy guides, of information on incidents and investigations that can be given to the public.
- d. Performs other assignments such as licensee management performance appraisals, long-range inspection program planning, quality assurance program reviews, and provides advice and assistance to other inspectors regarding inspection requirements.

**ANALYSIS**

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**BASIC SKILLS**

475

Broad knowledge of a range of engineering disciplines such as civil, mechanical, and electrical equivalent to that gained through a B.S. degree and several years of experience, that are required to understand basic reactor technology, construction practices, codes, standards, and procedures, with particular emphasis on safety in the design and construction of power reactors.

Thorough knowledge of the theories, principles, practices and applications of nuclear engineering and demonstrated experience in reactor design and construction in order to analyze and understand hazards evaluations of specific types of reactors, and to observe, review, appraise and report effectively on the progress of construction, tests of equipment, systems, and procedures before and after routine nuclear operation.

Thorough knowledge of all NRC rules, regulations, and procedures for administration and enforcement of licenses issued by the NRC under the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974. Must have the ability to communicate effectively with the management and technical personnel of facility licensee organizations.

Must have the ability to evaluate the availability and usefulness of new or improved procedures, instruments, and equipment related to reactor inspection work. Must be able to maintain technical proficiency and understand the latest technical developments, for the improvement of reactor inspection techniques and standards.

Skill in clear presentation (oral and written) of informational and technical material.

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**CONTACTS**

140

Continuous personal contacts with Regional Office management on matters related to the execution of the reactor inspection functions and to coordinate planning and conduct of inspections at assigned plants.

Frequent personal contacts with licensee's construction, quality assurance, and key management personnel to inspect, appraise, and evaluate a licensee's performance in accordance with a construction permit, the effectiveness of individual licensee's quality assurance and management controls and procedures, and the degree of hazard to employees or the public caused by licensee's activities.

Occasional contacts with upper-level NRC management, Headquarters, to obtain technical guidance and to consult on technical problems pertaining to the Regional Office reactor inspection program.

Occasional contacts with professional staff of the Office of Inspection and Enforcement, Headquarters, and other headquarters offices and divisions to maintain technical proficiency and understanding of latest developments in reactor technology, construction practices, inspection techniques, radiological and nuclear safety or to furnish information to others concerning licensed facilities.

Occasional contacts with the technical staff members of the regulatory offices concerning inspection findings and overall evaluation of reactor safety to resolve differences in findings and effect compliance with NRC rules, regulations, and provisions of the license or construction permit.

Occasional contacts and liaison with other Federal agencies (such as EPA and FBI) and local representatives to inform, cooperate, and assist in control of radiation activities, such as incidents or accidents which may be of interest to such agencies or to the public.

Occasional contacts with officials of State and local governments to inform, cooperate or assist in the control of radiation activities which may be of interest to these agencies.

**EVALUATION OF GS-1 - 15 POSITIONS**

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**RESPONSIBILITY FOR DECISIONS**

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190

Supervision Received

Chief, Project Section.

General Supervision "A".

Guides are appropriate parts of 10 CFR, the NRC Management Directives System, I&E inspection plans and modules, as well as established I&E techniques and standards for facility inspection.

Independent Action

Plans, schedules and scopes inspection of licensee activities.

Makes on-the-spot technical judgments and decisions concerning safety practices and license compliance while inspecting reactors and nuclear facilities.

Acts as NRC spokesman to all levels of licensee management for assigned plants on inspection findings and resolution of problems.

Endorses reports of inspections conducted by other technical personnel for which overall responsibility for construction plants has been assigned to this position.

Advises construction specialists or other assigned personnel on inspections of unusual facility activities that could affect the planned inspection.

Recommends:

Recommends to his supervisor and to higher levels cessation of activities and/or reduction of construction and Quality Assurance Program activities. Initiates enforcement actions for signature by higher level I&E management.

Assesses the adequacy of, and need for, new or revised NRC rules and regulations relating to facility licensee operations and to the health and safety of the public, and develops recommendations for improvements.

Assesses the adequacy of and develops recommendations for the improvement of reactor inspection methods, techniques, and standards.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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15

Normal office conditions while in the Regional Office. Approximately 30 percent of working time is required for field inspection and investigation work, which involves exposure to construction hazards, such as open trenches and excavations, construction equipment, and falling objects, as well as to inclement weather. May be required to wear protective clothing and safety devices if exposed to toxic or radioactive materials.

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**EFFORT**

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15

The field work requires extensive walking, climbing, standing, and exposure to inclement weather.

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**TOTAL SCORE**

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835

EVALUATION OF GS-1 - 15 POSITIONS

REACTOR PROJECT INSPECTOR (OPERATIONS), GS-0840-14

BENCHMARK

FUNCTIONAL STATEMENT

As a member of the inspection staff in a Regional Office, serves as principal inspector on two or more operating reactor plants. Plans, leads, coordinates and personally conducts inspections during preoperational testing, startup and operational phases of nuclear reactor plants to assure compliance with operating licenses, provisions of the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 and the rules and regulations of the Commission.

REGULAR DUTIES

Maintains control and status of the inspection programs carried out at assigned reactor plants during preoperational testing, startup and all phases of operation. In carrying out this responsibility, the incumbent assures that inspection modules and procedures are completed in accordance with schedules specified in the Inspection Manual or other official documents; reviews, understands and endorses inspection findings of various specialists who conduct specialized portions or phases of inspections at his assigned plants; reads licensee reports of operational deficiencies and problems and performs an in-depth evaluation or assures that such an evaluation is made by an appropriate specialist or group of specialists; and continually evaluates overall licensee performance and recommends regional action where overall performance is not acceptable.

Plans the schedules and scope of inspections at assigned plants, utilizing inputs from specialist inspectors as necessary. Maintains awareness of and concurs with schedules at assigned plants when planned by specialists. Modifies the planned scope of inspections during the progress of field work as required to meet existing conditions.

Performs as team leader when inspections of his assigned projects involve a team of inspectors from his branch or other branches. Coordinates the inspection schedule; recommends the number and specialty makeup of the team to the Chief, Project Section; acts as spokesman for the inspection team to the licensee and others; coordinates and leads the entrance and exit interviews with licensee management; and assures that all parts of the inspection report prepared by individual team members are complete and are internally consistent with other parts.

Personally conducts inspections in his own areas of technical competence. These areas include the broader management areas such as the quality assurance programs of the licensee, including organization, staff and licensee training of personnel. Keeps informed of inspection activities carried out by specialist inspectors when periodic inspections focus on or are limited to particular phases of the project.

Keeps abreast of current reactor technology, safety practices; applicable codes and standards, and makes recommendations to improve the application of inspection techniques and standards.

- a. Maintains relationships with the Inspection and Enforcement Headquarters staff to obtain technical guidance and to resolve technical problems pertaining to the regional reactor inspection functions.
- b. Develops proposals for the improvement of facility inspection techniques and standards.
- c. Attends meetings and communicates with project and/or technical staff of the various NRC regional offices, the Advisory Committee on Reactor Safeguards, and other components of the NRC. Communicates with other engineers and specialists in Government and industry to maintain technical proficiency and understanding of the latest developments in reactor technology, applicable codes and standards, procedures, and radiological and nuclear safety.

Initiates enforcement action for signature by higher level Regional management; concurs in such actions when prepared by other branches for his assigned facilities to assure that the enforcement actions at each plant are approached from the overall viewpoint as to licensee accomplishments and deficiencies rather than on a branch-by-branch basis. Recommends that a case be transmitted to Headquarters for higher level sanctions when, in his judgment, Regional Office efforts have not induced the licensee to comply properly with NRC requirements or because of the severity of noncompliance.

Advises and assists Regional Office management in the execution of the reactor inspection function and other compliance activities.

- a. Maintains liaison with Federal agencies, such as the EPA and FBI, to inform, cooperate and assist in related activities, including accidents and incidents, which may be of interest to such agencies.

- b. Maintains contact with State and local government officials to promote good relations, and to share NRC experience and inspection know-how. This includes arranging for such officials or their representatives to observe NRC inspection work and discuss the results and to discuss inspection training techniques, standards, and programs.
- c. Assists with the preparation of press releases and in the determination, within policy guides, of information on incidents and investigations that can be given to the public.
- d. Performs other assignments such as licensee management performance appraisals, long-range inspection program planning, quality assurance program reviews, and provides advice and assistance to other inspectors regarding inspection requirements.

#### ANALYSIS

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#### BASIC SKILLS

475

Broad knowledge of a range of engineering disciplines such as nuclear, civil, mechanical, and electrical equivalent to that gained through a B.S. degree and several years of experience, that are required to understand basic reactor technology, operating safety practices, codes, standards and procedures, with particular emphasis on safety in the operation of power reactors.

Thorough knowledge of the theories, principles, practices and applications of nuclear engineering and demonstrated experience in reactor design and construction in order to analyze and understand hazards, make evaluations of specific types of reactors, and to observe, review, appraise and report effectively on the progress of pretest, startup and operations of reactor plants.

Thorough knowledge of all NRC rules, regulations, and procedures for administration and enforcement of licenses issued by the NRC under the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974. Must have the ability to communicate effectively with the management and technical personnel of facility licensee organizations.

Must have the ability to evaluate the availability and usefulness of new or improved procedures, instruments, and equipment related to reactor inspection work. Must be able to maintain technical proficiency and understand the latest technical developments, for the improvement of reactor inspection techniques and standards.

Skill in clear presentation (oral and written) of informational and technical material.

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#### CONTACTS

140

Continuous personal contacts with Regional Office management on matters related to the execution of the reactor inspection functions and to coordinate planning and conduct of inspections at assigned plants.

Frequent personal contacts with licensee's quality assurance, operating and key management personnel to inspect, appraise, and evaluate a licensee's performance in accordance with an operating license, the effectiveness of individual licensee's quality assurance and management controls and procedures, and the degree of hazard to employees or the public caused by licensee's activities.

Occasional contacts with upper-level NRC management, Headquarters, to obtain technical guidance and to consult on technical problems pertaining to the Regional Office reactor inspection program.

Occasional contacts with professional staff of the Office of Inspection and Enforcement, Headquarters, and other headquarters offices and divisions to maintain technical proficiency and understanding of latest developments in reactor technology, inspection techniques, radiological and nuclear safety, or to furnish information to others concerning licensed facilities.

Occasional contacts with the technical staff members of the regulatory offices concerning inspection findings and overall evaluation of reactor safety to resolve differences in findings and effect compliance with NRC rules, regulations, and provisions of the license.

Occasional contacts and liaison with other Federal agencies (such as EPA and FBI) and local representatives to inform, cooperate, and assist in control of radiation activities, such as incidents or accidents which may be of interest to such agencies or to the public.

Occasional contacts with officials of State and local governments to inform, cooperate or assist in the control of radiation activities which may be of interest to these agencies.

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**RESPONSIBILITY FOR DECISIONS**

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19

Supervision Received

Chief, Project Section.

General Supervision "A".

Guides are appropriate parts of 10 CFR, the NRC Management Directives System, I&E inspection plans and modules, as well as established I&E techniques and standards for facility inspection.

Independent Action

Plans, schedules and scopes inspection of licensee activities.

Makes on-the-spot technical judgments and decisions concerning safety practices and license compliance while inspecting reactors and nuclear facilities.

Acts as NRC spokesman to all levels of licensee management for assigned plants on inspection findings and resolution of problems.

Endorses reports of inspections conducted by other technical personnel for reactor plants assigned to this position.

Advises inspection specialists or other assigned personnel on inspections of unusual facility activities that could affect the planned inspection.

Recommends:

Recommends to his supervisor and to higher levels cessation of activities and/or reduction of activities.

Initiates enforcement actions for signature by higher level I&E management.

Assesses the adequacy of, and need for, new or revised NRC rules and regulations relating to facility licensee operations and to the health and safety of the public, and develops recommendations for improvements.

Assesses the adequacy of and develops recommendations for the improvement of reactor inspection methods, techniques, and standards.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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15

Normal office conditions while in the Regional Office. Approximately 30 percent of working time is required for field inspection and investigation work, which involves exposure to plant conditions. May be required to wear protective clothing and safety devices if exposed to toxic or radioactive materials.

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**EFFORT**

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15

The field work may require extensive walking, climbing, standing, and exposure to inclement weather.

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**TOTAL SCORE**

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835

**EVALUATION OF GS-1 - 15 POSITIONS****METALLURGICAL ENGINEER, GS-0806-14****BENCHMARK****FUNCTIONAL STATEMENT**

As the professional engineer in the Metallurgy and Materials Research Branch for engineering studies and research in the area of fractures, fracture mechanics, and structural mechanics undertakes assignments concerning the "envelope" of the nuclear reactor system, i.e., steam generator shell, the piping system for coolant, and the pressure vessel itself. Research is undertaken to generate data for the prediction or causes of flaws, cracks in the piping system and its structures associated with the "envelope" under startup, operating, accident, and cool down conditions and the degree to which a discovered flaw may be tolerated if at all. In that connection participates in the determination of research projects to be taken, deferred, or accelerated; in the awarding of research contracts to government, university, or private laboratories; and the monitoring of such contract awards. Research work is undertaken by the use of research laboratories under contract. Annually about 6-10 contracts are negotiated valued in multiple millions of dollars.

**REGULAR DUTIES**

Analyzes requests for the NRC licensing staff, reports from field offices and inspectors and plans for the generation of research data on which guidelines may be developed for use of the licensing and inspection staffs regarding incidents which cause fractures, cracks or flaws in the pressure vessel and piping system. Reviews efforts and capabilities of various government laboratories to accomplish designated research efforts and, similarly, reviews proposals for research contracts submitted by universities and private laboratories. Such proposals are reviewed for such matters as: clarity and pertinence of purpose; soundness as a scientific undertaking; capability of staff, equipment, and facilities; and the value and relationship of the research study's objectives of the nuclear safety research program. Typical studies include:

- a. Fracture mechanics and analyses - the qualitative and quantitative analysis with respect to the safety against fracture of full-scale reactor pressure vessels; e.g., ratio of failure pressure to design pressure with flaws present, flaw tolerating capability of vessels, nozzle corner cracks, etc.
- b. Cyclic crack growth studies - fracture mechanics parameters in pressurized and boiling water reactor primary coolant environments; tests to establish any significant differences in crack growth rate between plate, forging and weld metal.
- c. Investigation of irradiated materials; thermal shock on pressure vessel; reheat cracking studies, fracture toughness; low cycle fatigue crack propagation.

Monitors the work of laboratories under research contracts to ensure adherence to work schedules and objectives. Reviews with contractors, scientists, the design and use of devices and techniques for detection and assessment of strains, cracks, flaws, etc., e.g., by use of hydraulic tests, dynamic photoelastic study of crack arrest, and the development of analytical tools and computer programs for calculation of stress, fatigue, cracking, etc.

Reviews periodic and topical reports of contractors to determine progress and to formulate a basis for continuing work or to recommend program changes. Visits contractor's sites to review shifts in work progress, deviations from schedules, unusual findings and observations, etc. Continuously acts to improve contractor's performance and their relationships with NRC by insuring cohesiveness of work to objectives, or by requesting acceleration of certain aspects requested on an earlier basis by an NRC-using agency, or by causing an interjection of a new research study (with a contract modification, if necessary) which may have a higher priority. Such contract modifications or interjections typically are generated by higher authority within the Office of Research, NRC.

Chairs review group meetings of professionals from appropriate, interested NRC staffs, contractor representatives, other interested government agency representatives, and consultants as needed. Review group meetings are held to obtain consensus on the technical competence and direction of ongoing or proposed research activities. Following such meetings prepares recommendations for program changes or new approaches consistent with the Division's functional responsibilities.

Evaluates the results of research reports submitted by contractors on fracture research and structural mechanics, and drafts statements for incorporation of the findings into national standards, computer codes, licensing and inspection guidelines, etc., for quality assurance practices. Meets with other NRC professionals in other divisions and offices of NRC regarding such draft codes and statements to insure ultimate application of the research findings.

Keeps abreast of technical information in his area of program responsibility, research programs underway in universities both within U.S. and abroad, reports from professional laboratories and government offices on matters of related interest. Attends and participates in symposia and conferences often as a panel member in his area of expertise.

Participates with Branch Chief in presentations to higher levels of management on matters within his expertise and often including matters relating to future areas of needed research, problems of funding, equipment and facilities.

**Duties Associated with Coordination:**

Works with technical review, licensing, and standards personnel to assist in the formulation of regulatory criteria and guides applicable to the safety assessment of primary reactor structures.

Arranges and conducts information meetings and conferences with technical personnel of NRC, DOE, national laboratories, contractors, universities, and foreign experts to discuss progress and relevance of the information to Commission objectives.

Maintains liaison with other branches and offices of the division and within NRC to keep them informed of plans, programs, and progress in the structural materials aspects of safety research and development.

**ANALYSIS**

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**BASIC SKILLS**

515

Sufficient educational background i.e., graduate level training and practical experience to perform research engineering functions in the area of fracture mechanics and structural mechanics in materials. The basic skills required to perform this function include an extensive and thorough knowledge of structural mechanics, fracture mechanics, and irradiation effects on structural materials. A broad knowledge of materials and engineering phases of reactor development and analytical techniques related to safety research programs is also necessary to make independent technical judgments of proposed research programs and evaluation of test and analytical results.

Knowledge and experience in management of research and development programs, including such aspects as the definition of program requirements, budgets, and the feasibility of obtaining program goals with reasonable schedules and dollar allocations.

Skill in the techniques of presenting scientific material in oral and written form adequate to develop and prepare full, clear, and concise technical reports and analyses. Ability to secure cooperation, lead others, perform liaison activities, and to secure solutions to problems which are satisfactory to all concerned.

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**CONTACTS**

140

Frequent contacts with Branch Chiefs and Assistant Directors in the Division of Reactor Safety Research and with senior professional personnel in other NRC offices and divisions to explain assigned research projects, to obtain and give technical information, and to obtain cooperation on joint efforts.

Frequent and continued contacts with senior and management personnel of operations offices, national laboratories, national code committees, universities, and industrial contractors. These contacts are for the purpose of planning programs, reporting progress of work, evaluation of related programs, providing technical advice and assistance, persuading contractor personnel to modify their position, and coordinating the application of program results with codes, standards, analyses methods, and regulatory criteria.

Occasional contacts with representatives of foreign government and international agencies to discuss programs of mutual interest on fracture and structural mechanics research on primary system components pertinent to safety assessments.

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**RESPONSIBILITY FOR DECISIONS**

180

Supervision Received

Chief, Metallurgy and Materials Research Branch.

General Supervision "A".

Guidelines are overall NRC and Division policies as defined in the organizational responsibilities of the Division of Reactor Safety Research.

EVALUATION OF GS-1 - 15 POSITIONS

Independent Action

Approves Level "C" schedule and milestones in MPA "Buff Book."

Conducts and reports Review Group Meetings.

Recommends:

- a. Definition of management by objectives Level B schedule and milestone in the MPA "Buff Book."
- b. Changes in scope, funding and priorities in research programs relative to achieving Division goals and objectives following technical evaluation from annual, mid-year and onsite program reviews, as well as from independently conducted management/technical reviews.
- c. Reporting of information to Director and staff on items of significant achievement.
- d. Acceptance, rejection, or termination of research programs, and coordination of existing programs.

Work Accepted without Review:

Resolves day-to-day technical and administrative problems concerning all aspects of research programs under his cognizance.

Plans and schedules Headquarters and site reviews of research programs by Review Group.

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SUPERVISION EXERCISED

None.

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WORKING CONDITIONS

5

Normal office conditions.

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EFFORT

5

Normal.

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TOTAL SCORE

845

EVALUATION OF GS-1 - 15 POSITIONS

PROJECT MANAGER GS-0801-14

BENCHMARK

FUNCTIONAL STATEMENT

Serves as a project manager for the safety review of nuclear power plant construction permit and operating license applications.

REGULAR DUTIES

Manages and coordinates the safety review of applications for construction permits and operating licenses.

Normally assigned two or more projects involving complexities which are typically encountered in the normal range of nuclear power plants. Occasionally assigned a project which involves a unique first-of-a-kind feature or a feature of unusual public concern.

Manages and coordinates the efforts of technical staff personnel in achieving a timely and balanced evaluation of safety matters with respect to siting, design, construction, testing, and operation for nuclear power plant construction permit and operating license applications.

Reviews the content of the applicant's Safety Analysis Reports for assigned projects for the purpose of understanding, from the standpoint of radiological safety, the interplay among components, systems, and structures that comprise the proposed nuclear facility.

Manages and coordinates the review and evaluation efforts of each of the specialized safety review branches in the Divisions of System Safety, Site Safety and Environmental Analysis, and Project Management.

Integrates into the review the impact of information obtained from reports prepared as a result of field inspections conducted by the Office of Inspection and Enforcement.

Chairs technical meetings between technical staff members and applicant representatives related to assigned projects.

Serves as principal spokesman for and coordinates staff efforts related to the review of assigned projects by the Advisory Committee on Reactor Safeguards.

Prepares testimony and coordinates that of other staff members with the Office of Executive Legal Director and serves as the principal staff witness in public hearings on assigned projects before Atomic Safety and Licensing Boards.

Initiates discussions with potential intervenors in hearings related to assigned projects and takes the initiative to arrange meetings with them to discuss the nature of their contentions.

Develops and maintains safety review schedules for assigned projects through coordination with the assigned review branches in the Divisions of Systems Safety, Site Safety and Environmental Analysis and Project Management.

Prepares the staff's Safety Evaluation Report associated with a licensing application, using inputs prepared by the participating review branches in the Divisions of Systems Safety, Site Safety and Environmental Analysis and Project Management.

Resolves inconsistencies and differences of opinion among the staff technical organizations and between the staff and the applicants by the use of discussion and persuasion and knowledge of the technical issues and the applicable NRC requirements.

Provides technical information and guidance of safety-related problems and NRC policies and safety philosophy to organizations planning to design and construct nuclear power plants.

Reviews the recommendations of the participating technical review branches in the Divisions of Systems Safety, Site Safety and Environmental Analysis and Project Management and the Office of Inspection and Enforcement in order to make an overall judgment as to the completeness of a tendered application for a construction permit or operating license and recommends acceptance or rejection of the application for docketing and staff review.

Maintains liaison and controls the flow of information between the applicant's representatives and the staff's technical organizations.

### OCCASIONAL DUTIES

Serves as a member of ad hoc committees and task forces composed of members from other NRC groups for the purpose of performing a specific study or resolving a generic safety issue.

Participates in and makes recommendations with regard to the development of regulations and amendments to regulations.

Participates in the development of standards, guides, and codes related to the siting, design, construction, testing and operation of nuclear power plants by reviewing and commenting on draft documents prepared by the Office of Standards Development.

Performs special licensing evaluations that are not normally a part of the review and evaluation process for a construction permit or an operating license, or are in the nature of a pre-application review; e.g., preparation of "show cause" statements through coordination with the Office of the Executive Legal Director and handling of pre-application submittals of unique facilities.

Prepares responses to principal correspondence, including communications from Congressional sources, government heads, State and local officials, the general public, foreign officials, and various industrial and civic organizations for his assigned projects.

Attends and participates in technical conferences and seminars sponsored by the NRC and/or professional societies and advises the Office of Nuclear Reactor Regulation of those developments in the environmental engineering field which have a bearing on the overall NRC program.

### ANALYSIS

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#### BASIC SKILLS

500

Sound knowledge of the principles, theories, and practices of nuclear engineering, reactor physics, and systems analysis. Must be capable of reviewing and understanding the efforts of others in highly specialized technical areas, developing comments and questions in regard to design criteria and design features; leading technical discussions, formulating overall technical judgments, and writing engineering reports. Must have a general understanding of all of the important systems, site safety and operational aspects of nuclear power plant design. These disciplines are diverse and include core physics, reactor thermal-hydraulics, materials engineering, structural engineering, containment systems, reactor systems, instrumentation and electrical systems, mechanical engineering, and such site-related disciplines as meteorology, geology, seismology, hydrology, soils engineering, and demography.

Administrative and management skills are required adequate to coordinate the efforts of numerous staff personnel working in many technical disciplines for assigned projects.

Must understand and have a working knowledge of the applicable laws, regulations, NRC policies, DPM policies and procedures, guidance and safety philosophy regarding nuclear power plant siting, design, construction, testing, and operation.

Experience is required in the field of nuclear engineering, including reactor physics, reactor design, systems analysis, and operation of reactors to supplement basic physics, and engineering training.

General knowledge is required of research and development work in the field of nuclear power reactor development conducted by other government agencies and industrial organizations.

Ability to interact with technical personnel and present the staff positions, through the knowledge of plant systems, regulatory procedures and safety concerns. Technical debates with applicant personnel in safety issues and regulatory requirements frequently are necessary.

Skill at communicating complex technical information to such diverse groups as staff engineers and management, utility engineers and management, and members of the public.

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#### CONTACTS

155

Frequent contacts with technical and legal personnel at the working and middle-management levels of the NRC staff, primarily in the Divisions of Systems Safety, Site Safety and Environmental Analysis, and Operating Reactors, the Offices of Inspection and Enforcement, the Executive Legal Director, and Standards Development, as well as the Advisory Committee on Reactor Safeguards, and other government agencies for the purpose of managing and coordinating the staff review efforts related to assigned projects.

EVALUATION OF GS-1 - 15 POSITIONS

Frequent contacts with working level and top level technical and managerial personnel of utility organizations, nuclear steam supply system manufacturers, and architect-engineering firms. These contacts generally are for the purpose of discussing and resolving technical safety-related issues concerning the siting, design, construction, testing, and operation of nuclear power plants but may include discussions of NRC policies, safety philosophy, research programs, specific reactor development projects, and radiation control.

Occasional contacts with intervenors and potential intervenors to arrange meetings with them to discuss the nature of their contentions. The purpose is to provide opportunities for intervenors and potential intervenors to meet with staff personnel on an informal basis to permit their concerns to be communicated to the staff for consideration during the review and evaluation process and to also permit the staff to communicate its activities to the intervenors and potential intervenors.

Occasional contact with ASLB as a witness at formal adjudicatory hearings regarding nuclear plant licensing.

RESPONSIBILITY FOR DECISIONS

210

Supervisor Received

Branch Chief.

General Supervision "A".

The administrative guides are appropriate parts of Part 10 of the Code of Federal Regulations, the NRC Management Directives System, guides of the Office of Nuclear Reactor Regulation and Division of Project Management.

Independent Action

Approves:

Personal, written testimony for hearings held by the Atomic Safety and Licensing Board before which he/she represents the NRC on assigned projects.

Recommends:

Approval of review schedules and changes to review schedules related to the staff's safety review of assigned projects.

Approval of construction permits and operating licenses for assigned projects.

Resolutions to technical issues which may impact documented, staff technical positions or staff policies.

Acceptance or rejection of new applications for docketing based on the completeness of the technical information presented by the applicants.

Approval of the issuance of Safety Evaluation Reports and supplements to Safety Evaluation Reports related to assigned projects.

Concurs:

With the factual and technical accuracy of questions and technical positions prepared by the staff technical organizations prior to transmittal to applicants for assigned projects.

With the factual and technical accuracy of the various sections of Safety Evaluation Reports and supplements to Safety Evaluation Reports prepared by the staff technical organizations prior to recommending approval for issuance for assigned projects.

Work Accepted Without Review:

Preparation of minutes of meetings with applicants or potential intervenors.

Conduct of meetings with applicants or potential intervenors.

Oral testimony before Atomic Safety and Licensing Boards.

Oral statements before the Advisory Committee on Reactor Safeguards.

Determination of appropriate amount of coordination necessary and the carrying out of necessary coordination to assure the timely and efficient safety review of assigned projects.

Recommendations to technical organizations as to appropriate resolution of technical issues related to assigned projects where recommendations do not affect documented, staff technical positions, or staff policies.

Preparation of the Safety Evaluation Report and supplements to the Safety Evaluation Report by integrating the various inputs from the technical organizations into a consistent and readable document prior to transmittal to higher management levels and the Office of the Executive Legal Director review and/or approval.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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5

Normal. Occasional field trips, meetings, and inspections require travel by air or rail and may result in appreciable time in travel status.

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**EFFORT**

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5

Normal. Increased physical effort may be required while on field trips.

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**TOTAL SCORE**

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875

SENIOR NUCLEAR ENGINEER, GS-0840-15

## BENCHMARK

## FUNCTIONAL STATEMENT

Serves as a specialist in the nuclear systems and engineering field, reviewing and evaluating the safety considerations associated with containment systems which are external to the cladding of the core and the immediate protection of the reactor vessel. Acts as the NRC expert and consultant on ice condensation containment systems, including all aspects of such systems used to contain accidents within building structures.

## REGULAR DUTIES

As the NRC technical expert on ice condensation containment systems, develops standard review plans used within NRC in evaluating such systems. Provides the primary technical input in the development of standards and regulations dealing with containment systems. Provides expert testimony to hearing boards and committees on these systems, as required. Conducts generic studies of the manufacturer's test and code development program for these systems. Renders technical guidance and advice to other organizations within NRC, as requested.

Reviews and evaluates from a safety standpoint containment systems proposed for construction permit or operating license. Determines adequacy of design and criteria applicable to such systems. Evaluates the potential hazards associated with the containment system engineering and features of the proposed design and operating procedures.

Prepares portions of the safety evaluation reports relating to the containment systems of proposed power plants. Determines whether the containment system proposals provide assurance of maximum safety to the health and welfare of the general public.

Assigned, and in some instances proposes, unusual or unique generic studies and problems for review dealing with containment systems. For example, conducts studies to propose revision of containment regulations in Appendix J to 10 CFR 50 involving changes in required frequency of tests, what equipment will be tested, and criteria to be applied in tests of containment systems.

Recommends that NRC undertake special development or research work at the national laboratories for the purpose of enhancing the safety of new containment system concepts. Monitors and guides contracts let for the conduct of such work.

Confers periodically with key representatives or organizations proposing new reactor plants and new containment system concepts during the development of containment system engineering design details which have a direct bearing on the safety of the contemplated project. Obtains information and gives guidance on criteria and approaches.

Acts as working leader for other Branch members as assigned by Branch Chief.

## ANALYSIS

## BASIC SKILLS

545

Knowledge of the principles, theory and practices in the field of nuclear engineering with specific knowledge of the electrical, mechanical, and chemical phases of reactor engineering. Competence must be of a degree to adequately evaluate the various containment system concepts proposed by organizations specializing in the nuclear field, particularly with respect to problems associated with containment systems, pressure vessels, piping, instrumentation, and use of special materials, pumps, valves, and safety-control mechanisms.

Expert knowledge and several years of experience in the field of containment system design, systems analysis and operation and testing of containment systems to supplement engineering education. Authoritative expert knowledge utilized by all levels, as appropriate, of the NRC in the specific technology and state-of-the-art of ice condensation containment systems.

Knowledge of research and development work in the field of containment system development conducted by other government agencies or under contract to NRC.

The basic skill requirements are considerably in excess of those secured in formal education at the university level (B.S. degree or equivalent) and are comparable to those achieved from graduate level training coupled with several years of specialized experience in reactor technology and associated subjects obtained through practical engineering application.

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CONTACTS

160

Continuous contacts with senior and middle level technical and professional staff throughout NRC for the purpose of providing authoritative expert advice on ice condensation containment systems, as well as competent technical advice and guidance on other containment systems.

Frequent contacts with private industry consultant firms, senior representatives of public utilities, other government agency representatives, and senior technical personnel of national research laboratories to discuss controversial or unique technical containment system problems. Represents the NRC as authoritative technical expert in assigned work area with authority to persuade other organizations to alter directions of effort and approaches to technical work.

Occasional contacts with the Advisory Committee on Reactor Safeguards and Atomic Safety Licensing Boards and Panels to provide expert information, advice and testimony in his work area.

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RESPONSIBILITY FOR DECISIONS

225

Supervision Received

Section Leader, Containment Systems Branch, Office of Nuclear Reactor Regulation.

General Supervision "A".

On technical matters has full authority to act within the framework of broad functional assignments. Technical findings are generally accepted by Branch Chief and higher levels as authoritative. The administrative guides are NRC Manual and NRC policy. Operational guides are in the form of memoranda or verbal directives. Incumbent is instrumental in the development of original standards, guides, and codes in this field of endeavor.

Independent Action

Gives expert testimony at Atomic Safety Licensing Board meetings and expert advice to the ACRS and other NRC elements on ice condensation containment systems. His judgments in this technical area are viewed as authoritative by all levels within NRC.

Responsible for making final technical recommendations, for action to be taken by the Chief of the Branch with respect to engineering aspects of containment systems designs.

Coordinates detailed aspects of evaluation of the assigned portions of power reactor applications by members of the staff under the direction of the Chief of the Branch. Recommends technical input to engineering standards, guides and codes for the design, operation, and location of containment systems.

Reviews proposals to determine that potential hazards are recognized and recommends that adequate protective measures be incorporated in the design, construction and operating procedures for containment systems when deemed necessary to protect the health and safety of the general public.

Conducts investigations of reactor system incidents and recommends actions to be taken to remedy deficiencies in the plant, particularly with regard to the containment systems provided.

Represents the NRC in meetings dealing with containment systems safety whether held in conjunction with NRC-sponsored programs or private programs.

Contributes to the formulation of long-range objectives of the licensing program as related to the technical aspects of the regulations.

Makes decisions regarding technical amendments to applications for containment systems submitted by industrial firms when such problems fall within the major policies established by the NRC.

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SUPERVISION EXERCISED

None.

**EVALUATION OF GS-1 - 15 POSITIONS**

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**WORKING CONDITIONS**

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Normal office conditions while in Washington. Frequent travel involved. Exposure to mild radiation from reactors will be encountered occasionally.

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**EFFORT**

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5

Normal effort involved in any administrative position. Increased physical effort may be required while on field trips.

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**TOTAL SCORE**

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940

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EVALUATION OF GS-1 - 15 POSITIONS

SENIOR RADIOACTIVE MATERIAL ENGINEER, GS-0801-15

BENCHMARK

FUNCTIONAL STATEMENT

Serves as the NRC authoritative technical expert on the regulations and other standards for transportation (foreign and domestic) of radioactive materials. Identifies critical issues relative to public health and safety in need of policy and standards development or reassessment; recommends nature, scope, and types of action to be taken considering socio/economic and environmental impacts. Coordinates NRC transportation, legislative, and policy requirements with other cognizant Federal, State, and local agencies and is the NRC transportation representative at meetings of the International Atomic Energy Agency. Takes the lead role in the conduct of generic studies and technical analysis on highly sensitive, complex issues pertaining to the transportation of radioactive materials. Provides expert, authoritative advice and consultation on NRC transportation policies and standards (rules, regulations, criteria, and regulatory guides) to advisory committees and boards as well as to top level NRC staff.

REGULAR DUTIES

Takes lead role in the assessment and reevaluation of the safety/effectiveness and coverage of current NRC policies and standards relative to such matters (among others) as: quality assurance in fabrication and use of packaging; emergency response to transportation incidents; radioactive exposure to transport workers and the public during normal transportation; impact of transportation accidents; physical protection in transit. Such assessments are designed and undertaken, often with the assistance of other professional staff or under contract for outside technical support in order to attain and maintain a high level of environmental protection and public safety.

Develops and recommends alternatives to current policies and standards relative to the transportation of radioactive materials taking into account:

- a. variation in isotope radiotoxicity in turn affected by variations in quality, form, and dispersibility.
- b. mode of transportation--air, rail, truck, and water.
- c. route and urgency of travel.
- d. other concerned Federal, State and local agencies.
- e. public and Congressional interest as expressed through petitions, legislation, media, etc.

Develops proposals; negotiates, clarifies, defends, and coordinates them with the regulatory requirements of domestic and international agencies (DOT, FAA, ICC, DOE, IAEA, etc.) particularly as to passenger and cargo handler's exposures, the use or nonuse of special transport carriers, special equipment, alternative routes, carrier's controls and responsibilities, shipper's responsibilities.

Develops and recommends transportation policy and routings through urban areas considering, e.g., population density, diurnal variation in population, convergence of transportation routes, shielding effects of buildings, local meteorological experience as well as modes of transportation and equipment needs.

Undertakes risk assessment studies on the environmental impact of radioactive material using various modes of transportation (such studies may be with the assistance of a task force or under contract)--radiation exposure during transportation, consequence of a major accident and assumed subsequent release of radioactive material considering such variables as nature and severity of the accident, types and number of packages subject to failure, meteorological conditions existing at time of the accident, mitigating actions, emergency and contingency preparedness, etc. Develops alternative recommendations such as shifts in transportation mode, vehicle or carrier modifications, changes in packaging requirements, changes in physical properties of the radioactive materials for purposes of transportation. As critical gaps in technological knowledge are exposed, recommends areas for research either by contract or by the NRC Office of Nuclear Regulatory Research.

Develops and recommends limitations on the contents of a package according to the quantity and type of radioactivity and engineering test requirements for types of packages of radioactive material, and revisions thereto, for foreign and domestic regulations, based on consideration of normal, abnormal and accident transport conditions, the physical and chemical nature of the contents, and available practical measures that can be expected to be taken under emergency conditions. In choosing the test conditions, consideration is given to practical methods of achievement, reproducibility of results, and adequacy to demonstrate safety under real transport conditions.

Performs continuing reappraisals of the limitations on contents and test requirements in view of increasing numbers of shipments and quantities of material to be transported, changing methods of carriage and handling, to ensure that risks and exposures in transportation are as low as reasonably achievable.

Assists Branch Chief in planning, directing and coordinating Branch policies, objectives and programs related to the areas of assigned responsibility.

Coordinates and resolves the technical reviews of associated American National Standards Institute's (ANSI) standards by the Office of Nuclear Material Safety and Safeguards, Inspection and Enforcement, State Programs, and Executive Legal Director.

Develops, sometimes through the management of technical assistance contracts, cost data, value-impact and environmental-impact statements, and data concerning radiation safety effects on operating personnel and the public in order to identify alternative methods of solving problems associated with the areas of assigned responsibility.

Directs, coordinates, and evaluates technical support work performed by national laboratories or industrial contractors to establish the bases for rules and guides. Continuously takes action necessary to improve the contractor's performance. Initiates and conducts contractor performance review group meetings to assure that the desired objectives of the work are being met. Takes the initiative to redirect the contractor's effort when it is determined that such action is necessary.

Coordinates all the technical and legal input associated with NRC's technical criteria, regulations and guides in assigned functional area, and resolves differences arising from this coordinating process. Acts as NRC representative to ANSI standards committees which develop and issue industrial standards related to assigned functional area.

Maintains a continuing liaison with appropriate organizational components of the NRC in order to keep them informed of plans and programs in assigned functional area.

As directed, participates in other activities related to assigned functional area.

#### ANALYSIS

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#### BASIC SKILLS

535

A broad but thorough knowledge is required of health physics and general engineering sufficient to develop, coordinate, and administer NRC's program for the development of technical criteria, standards, rules, and guides for protecting the environment and the public health and safety in the transportation of radioactive materials and the possession, use and disposal of by-product, source and special nuclear material in products other than those involved in the nuclear fuel cycle.

Must have an understanding of the technical and administrative aspects of radiation and environmental protection in the possession, use, disposal and transportation of radioactive material sufficient to assure that all technical aspects are adequately considered in NRC rules and guides.

Thorough knowledge is required of the NRC's statutory responsibilities for establishing technical standards, criteria, rules, and guides for environmental protection and the safety of persons affected by such activities.

The ability to manage a scientific and technical program of national significance is required, including the ability to control and direct contractors' technical efforts within reasonable funding allocations and work schedules.

Skill is required in the techniques of presenting scientific material in oral and written form adequate to develop and prepare full, clear, concise technical reports and analyses. Ability is required to secure cooperation, lead others, perform liaison activities, and to secure satisfactory solutions to complex problems.

Requires a working knowledge of legislative, policy requirements and standards promulgated by other Federal agencies and outside groups and familiarity with recommendations of national and international committees on radiation protection, industrial safety codes and engineering practices in order to effectively establish and negotiate NRC's position in dealings with other agencies and the public.

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#### CONTACTS

165

Frequent contacts with Branch Chiefs and Directors within the Office of Standards Development; with mid-level management and senior professional personnel in other NRC organizational units, and in State and other Federal agencies, with consulting scientist and academicians in the development and coordination of standards, and with national laboratories in the planning, developing, evaluating and coordinating of technical assistance programs. Must be able to reconcile in meetings and discussions the different viewpoints on criteria and parameters to be utilized in standards and to defend his technical positions and conclusions:

**EVALUATION OF GS-1 - 15 POSITIONS**

Occasional contacts with Executive Director for Operations, Advisory Committee on Reactor Safeguards, the Commissioners, or their staffs at special briefings to present information related to assigned responsibilities.

With all levels of management and senior technical personnel of industry, national standards committees and universities or the exchange of information and opinions in the development and coordination of standards.

With representatives of other countries and international organizations in the development and coordination of standards.

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**RESPONSIBILITY FOR DECISIONS**

230

Supervision Received

Chief, Transportation and Product Standards Branch.

General Supervision "A".

Guidelines are appropriate sections of the Atomic Energy Act of 1954, as amended, the Environmental Policy Act of 1969, the Energy Reorganization Act of 1974, Chapter 1 of Title 10 of the Code of Federal Regulations, the Administrative Procedures Act, the NRC Management Directives System, scientific and technical publications, precedents and judgments gained from experience.

Independent Action

Recommends scope of work for research and technical support needed to establish the bases for rules and guides in assigned functional area.

Recommends new, and revisions to existing, NRC rules and guides in assigned functional area.

Recommends position for official NRC ballot on and endorsement of ANSI standards in assigned functional area.

Recommends program and budget items in assigned functional area.

Initiates contract negotiations with DOE laboratories or others to perform technical support work.

Prepares value-impact appraisals.

Evaluations of existing standards to protect workers, the public, and the environment against ionizing radiation originating from NRC-licensed activities.

Guidance and recommendations to NRC offices and other agencies and groups on radiation protection standards within established NRC policies.

Make the day-to-day technical decisions required for the effective management of technical support work performed by contractors.

Makes decisions required to resolve technical differences between NRC office representatives on radiation protection standards.

As member of ANSI working group, votes on submitting standard to committee for review.

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**SUPERVISION EXERCISED**

None.

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**WORKING CONDITIONS**

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Normal office conditions with occasional visits to industrial facilities.

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EFFORT

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Normal.

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TOTAL SCORE

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940

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EVALUATION OF GS-1 - 15 POSITIONS

SENIOR REACTOR ENGINEER, GS-0840-15

BENCHMARK

FUNCTIONAL STATEMENT

Serves as senior project manager and team leader for the planning, organizing, directing, and coordination of an assigned major research effort for the study and evaluation of the behavior of engineered safety systems, such as emergency core cooling systems, during postulated light water nuclear reactor accidents. The purpose of such research, undertaken by contracted research laboratories, is to determine the effectiveness of the NRC licensing requirements and codes for emergency core cooling systems required of commercial nuclear reactor power plants.

A "major" research project is characterized by:

The research project is of sufficient criticality, complexity, and potential on the safety of nuclear reactors, and correspondingly, the NRC licensing program as to warrant the full-time assignment of an outstandingly qualified, experienced reactor engineer to organize, control, direct, and report on:

- a. A research project, while limited in scope, is of such magnitude, importance, and urgency that it has an annual allocation of multiple millions of dollars, the dedication of a highly instrumented nuclear reactor facility, and the required use of a number of research laboratories skilled in the subject; or
- b. A research project of great scope, but of lesser monetary magnitude, requiring the accomplishment of a number of research studies each on a phase of the total assigned research effort, the use of a larger number (e.g., more than 10) of private contract laboratories, and University laboratories for different phases, and correspondingly, a high degree of professional and managerial skill to control and integrate the many subdivisions of the effort.

The projects represent important inquiries into areas not easily subject to observation or experimentation to establish parameters or codes for the confirmation of specific NRC license requirements; thus requiring the conduct of many pioneering experiments adding significantly to the level of scientific knowledge.

The magnitude and criticality of the project requires the organization of the work into phases and divisions of effort for assignment to NRC professionals in appropriate disciplines as team members for the accomplishment of the research and monitoring the work of contract laboratories and consultants.

The project requires a high degree of sophisticated application of scientific theory, experimentation and simulation, to obtain the program objectives. The program area will usually consist of a number of interrelated projects being directed toward the same technical goal.

REGULAR DUTIES

Provides primary program management and technical direction for the assigned research and development program activity. In this connection, undertakes the following:

Program Planning

- a. Prepares recommendation on the nature and extent of the research to be undertaken taking into consideration among other matters:
  - current level of scientific knowledge regarding the problem, issues, and concerns as developed in discussions, reports, and recommendations of NRC licensing staff, NRC Advisory Boards, research laboratories and coordinative Federal agencies (i.e., DOE) and other having an interest in the research effort.
  - relative urgency of the effort considering previous efforts, proposed milestones, availability of equipment, and facilities.
  - staff situation within immediate office and available professionals with appropriate disciplines.
  - availability of appropriated funds for current fiscal year and prospects for subsequent fiscal years if project has extended duration.

Prepares work schedules, scope of work, milestones, etc. Organizes work effort into phases and divisions and makes assignments to professional staff assigned as team members, where applicable.

Reviews and evaluates plans and proposals submitted by laboratories for undertaking a research effort under contract. Evaluates the proposal and laboratory considering past record of performance, capabilities of staff, nature of equipment and facilities, contract terms and recommends program scope and awarding of contract.

Approved: April 30, 1980

**Project Direction**

- a. **Manages and coordinates work of the assigned team members and contract laboratory personnel in the accomplishment of their respective assignments.**

Reviews results of research and safety systems tests to assess progress and to assure that such work is applicable to thermal-hydraulic model development.

Reviews with team members and contract personnel problems, accomplishments, milestones, adjustments needed in equipment, staff, or facilities, adequacy of instruments for measurement, usefulness of data for projections, and computerization; and based on such reviews and evaluations, prepares recommendations for program changes, new directions, new milestones consistent with the overall objectives and requirements of the Division's functional responsibilities.

Closely monitors the financial expenditures of contractors under direct cognizance and recommends budget adjustments or justifications as appropriate.

Provides assistance to other Divisions, field offices, industry and other agencies on nuclear safety research and model applicability.

Provides consultation to other NRC personnel to assist in the formulation of regulatory criteria and guides applicable to the safety assessment of light water reactor systems.

Arranges and conducts technical meetings and conferences with technical personnel of DOE, national laboratories, contractors, and universities to discuss progress and relevance of the information to NRC and national policy objectives. Participates as a panel member at professional engineering societies concerning issues on nuclear reactor safety, and contributes technical articles to professional periodicals on the subject.

Team leader of two or three professional engineers depending on extent and complexity of project.

**ANALYSIS**

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**BASIC SKILLS**

54

Extensive theoretical and practical knowledge of thermal-hydraulic, fluid dynamics, heat transfer, nuclear engineering, and operations of light water nuclear powered commercial reactors. Such knowledge is evidenced by an advanced degree in the physical sciences or its equivalent and many years of progressively responsible experience in reactor research and/or operation.

Broad knowledge and experience of theoretical and engineering analysis of nuclear systems. This knowledge must be sufficient to permit analysis of programs encompassing unique studies and projects in uncharted fields which will substantially advance knowledge in the nuclear safety field.

Working knowledge in other scientific and engineering disciplines related to nuclear safety such as metallurgy, fluid mechanics, chemistry, neutronics and numerical analyses to permit authoritative judgments on concepts and experiments which will affect program direction and the use of complex analysis concepts in connection with the interpretation of nuclear reactor accidents.

Broad knowledge of the Commission's entire reactor program, and safety problems which require further investigation and study for their resolution.

Thorough knowledge and understanding of commercial and industrial operations in the area of nuclear safety.

Substantial knowledge of reactor design and engineering practices and of research and development work being done by government or private laboratories to effectively evaluate the feasibility of recommended programs, and to insure that the efforts of other agencies and laboratories are not being duplicated.

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**CONTACTS**

165

Daily contact with Branch Chiefs and Assistant Directors in the Division of Reactor Safety Research and with senior professional personnel in other NRC divisions to develop research plans and schedules, justify projects and determine implementation procedures.

Frequent contact with the Director, Division of Reactor Safety Research, and his principal assistants, in the review or evaluation of particular projects and plans concerning program assignment and other safety research development.

**EVALUATION OF GS-1 - 15 POSITIONS**

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Frequent contacts with senior and management personnel of operations offices, national laboratories, universities and industrial contractors. These contacts are for the purpose of planning programs, reporting progress of work, evaluation of related programs, providing technical advice and assistance and coordinating the application of program results with codes, standards, analyses methods, and Regulatory criteria.

Occasional contacts with representatives of foreign governments, international agencies, OMB, and JCAE to discuss programs of mutual interest or technical aspects of research pertinent to safety assessments.

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**RESPONSIBILITY FOR DECISIONS**

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225

Supervision Received

Chief, Systems Engineering Branch.

General Supervision "A". Guidelines are overall NRC and Division policies as defined in the organizational responsibilities of the Division of Reactor Safety Research.

Independent Action

Recommends to the Branch Chief and the A/D for Water Reactor Safety Research new or modified research goals and objectives for the Division programs.

Evaluates the technical relevance of research programs, and recommends changes in scope, funding, and priorities relative to achieving Division goals and objectives.

Makes technical decisions relative to programs under his cognizance and determines management changes or redirection subject to only policy review by division management.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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5

Normal office conditions.

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**EFFORT**

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5

Normal administrative effort with frequent contact with field laboratory and contractor personnel including visits to ascertain program progress.

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**TOTAL SCORE**

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940

EVALUATION OF GS-1 - 15 POSITIONS

SENIOR REACTOR SAFETY ENGINEER, GS-0840-15

BENCHMARK

FUNCTIONAL STATEMENT

Undertakes analytical research for assigned projects and program to meet regulatory needs for validated model computer codes for the analysis of all types of advanced reactors. These codes, supported by scientifically adequate experimental validation will serve as "tools" by the licensing staff of NRC in their consideration of a request for the construction and operation of an advanced reactor plant.

REGULAR DUTIES

As a member of the professional staff of the Analytical Advanced Reactor Safety Branch, for the assigned research area, i.e., plant systems safety, the incumbent manages research programs dealing with the development of an advanced thermohydraulic system transient codes and supporting analytical methods. In this connection, he undertakes the following:

Program Planning

Reviews with appropriate NRC licensing staff coordinative federal energy development agencies (i.e., DOE), scientists of federal laboratories, and NRC research professionals the status of current research, knowledge, and developments regarding plant systems safety (of advanced type reactor components and facilities), and the nature, extent, and priorities for further reactor safety research. Using a broad and unique knowledge of problems on advanced reactor safety, user requirements and priorities and of applicable scientific techniques and limitations, recommends the undertaking of specific experimentation and simulation research to develop computer model codes to be used for the assessment of the postulated malfunctions in the plant.

Recommends the level of effort, schedule, and emphasis to be assigned specific areas of research within the constraints of budget, awareness of gaps in current technology, and procedures, and the capability of professional laboratories to accomplish the proposed research. Accomplishes necessary justifications and defines purposes, milestones and funds required. Integrates his programs with other research efforts and plans in Advanced Reactor Safety Research.

Reviews and evaluates plans and proposals submitted by national laboratories, universities and research and development companies to determine which proposals show the greatest promise for advancing the capability for confirmatory assessment of safety-related aspects of advanced reactors. This evaluation will be based on a broad knowledge of the current state-of-the-art, research accomplishments, and priority of research needs. Occasionally directs ad hoc study groups in such evaluations.

Program Direction

Manages research studies assigned by contract to government, university, or private laboratories which assess, by experimentation and simulation, the postulated accidents in advance type reactors. Research studies undertaken are concerned with the plant system under accident conditions requiring the exercise of detailed knowledge of the most current concepts in physics and nuclear engineering (e.g., thermal hydraulics). Reviews with professional and scientific personnel of the contractor the objectives of the experiments and simulations to be pursued, the design of the experiments, the identification of the safety issues to be analyzed, the analysis process, the preliminary findings and further areas of investigation, specialized instruments to be used or developed, and the conversion of such findings into phenomenological models for inclusion into computer codes. Ensures the effective coordination of research findings on significant items of plant equipment or plant controls such as cooling loops, evaporators, steam generators, turbines into a comprehensive review of the plant system and the interaction of localized malfunctions in the system.

Reviews with NRC users and professional and scientific personnel of the contractor the simulation of transient and accident situations in the advanced reactor plant in the computer codes and develops the most useful way to present the results of the simulation. Confers with NRC users and professional and scientific personnel of the contractor on the credibility of the computerized codes being developed or proposed for computations of time, space, dimensional, and synergistic factors during total or partial accident sequences and the subsequent usability of such codes by NRC licensing staff.

Confers with the Branch Chief and other professionals in the Division regarding their assigned areas of reactor safety research to ensure coordination of efforts, utilization of knowledge and techniques, and prospective application of findings.

As Chairman of Technical Review Groups and ad hoc study groups, and through independent action, evaluates progress in on-going programs, coordinates the work with related efforts in the U.S. and abroad, develops solutions to new and unusual problems, formulates and provides guidance on the direction of work and planning for the future.

Maintains liaison on technical matters with all cognizant groups to obtain early indication of program trends likely to require new programs and/or changes in existing programs in analytical advanced reactor safety.

Reviews monthly or other periodic and topical reports on contract activities underway to assure that the general trend of work and preliminary results continue to merit support in terms of probable results and eventual application. Directs attention and special emphasis to unique problems which arise and recommends major redirection of efforts to overcome such problems or to abandon general lines of study. Evaluates the results of research and development contracts in terms of validity and soundness of engineering data produced.

Maintains liaison through personal contacts (and continual review of scientific reports and literature) with leading technical experts and other personnel engaged in research to determine the importance and application of findings to problems in advanced reactor safety. Serves on committees, attends professional meetings and keeps informed of the latest concepts, theories, and findings where these may have an important influence in the scope and content of safety research for all advanced reactor systems with potential NRC application.

### ANALYSIS

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#### BASIC SKILLS

540

Extensive theoretical and practical knowledge of the fields of reactor physics and kinetics; nuclear engineering; heat transfer; fluid dynamics; and equipment used or proposed for use in reactors is essential to assure an adequate basis for technical direction of programs vital to reactor safety assessment. Such knowledge is evidenced by an advanced degree in the physical sciences or its equivalent and many years of responsible experience in reactor research and development.

Knowledge of model development for computer application; materials science, aerosol behavior, instruments, radiation effects, and reactor operations, for evaluating the significance of problems in analytical reactor safety research. Experience in the use of computer solutions of scientific problems to ensure effective technical direction of analytical programs.

Ability to understand the diverse technical and administrative aspects of complicated advanced reactor safety programs, to reach rational conclusions as to desirable action, and to present issues clearly for top management consideration.

Knowledge of the technical and administrative procedures unique to the licensing and regulation of nuclear power plants sufficient to have the necessary insight to develop research programs responsive to regulatory needs.

Knowledge of modern business management techniques to assure proper control, and administration of scientific research and development projects.

Ability to present conclusions regarding complex technical subjects in clear, concise language both orally and in writing for management information and decision.

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#### CONTACTS

165

Frequent contacts with Assistant Directors of Division, and management and technical personnel of operating and proposed contractors, to develop long-range plans, determine implementation procedures, justify the projects, and to evaluate technical content of program.

Frequent contacts with middle management personnel in NRC contractor organizations to develop program schedules, arrange for technical programmatic amendments and to assure technical coordination among contractors.

Continuous contacts with professional staff of the Division of Reactor Safety Research on matters pertaining to the Commission's analytical advanced reactor safety research program and concerned with action to be taken on specific problems.

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#### RESPONSIBILITY FOR DECISIONS

225

##### Supervision Received

Chief, Analytical Advanced Reactor Safety Research Branch.

EVALUATION OF GS-1 - 15 POSITIONS

General Supervision "A".

Guidelines are the NRC Management Directives System, NRC Procurement Regulations, Division and overall NRC policy, technical reports and publications.

Independent Action

Recommends:

- a. Long-range plans and programs connected with Analytical Advanced Reactor Safety Research in the Areas assigned.
- b. Programming to meet established objectives, specific provisions of contracts relative to the technical phases of a given contract, and termination or extension of contracts based on relative value of work.
- c. Courses of action which might be of benefit to all the overall Analytical Advanced Reactor Safety Research Program.

Evaluates overall contractor performance as it pertains to the Analytical Advanced Reactor Safety Research Program.

Decisions Made Without Review

- a. Determines through visits to contractor sites that work is progressing on schedule.
- b. Resolves day-to-day technical and administrative problems concerning all aspects of the projects.
- c. Anticipates problems and takes preventive action.
- d. Maintains overall coordination within the program.

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SUPERVISION EXERCISED

None.

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WORKING CONDITIONS

5

Normal office conditions. Frequent field trips.

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EFFORT

5

Normal administrative effort.

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TOTAL SCORE

940

EVALUATION OF GS-1 - 15 POSITIONS

SENIOR WASTE MANAGEMENT PROJECT MANAGER, GS-0801-15

BENCHMARK

FUNCTIONAL STATEMENT

Manages and coordinates most complex and unique projects for the storage and disposal of high level radioactive waste. Develops the methodology and guides for the management of such projects.

REGULAR DUTIES

Manages and coordinates the most difficult projects for the storage and disposal of large quantities of highly radioactive waste. For example, manages and coordinates the complex multi-disciplinary effort of the license evaluation for the first national repository for high level waste, which involves large numbers of contractors and budgetary expenditures in excess of one million dollars. In order to do so incumbent identifies tasks to be performed, selects contractors, coordinates the entire effort, and expands, redirects or terminates programs as necessary, producing a finished product ready for review by the Branch Chief.

Proposes and develops research programs, studies, safety reviews, and environmental impact assessments related to the high level waste repository licensing review.

Acts as a liaison between the High Level Waste Branch and contractor personnel, administering technical support contracts related to the HLW repository licensing review.

Monitors and directs the activities of special study groups, task forces, and contractor studies directed at obtaining data related to the licensing of the high level waste repository. Communicates independently with the licensee to obtain information for these special studies.

Evaluates study results and coordinates the preparation of reports, environmental impact statements, and safety evaluation reports.

Assists in the development of regulatory waste management policies, recommending improvements and instituting procedures designed to accelerate the licensing process.

Participates in liaison mechanisms with other agencies in waste management activities, including EPA, DOE, state and local government specifically to maintain cognizance of on-going research and to assure the adequacy and appropriateness of program direction.

Maintains awareness and proficiency in current and developing techniques and theories of systems analysis by frequent contact with researchers in the field through site visits and professional meetings.

Develops methods for the analysis and evaluation of license applications with respect to waste management activities, through review of present regulatory procedures.

Prepares policy analysis papers and technical reports pertaining to the waste management program for use by the Branch Chief in developing waste management policy.

ANALYSIS

BASIC SKILLS

540

Technical knowledge comparable to that of a B.S. degree in science plus advanced graduate study and several years experience in a field related to nuclear systems sufficient to provide technical direction to programs leading to the establishment of a license review process for HLW repositories.

Ability to manage interdisciplinary groups involved in engineering design and analysis and safety and environmental analysis in order to structure and manage special projects designed to develop scientific data in a short period of time.

In depth knowledge of engineering principles and processes associated with waste material systems and material control in order to coordinate and evaluate technical research efforts.

Ability to review and evaluate the need for a sub-study within HLW management systems studies and to define the sub-study once the need is identified in order to expand, redirect, or terminate programs.

Ability to coordinate and manage programs, studies, etc., carried out at contractor facilities involving a number of technical disciplines, in order to avoid duplication of effort and insure desired results.

Competence in both oral and written presentations in order to develop presentations for the use of Branch Chief or incumbent before various organizations involved in high level waste activities.

In-depth knowledge of licensee operations and the nuclear fuel cycle, with the ability to determine and evaluate the need for technical standards and criteria, as well as a knowledge of the Atomic Energy Legislation and implementing regulations (Title 10, Code of Federal Regulations) and NRC policy pertaining to the administration of these regulations.

Demonstrated ability to perceive and evaluate policy questions involved in the nuclear waste management program to insure proper results of research efforts.

General knowledge of the functions of other Federal and State regulatory bodies with responsibilities for regulating the nuclear industry to insure proper coordination of waste management activities and avoid duplication of effort.

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**CONTACTS**

165

Continuous contacts with Directors, Assistant Directors and Branch Chiefs in various NRC offices and divisions to coordinate and develop high level waste research programs and for determining policy regarding the HLW repository.

Continuous contact with DOE and State and local Government officials in both coordinating waste management practices and in the exchange of technical and policy information regarding the HLW repository.

Frequent contact with executives and staff level personnel of private and Government organizations and universities to monitor and evaluate the technical context and policy of programs or studies concerning waste storage and disposal carried out under NRC contracts.

Frequent contact with technical and administrative personnel of licensee to keep abreast of developments in HLW licensee operations.

Occasional contact with the Office of the General Counsel to assure legality of prepared legislation.

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**RESPONSIBILITY FOR DECISIONS**

225

Supervision Received

Branch Chief, High Level and Transuranic Waste Branch.

General Supervision "A".

Guides are NRC and NMSS regulations and directives.

Independent Action

Manages and directs the efforts involved in licensing the HLW Federal repository.

Administers contractual service contracts to provide technical base for review of license applications for the HLW Federal repository.

Identifies, recommends, and defines studies in support of the waste management effort, conducts their implementation as a joint study with other Federal agencies, with other NRC offices, as independent contract support efforts, or as in-house projects. Directs the use of information gained from studies in the licensing process.

Monitors the activities of special study groups, task forces, and contractor studies directed at obtaining data and developing licensing procedures and standards for repository licensing activities and redirects them as necessary.

Directs the preparation and administration of technical support contracts and recommends contractor selection for technical support contracts based on evaluation of bids, etc. Directs the use of contractor reports in license evaluations.

Explores need for and establishes working liaison with multiple Federal agencies and acts as a liaison with other agencies involved in waste management activities including EPA, DOE state and local government, especially as they deal with the Federal repository.

**EVALUATION OF GS-1 - 15 POSITIONS**

NRC Appendix 4130-A  
ENG-270

Assembles and directs interdisciplinary (and interoffice) teams for licensee reviews.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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Normal.

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**EFFORT**

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Normal.

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**TOTAL SCORE**

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940

Approved: April 30, 1980

## SR. ENVIRONMENTAL PROJECT MANAGER, GS-0801-15

## BENCHMARK

## FUNCTIONAL STATEMENT

Serves as a senior project manager in the management of activities associated with the review, analysis, and evaluation of environmental reports and preparation of NRC Environmental Statements pursuant to 10 CFR Part 51.

## REGULAR DUTIES

Manages the environmental review of applications for construction permits and operating licenses for several nuclear power plants. Two or more of these assignments are characterized by one or more of the following difficulties or complexities (or comparable ones):

The proposed site is on an estuary, which causes a large variety of environmental concerns.

The plant has first-of-a-kind features with little or no precedents; for example, a first floating power plant.

The nature of the reactor causes special public concern and attention; for example, a breeder reactor.

The proposed site is in a highly populated area where official local and State government concern is expected to be great. Public concern is expected to be very vocal.

The proposed site is on or adjacent to public park land and considerable coordination is necessary with other government agencies.

Manages and coordinates the efforts of NRC technical staff and national laboratory personnel in achieving a timely and balanced evaluation of environmental matters with respect to siting, design, and operation for nuclear power plant construction permit and operating license applications.

Conducts initial review of the applicant's environmental report to determine whether there are any major areas that are not discussed or are obviously inadequate and initiates action to obtain supplemental information to correct such inadequacies.

Manages and coordinates staff and national laboratory personnel in the review and evaluation of the applicant's environmental report and the development of specific questions to be submitted to obtain additional information. Provides supplemental information needed by staff and national laboratory personnel to whom preparation of the Preliminary Draft Environmental Statement is assigned.

Chairs technical meetings between technical staff members and applicant representatives related to assigned projects.

Represents NRC when it is the lead agency in statement development and manages the inputs of other Federal agency concerns into the Draft Environmental Statement (DES).

Manages and coordinates the independent technical effort leading to the Preliminary Draft Environmental Statement prepared by NRC staff, national laboratory personnel, and others, identifying any aspects which need further work or revision and evaluates the adequacy of the bases for substantiating technical conclusions and findings. Resolves inconsistencies and differences of opinion among the staff and national lab technical organizations and the applicants by the use of discussion and persuasion and knowledge of the technical issues and the applicable NRC requirements.

Prepares the DES based on his own knowledge of the project and integrates into the DES inputs from other staff and national laboratory personnel.

Manages and coordinates the review and evaluation by NRC staff and national laboratory personnel of all comments received on the Draft Environmental Statement from other agencies and individuals, assuring the resolution of staff conclusion regarding the potential environmental impact of the facility as required by 10 CFR Part 51.

Manages the visit to the project site and related meetings with the applicant and State and local representatives.

Prepares testimony and coordinates that of other NRC staff and national laboratory personnel with the Office of Executive Legal Director and serves as the principal staff witness in public hearings on assigned projects before Atomic Safety and Licensing Boards.

Initiates discussions with potential intervenors in hearings related to assigned projects and takes the initiative to arrange meetings with them to discuss the nature of their contentions.

Develops and maintains environmental review schedules for assigned projects through coordination with the assigned review branches in the Division of Site Safety and Environmental Analysis with the case attorneys, and with the national labs.

Provides technical information and guidance on environmental related problems and NRC policies and environmental philosophy to organizations planning to design and construct nuclear power plants.

Maintains liaison and controls the flow of information between the applicant's representatives and the staff and national lab technical organizations.

#### OCCASIONAL DUTIES

Attends and participates in technical conferences and seminars sponsored by the NRC and/or professional societies and advises the Office of Nuclear Reactor Regulation of those developments in the environmental engineering field which have a bearing on the overall NRC program.

Serves as a member of ad hoc committees and task forces composed of members from other NRC groups for the purpose of performing a specific study or resolving a generic safety issue.

Participates in and makes recommendations with regard to the development of regulations, amendments to regulations, standards, guides, and codes related to the siting, and operation of nuclear power plants by reviewing and commenting on draft documents prepared by the Office of Standards Development.

Prepares responses to principal correspondence, including communications from Congressional sources, government heads, State and local officials, the general public, foreign officials, and various industrial and civic organizations for his assigned projects.

#### ANALYSIS

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#### BASIC SKILLS

540

Thorough knowledge of the principal features of nuclear facilities which may affect environmental features at the facility site and of the environment that could be impacted by a nuclear facility. Must be capable of reviewing and understanding the efforts of others in highly specialized technical areas, developing comments and questions in regard to design criteria and design features, leading technical discussions, formulating overall technical judgments, and writing engineering reports. Graduate or equivalent level training in engineering or appropriate physical sciences, such as physics, chemistry, or ecology, with knowledge of nuclear power production facilities with respect to the general scientific and engineering principles involved in order to resolve complex engineering problems which impact on the environmental aspects.

Knowledge and ability sufficient to provide technical direction to other personnel with a wide variety of scientific expertise in the preparation of environmental statements. These personnel are specialists in a wide variety of discipline within the physical sciences (e.g., subspecialties within the various branches of engineering, as well as within physics and chemistry); the natural sciences (e.g., biology, zoology, meteorology, seismology, etc.); and the social sciences (e.g., economics, sociology, urban planning, etc.).

Must understand and have a working knowledge of the applicable laws, regulations, NRC policies, guidance and philosophy regarding nuclear power plant siting, construction, and operation.

Demonstrated ability to represent the Commission in an effective and creditable manner in dealing with the executives and principal staff of NRC licensees, industrial companies, other Federal agencies and State and municipal agencies, and NRC contractors, with respect to complex scientific problems associated with the environmental impact of nuclear facilities.

Administrative and management skills adequate to coordinate the efforts of numerous staff personnel working in many technical disciplines for assigned projects.

Demonstrated ability to participate as the lead technical witness at NRC and other public hearings with ability to state NRC policy relative to environmental review of nuclear power plants.

General knowledge of research and development work in the field of environmental engineering and environmental impact conducted by other government agencies and industrial organizations.

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**CONTACTS**

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170

Frequent contacts with technical, legal, and supervisory NRC staff in order to provide guidance and coordinate input to individual case reviews and obtain resolution of technical and legal issues, and insure timely development of necessary technical positions on generic issues.

Frequent contacts with NRC national lab staff, frequently at the senior technical or top management level, to coordinate input to individual reviews and insure performance within established schedules.

Frequent contacts with mid and top management of utilities and their consultants in connection with processing of an environmental review application for the purpose of discussing and resolving technical issues concerning the siting, construction, and operation of nuclear power plants but may include discussions of NRC policies, research programs, and radiation control.

Frequent contacts with top officials of other Federal agencies such as EPA, Corps of Engineers, and Interior, for the purpose of implementation of memoranda of understanding, to resolve technical issues which may develop between these agencies and NRC in the course of case reviews.

Frequent contacts with State and local officials, often at top levels of government, to coordinate input to environmental evaluations and to provide information concerning NRC functions and responsibilities.

Frequent contact with members of the public who evidence interest in a case review, or are admitted as parties in the case through petitions to intervene to provide opportunities for intervenors and potential intervenors to meet with staff personnel on an informal basis to permit their concerns to be communicated to the staff for consideration during the review and evaluation process and to also permit the staff to communicate its activities to the intervenors and potential intervenors.

Frequent contact with ASLB as a witness at a formal adjudicatory hearing regarding nuclear plant licensing.

Occasional contacts with ACRS, university staff, and professional societies in connection with briefings, technical consultation, and presentation of formal papers.

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**RESPONSIBILITY FOR DECISIONS**

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225

**Supervision Received**

Chief, Environmental Projects Branch.

General Supervision "A" on technical matters with full authority to act in matters within the framework of the broad functional assignment.

The administrative guides are Division and overall NRC policy and precedent standards or criteria developed by the NRC, by other Federal agencies, or by State agencies, are utilized as appropriate.

**Independent Action**

Approves:

Personal, written testimony for hearings held by Atomic Safety and Licensing Boards before which he/she represents the NRC on assigned projects.

Recommends:

Assigned acceptance review responsibility of incoming applications to NRC and national lab technical staff, and on basis of input from these groups along with his own analysis, recommends for or against acceptance of application.

For accepted applications, develops and obtains management approval of environmental review schedule (Level D)

Arranges and coordinates site visits by members of NRC and national lab technical review team and case lawyer to locality of proposed facility, and to offices of utility, appropriate State and local officials and agencies, as well as other Federal agencies involved in the review.

Review performance of technical evaluation team with respect to technical adequacy and timeliness during development of a Draft Environmental Statement (DES).

Contributes to all sections of environmental statements as appropriate.

Integrates input from various technical disciplines into a complete Preliminary Draft Environmental Statement, and conducts review of completed DES prior to management and legal review.

Assigns specific responsibility for response to comments of other agencies and members of the public that are submitted on the DES and ESRP and with assistance of case attorney, and technical reviewers, assembles a technically adequate and legally sufficient Final Environmental Statement (FES).

Develops Final Environmental Standard Review Plans for publication. Assigns responsibility for preparation of written testimony to appropriate technical branches or national labs and arranges for services of special technical consultant when required as witnesses in a case hearing.

Performs such other functions as are required to effectively manage the environmental review of a nuclear power plant application on a timely basis and a technically and legally sufficient manner.

Recommends courses of action to Branch Chief to resolve technical or policy problems that develop in the course of a review.

Work Accepted Without Review

Preparation of minutes of meetings with applicants or potential intervenors.

Conduct of meetings with national labs, with applicants, or potential intervenors.

Oral testimony before Atomic Safety and Licensing Boards.

Preparation of the Preliminary DES by integrating the various inputs from the technical organizations into a technically consistent document prior to transmittal to higher management levels and the Office of the Executive Legal Director for review and/or approval.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS** 5

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Normal. Occasional field trips, meetings, and inspections require travel by air or rail and may result in appreciable time in travel status.

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**EFFORT** 5

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Normal. Increased physical effort may be required while on field trips.

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**TOTAL SCORE** 945

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## SENIOR OPERATING REACTOR PROJECT MANAGER, GS-0801-15

## BENCHMARK

## FUNCTIONAL STATEMENT

Manages and participates in the review and evaluation of safety and environmental considerations associated with the design and operation of power, research and test reactors, especially those licensed for operation.

## REGULAR DUTIES

Manages and coordinates the performance of all NRC licensing functions on assigned reactor facilities that have been licensed for operation.

Normally assigned several licensed nuclear power plants, two or more which are characterized by one or more of the following difficulties of complexities (or comparable ones):

The power plant or a major subsystem thereof, has had a history of difficult or complex technical problems of a magnitude or number greater than those normally found in operating nuclear power plants.

The power plant has environmental problems, real or perceived, which has made it a controversial issue among members of the public to the extent that intervenor action has caused lengthy public hearings concerning proposed licensing changes or amendments.

The operating license was granted with a number of issues pending which will require completion before the plant can be operated at higher power levels originally contemplated.

The licensee has need of an unusually high degree of guidance and coordination.

Manages and participates in the review and evaluation of applications for license amendments, including technical specification changes for assigned power, research, and test reactors.

Initiates actions for license amendments, including technical specification changes, for assigned power, research and test reactors to reflect current NRC safety and environmental criteria and policy.

Coordinates and schedules the reviews by personnel within Branch, other parts of the NRC organization and outside consultants of submittals from applicants and licensees. Coordinates the preparation of and completes related safety and environmental evaluation reports thereon.

Evaluates and recommends approval or disapproval of licensee proposals to modify the design or operating procedures for reactor facilities and applications to construct or operate research or test reactors or critical facilities.

Manages and participates in the review and evaluation of applications for decommissioning, dismantling, or mothballing of operating reactors.

Performs ongoing review of operating experience and performance of assigned operating reactors to determine continued safety of operation and environmental protection and initiates appropriate actions to achieve this end.

Manages and participates in the investigation and evaluation of generic and potentially generic reactor operating problems. Develops and implements interim and final solutions to such problems.

Represents the Commission in scheduling and conducting meetings with applicants, licensees and their representatives, and with representatives of other government offices.

Prepares responses to public and congressional inquiries regarding assigned facilities and NRC activities.

## OCCASIONAL DUTIES

Responsible for coordinating the activities of other Branch members as assigned. Trains new members of the Branch as assigned.

Appears before the Commission's Advisory Committee on Reactor Safeguards to present the NRC staff's evaluation of the safety aspects of the design and operating of specific reactors under review by the Committee and to answer questions relating thereto. Occasionally appears before the Commission for the same purposes.

Participates in public hearings on reactor licensing proceedings as principal staff witness to present technical testimony.

Participates in the development of standards, guides and codes related to the design, construction and operation of nuclear reactor facilities, with primary consideration for the health and safety of the public and protection of the environment.

Manages and participates in the review and evaluation of applications for construction permits and operating licenses for research and test reactors and critical facilities.

Manages and participates in the review and preparation of technical evaluation reports on non-licensed government-owned nuclear reactor facilities.

Evaluates and recommends approval or disapproval of licensee requests for withholding proprietary information from public disclosure.

Occasionally participates as a representative of NRC on various professional or Industrial society committees, subcommittees, panels and task forces.

May recommend special development or research work that the NRC should sponsor at the National Laboratories or elsewhere to enhance the safety and reduce the environmental impact of nuclear reactor facilities.

Serves as a member of inspection teams to investigate incidents and occurrences at reactor facilities.

Provides technical assistance to other parts of the NRC organization, with respect to establishing licensing regulations, standards and guides, and conditions to be included in operating licenses and technical specifications.

Participates, as assigned, in the function of special NRC panels and task forces.

Performs studies and prepares reports on unique and unusual developments relating to operating reactors.

Serves as duty officer during non-work hours during assigned periods to be available at point of contact on urgent matters for the Division of Operating Reactors.

#### ANALYSIS

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#### BASIC SKILLS

550

Thorough knowledge of the principles, theory, and practices in the general field of engineering, with specific knowledge of nuclear and reactor engineering. Competence must be of a degree to enable independent evaluation of the safety significance of various design modifications and operational procedures for reactors.

Thorough knowledge of the interaction of reactor construction and operation with the environment sufficient to initiate and coordinate the evaluation of the environmental consequences of proposed modifications and the results of environmental monitoring and surveillance programs.

Thorough knowledge of regulations, criteria, standards, guides, and NRC policy sufficient to provide guidance to licensees and to independently plan and coordinate staff review of safety and environmental matters related to reactor operation.

Knowledge of design features and operating characteristics of reactors including power, propulsion, production, test, experimental, and research reactors and/or critical facilities sufficient for evaluating the environmental and safety significance of proposed design changes or revisions to operating limitations.

Experience in the field of reactor design, systems analysis, utilization of electronic computers and/or operation of reactors to supplement formal training.

Administrative and management skills are required adequate to coordinate the efforts of numerous staff personnel working in many technical disciplines for assigned projects.

The basic skill requirements are considerable in excess of those normally obtained through formal education at university level (B.S. degree) and are comparable to those achieved from graduate level training coupled with specialized experience in reactor technology and associated subjects obtained through experience in applied engineering.

Knowledge of contractor and field office operations at government-owned reactor installations and applicable NRC directives.

EVALUATION OF GS-1 - 15 POSITIONS

CONTACTS

16

Frequent contacts with other technical personnel in NRC, NRC contractors, the Advisory Committee on Reactor Safeguards, and other governmental agencies as principal staff representative on assigned facilities for the purpose of exchanging technical information and obtaining concurrence in proposed courses of action to resolve technical, legal, and administrative matters.

Frequent contacts with the technical staff and executive of utility companies, reactor vendor and architect-engineer organizations, and universities owning or proposing to build and operate licensed nuclear facilities. Such contacts range in purpose from exchange of information to resolution through the use of logic and persuasion, of complex technical and legal issues related to facility operation.

Frequent contacts at Assistant Director and Division Director level within NRR to present recommended courses of action to resolve specific licensing problems as well as generic issues that could affect public health and safety or affect the human environment.

Occasional contacts with intervenors and their representatives to present NRC technical positions on matters in contention and to negotiate resolution of intervenor concerns.

Occasional presentations to the NRC Commissioners on safety and environmental matters related to assigned facilities.

Occasional appearances before professional and trade organizations to present papers on NRC safety and environmental policies and to discuss technical questions of current interest in that field.

Occasional contacts with members of the press and of the general public to provide factual information related to assigned facilities.

RESPONSIBILITY FOR DECISIONS

230

Supervision Received

Branch Chief.

General Supervision "A".

Administrative guidance provided by CFR Title 10, NRC Manual, DOR Operating Procedures, the Project Manager's Handbook and management memoranda.

Technical guidance provided by publications such as NRC Regulatory Guides, CEQ Guidelines, ASTM specifications, and ASME boiler code.

Independent Action

Approves:

Personal, written testimony for hearings held by the Atomic Safety and Licensing Boards before which he/she represents the NRC on assigned projects.

All licensing action contacts with licensees and applicants on assigned projects.

Recommends:

Approval of review schedules and changes to review schedules related to the staff's review of assigned projects.

Approval or disapproval of all proposed amendments to existing licenses and of construction permits and operating licenses for all test, DOD, research, and other non-power nuclear facilities as assigned.

Resolutions to technical issues which may impact documented, staff technical positions or staff policies.

Acceptance or rejection of new license applications for docketing based on the completeness of the technical information presented by the applicants of non-power nuclear facilities as assigned.

Approval of the issuance of orders, safety evaluation reports, environmental appraisals and supplements thereto related to assigned facilities.

Approval or disapproval of request to withhold from public disclosure information considered by licensees to be proprietary.

Appropriate Commission action with respect to the need to prenotice pending licensing amendment actions on the basis of a determination regarding significant hazards or environmental considerations.

Appropriate Commission action for occurrence at operating facilities that have the potential for adversely affecting the public health and safety.

Special development of research work that the NRC should sponsor to enhance the safety of nuclear reactor facilities.

Appropriate Commission action with respect to need for Negative Declaration or Environmental Impact Statement on pending licensing actions based on environmental impact appraisals.

Responses to correspondence related to assigned facilities and responses for requests for enforcement and to issue show cause orders.

Concurs:

With the accuracy and regulatory relevancy of all requests for all additional information and of all technical positions prepared by the staff technical organizations prior to transmittal licensees for reviews on assigned projects.

With the factual and technical accuracy and completeness of the various sections of safety evaluation reports, environmental appraisals and supplements thereto prepared by the staff technical organizations prior to recommending approval of issuance on assigned projects.

Work Accepted Without Review

Preparation of summaries of meetings with licensees, applicants or potential intervenors.

Conduct of meetings with applicants or potential intervenors.

Oral testimony before Atomic Safety and Licensing Boards.

Oral statements before the Advisory Committee on Reactor Safeguards.

Oral statements before the Commission.

Determination of appropriate amount of coordination necessary and the carrying out of necessary coordination to assure the timely and efficient safety review of assigned projects.

Recommendations to technical organizations as to appropriate resolution of technical issues related to assigned projects where such recommendations are consistent with existing approved staff technical positions or staff policies.

Preparation of the Safety Evaluation Report and supplements to the Safety Evaluation Report by integrating the various inputs from the technical organizations into a consistent and readable document prior to transmittal to higher management levels and the Office of the Executive Legal Director for review or approval.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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5

Normal office conditions.

Occasional field trips, meetings, and inspections require travel by air or rail and may result in appreciable time in travel status.

Approved: April 30, 1980

EVALUATION OF GS-1 - 15 POSITIONS

EFFORT

5

Normal. Increased physical effort may be required while on field trips.

TOTAL SCORE

950

**SENIOR PROJECT MANAGER, GS-0801-15**

**BENCHMARK**

**FUNCTIONAL STATEMENT**

Serves as a senior project manager for the safety review of nuclear power plant construction permit and operating license applications.

**REGULAR DUTIES**

Manages and coordinates the safety review of applications for construction permits and operating licenses.

Normally assigned several projects, two or more which are characterized by one or more of the following difficulties or complexities (or comparable ones):

The power plant, or a major subsystem, thereof, has unique first-of-a-kind features or complex technical problems of a magnitude or number greater than those normally found in typical nuclear power plants.

The proposed site is in a highly populated area where State and local government as well as public concern is expected to be great.

The nature of the reactor causes special public concern and attention; for example, a breeder reactor.

The applicant is new and/or inexperienced with respect to the regulatory process or, on the basis of previous experience, has demonstrated the need for an unusually high degree of guidance and coordination.

Manages and coordinates the efforts of technical staff personnel in achieving a timely and balanced evaluation of safety matters with respect to siting, design, construction, testing, and operation for nuclear power plant construction permit and operating license applications.

Reviews the content of the applicants' Safety Analysis Reports for assigned projects for the purpose of understanding, from the standpoint of radiological safety, the interplay among components, systems, and structures that comprise the proposed nuclear facility.

Manages and coordinates the review and evaluation efforts of each of the specialized safety review branches in the Divisions of System Safety, Site Safety and Environmental Analysis, and Project Management.

Integrates into the review the impact of information obtained from reports prepared as a result of field inspections conducted by the Office of Inspection and Enforcement.

Chairs technical meetings between technical staff members and applicant representatives related to assigned projects.

Serves as principal spokesman for and coordinates staff efforts related to the review of assigned projects by the Advisory Committee on Reactor Safeguards.

Prepares testimony and coordinates that of other staff members with the Office of the Executive Legal Director and serves as the principal staff witness in public hearings on assigned projects before Atomic Safety and Licensing Boards.

Initiates discussions with potential intervenors in hearings related to assigned projects and takes the initiative to arrange meetings with them to discuss the nature of their contentions.

Develops and maintains safety review schedules for assigned projects through coordination with the assigned review branches in the Divisions of Systems Safety, Site Safety and Environmental Analysis and Project Management.

Prepares the staff's Safety Evaluation Report associated with a licensing application, using inputs prepared by the participating review branches in the Divisions of Systems Safety, Site Safety and Environmental Analysis and Project Management.

Resolves inconsistencies and differences of opinion among the staff technical organizations and between the staff and the applicants by the use of discussion and persuasion and knowledge of the technical issues and the applicable NRC requirements.

Provides technical information and guidance on safety-related problems and NRC policies and safety philosophy to organizations planning to design and construct nuclear power plants.

Reviews the recommendations of the participating technical review branches in the Divisions of Systems Safety, Site Safety and Environmental Analysis, and Project Management and the Offices of Inspection and Enforcement in order to make an overall judgment as to the completeness of a tendered application for a construction permit or operating license and recommends acceptance or rejection of the application for docketing and staff review.

Maintains liaison and controls the flow of information between the applicant's representatives and the staff's technical organizations.

#### OCCASIONAL DUTIES

Serves as a member of ad hoc committees and task forces composed of members from other NRC groups for the purpose of performing a specific study or resolving a generic safety issue.

Participates in and makes recommendations with regard to the development of regulations and amendments to regulations.

Participates in the development of standards, guides, and codes related to the siting, design, construction, testing and operation of nuclear power plants by reviewing and commenting on draft documents prepared by the Office of Standards Development.

Performs special licensing evaluations that are not normally a part of the review and evaluation process for a construction permit or an operating license, or are in the nature of a pre-application review; e.g., preparation of "show cause" statements through coordination with the Office of the Executive Legal Director and handling of pre-application submittals of unique facilities.

Prepares responses to principal correspondence, including communications from Congressional sources, government heads, State and local officials, the general public, foreign officials, and various industrial and civic organizations for his assigned projects.

Attends and participates in technical conferences and seminars sponsored by the NRC and/or professional societies and advises the Office of Nuclear Reactor Regulation of those developments in the environmental engineering field which have a bearing on the overall NRC program.

#### ANALYSIS

#### BASIC SKILLS

550

Thorough knowledge of the principles, theories, and practices of nuclear engineering, reactor physics, and systems analysis. Must be capable of reviewing and understanding the efforts of others in highly specialized technical areas, developing comments and questions in regard to design criteria and design features; leading technical discussions, formulating overall technical judgments, and writing engineering reports. Must have a comprehension of all of the important systems, site safety and operational aspects of nuclear power plant design. These disciplines are diverse and include core physics, reactor thermal-hydraulics, materials engineering, structural engineering, containment systems, reactor systems, instrumentation and electrical systems, mechanical engineering, and such site related disciplines as meteorology, geology, seismology, hydrology, soils engineering, and demography.

Administrative and management skills are required adequate to coordinate the efforts of numerous staff personnel working in many technical disciplines for assigned projects.

Must understand and have a working knowledge of the applicable laws, regulations, NRC policies, DPM policies and procedures, guidance and safety philosophy regarding nuclear power plant siting, design, construction testing and operation.

Experience is required in the field of nuclear engineering, including reactor physics, reactor design, systems analysis, and operation of reactors to supplement basic physics and engineering training.

General knowledge is required of research and development work in the field of nuclear power reactor development conducted by other government agencies and industrial organizations.

Ability to interact with technical personnel and present the staff positions, through the knowledge of plant systems, regulatory procedures and safety concerns. Technical debates with applicant personnel on safety issues and regulatory requirements frequently are necessary.

Skill at communicating complex technical information to such diverse groups as staff engineers and management, utility engineers and management and members of the public.

**EVALUATION OF GS-1 - 15 POSITIONS**

**CONTACTS**

170

Continuous contacts with technical and legal personnel at the working, middle-management and top-management levels of the NRC staff, primarily in the Divisions of Systems Safety, Site Safety and Environmental Analysis, and Operating Reactors, the Offices of Inspection and Enforcement, the Executive Legal Director, and Standards Development, as well as with the Advisory Committee on Reactor Safeguards, and other government agencies for the purpose of managing and coordinating the staff review efforts related to assigned projects.

Frequent contacts with working level and top level technical and managerial personnel of utility organizations, nuclear steam supply system manufacturers, and architect-engineering firms. These contacts generally are for the purpose of discussing and resolving technical safety-related issues concerning the siting, design, construction, testing and operation of nuclear power plants but may include discussions of NRC policies, safety philosophy, research programs, specific reactor development projects, and radiation control.

Frequent contacts with intervenors and potential intervenors to arrange meetings with them to discuss the nature of their contentions. The purpose is to provide opportunities for intervenors and potential intervenors to meet with staff personnel on an informal basis to permit their concerns to be communicated to the staff for consideration during the review and evaluation process and to also permit the staff to communicate its activities to the intervenors and potential intervenors.

**RESPONSIBILITY FOR DECISIONS**

170

Supervision Received

Branch Chief.

Division of Project Management.

General Supervision "A".

On technical matters has full authority to act within the framework of the functional assignment.

The administrative guides are appropriate parts of Part 10 of the Code of Federal Regulations, the NRC Management Directives System, guides of the Office of Nuclear Reactor Regulation and Division of Project Management.

Independent Action

Approves:

Personal, written testimony for hearings held by the Atomic Safety and Licensing Boards before which he/she represents the NRC on assigned projects.

Recommends:

Approval of review schedules and changes to review schedules related to the staff's safety review of assigned projects.

Approval of construction permits and operating licenses for assigned projects.

Resolutions to technical issues which may impact documented, staff technical positions or staff policies.

Acceptance or rejection of new applications for docketing based on the completeness of the technical information presented by the applicants.

Approval of the issuance of Safety Evaluation Reports and supplements to Safety Evaluation Reports related to assigned projects.

Concurs:

With the factual and technical accuracy of questions and technical positions prepared by the staff technical organizations prior to transmittal to applicants for assigned projects.

With the factual and technical accuracy of the various sections of Safety Evaluation Reports and supplements to Safety Evaluation Reports prepared by the staff technical organizations prior to recommending approval for issuance for assigned projects.

Work Accepted Without Review

Preparation of minutes of meetings with applicants or potential intervenors.

Conduct of meetings with applicants or potential intervenors.

Oral testimony before Atomic Safety and Licensing Boards.

Oral statements before the Advisory Committee on Reactor Safeguards.

Determination of appropriate amount of coordination necessary and the carrying out of necessary coordination to assure the timely and efficient safety review of assigned projects.

Recommendations to technical organizations as to appropriate resolution of technical issues related to assigned projects where recommendations do not affect documented, staff technical positions or staff policies.

Preparation of the Safety Evaluation Report and supplements to the Safety Evaluation Report by integrating the various inputs from the technical organizations into a consistent and readable document prior to transmittal to higher management levels and the Office of the Executive Legal Director for review and/or approval.

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SUPERVISION EXERCISED

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None.

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WORKING CONDITIONS

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Normal. Occasional field trips, meetings, and inspections require travel by air or rail and may result in appreciable time in travel status.

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EFFORT

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Normal.

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TOTAL SCORE

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960

EVALUATION OF GS-1 - 15 POSITIONS

ATTORNEY, GS-0905-13

BENCHMARK

FUNCTIONAL STATEMENT

Assists the General Counsel in providing legal services in connection with litigation involving the NRC, and with the quasi-judicial duties of the Commission, and in connection with the legislation and regulatory responsibilities of the Commission.

REGULAR DUTIES

Under the supervision of the General Counsel assists in taking appropriate action in Federal Courts by developing strategy, recruiting expert witnesses, drafting pleadings and briefs, preparing testimony and oral argument for litigation in which the NRC is involved, and maintaining liaison with the Department of Justice.

Under the supervision of the General Counsel or Assistant General Counsels, reviews opinions and decisions of the Atomic Safety and Licensing Appeal Board in order to advise supervisors as to the course of action to be recommended to the Commission in performing its quasi-judicial functions. Drafts memorandums including policy recommendations affirming, revising, or modifying decisions of such adjudicatory bodies.

Assists the General Counsel in the review of legislation proposed to the Congress to determine whether the same is consistent with NRC objectives; prepares or assists in the preparation of communications to members of the Congress and Congressional Committees; and provides oral or written responses to members of the NRC staff, other government agencies and to those in the private sector relating to the interpretation of statutes (the Atomic Energy Act of 1954, the National Environmental Policy Act, the Administrative Procedure Act, etc.), and regulations, policies and procedures of the NRC.

Performs such other duties as: representing and acting for the General Counsel in meetings and conferences with other Government agencies, judicial and legislative bodies, advisory boards and committees, in the resolution of legal problems arising from the regulatory functions of the Commission.

ANALYSIS

BASIC SKILLS

450

Requires a law degree from an accredited law school and admission to the bar; a thorough knowledge of basic legal principles; substantial knowledge in the conduct of litigation and trial procedures including the preparation and filing of legal documents and the review of documents for legal sufficiency, and the developing of solutions or recommendations to legal problems in areas for which precedent has not been established, i.e., nuclear waste management, exemptions from nuclear safety requirements, etc.

Requires an ability in handling legal problems including statutory interpretations, knowledge of legal precedents and policies of the Commission, and ability to identify and recommend policy changes that may be required or desirable. Requires knowledge of the overall functions, policies and responsibilities of the Commission.

CONTACTS

135

Continuous contact with the General Counsel, Assistant General Counsels and General Counsel staff members and frequent contact with the Department of Justice and other Government Agencies, and retained private counsel in the course of preparation of the Commission's position in litigated matters.

Occasional contact with the Commissioners in the course of formulating and preparing recommendations in connection with the quasi-judicial functions of the Commission. Frequent contact with NRC staff members to furnish advice and legal counseling in connection with duties concerning legislation assigned by the General Counsel or his Assistants. Occasional contact with persons in and out of Government to represent the General Counsel and to present the views of the Commission.

RESPONSIBILITY FOR DECISIONS

140

Supervision Received

The General Counsel.

Direct Supervision.

Performs duties under the supervision of the General Counsel, and often under the technical guidance of a more senior attorney, with limited opportunity for independent action in NRC prime mission areas.

Independent Action

Makes legal recommendations on matters assigned for review.

Drafts responses for the Commission to make to the Congress on proposed legislation.

Drafts interpretations of the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, the National Environmental Policy Act, and the Administrative Procedures Act.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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Normal.

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**EFFORT**

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5

Normal.

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**TOTAL SCORE**

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7

REGULATIONS ATTORNEY, GS-0905-14

## BENCHMARK

## FUNCTIONAL STATEMENT

Serves as an attorney in the Regulations Division of the Office of the Executive Legal Director and as such assists the Director and Chief Counsel of the Division in advising and rendering legal services to the various NRC offices reporting to the Executive Director for Operations with respect to the preparation and review of NRC regulations, amendments thereto and policy statements; the interpreting of such regulations, policy statements, relevant statutes and related legal authorities for the NRC staff and others; commenting on legislation proposed by others; providing analyses and interpretations of various statutes and legal authorities; rendering legal assistance to the NRC fuel cycle, material licensing and indemnification activities, the NRC states and international programs and the NRC export and import licensing activities; representing the NRC staff before the Commission in connection with export licensing proceedings, as required.

## REGULAR DUTIES

Incumbent has responsibility under the general direction of Director and Chief Counsel of the Division or guidance of a senior attorney for reviewing and preparing effective NRC regulations and policy statements; for preparing NRC staff papers recommending actions for the Commission to take with respect to regulations and policy statements; and appearing before the Commission to support proposed regulations, policy statement or positions.

Reviews for legal implications and legal sufficiency, NRC staff papers, reports, evaluations, letters and other communications prepared by NRC staff and others and makes or recommends revisions when necessary to conform to legal requirements; provides oral or written replies to correspondence from NRC staff, other government agencies, Members of Congress, Congressional Committees, and members of the public regarding the interpretation of statutes, regulations, and NRC policies and procedures.

In rendering legal services to the NRC staff incumbent is required to review technical documents to determine their legal sufficiency; perform original legal research; develop solutions to complex legal problems and render legal opinions and provide legal advice to NRC staff members.

Incumbent's duties involve both advocacy and counseling in connection with such matters as the licensing of fuel cycle facilities and nuclear materials, the export and import licensing of nuclear facilities and materials, and the indemnification of nuclear facilities.

Reviews and assists in the preparation and negotiation of international agreements, interagency agreements and related matters involving the more difficult and complex technical and legal matters.

Incumbent participates in conferences with representatives and officials of Federal, State and foreign governments, international agencies, public interest and industrial groups as a representative of the NRC to solicit their views, to present the views and position of the NRC; makes recommendations to NRC staff as to the position to be taken by NRC and renders legal opinions regarding proposed courses of action.

Provides day-to-day advice to members of the NRC staff with respect to matters involving the regulation and licensing of nuclear facilities, nuclear materials and the indemnification of licensees.

## OCCASIONAL DUTIES

Incumbent may represent the NRC staff or assist the Director and Chief Counsel of the Division or others in representing the NRC staff before the Commission in adjudicatory matters or before other quasi-judicial tribunals dealing with matters of interest to the NRC.

Assists NRC staff members in the preparation for appearance before Congressional Committees.

## ANALYSIS

## BASIC SKILLS

490

Requires graduation from an accredited law school and bar membership. Incumbent must possess a knowledge and understanding of basic legal principles and laws, the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, the Administrative Procedure Act, other statutes, judicial opinions and decisions and applicable Federal and State regulations. Incumbent must have a high order of professional skill and ability to deal with complex legal problems. The incumbent must have had the benefit of several years of experience in handling difficult legal problems, making statutory interpretations, preparing legal documents, reviewing documents for legal sufficiency, and developing sound legal decisions and recommendations. Incumbent

must also have the ability to understand highly complex scientific and technical subject matter and to present it in an understandable fashion to others in the course of performing the specified duties of the position.

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CONTACTS

155

Continuous contact with the Director and Chief Counsel of the Division and Senior Attorney for the purpose of discussing legal opinions and recommendations, reviewing completed work, resolving legal problems and discussing work assignments with members of the NRC staff; frequent contact with the Deputy Executive Legal Director to discuss matters of NRC policy, receive policy guidance and to keep him informed on matters of mutual interest, with members of the NRC staff to provide legal advice and services, with representatives of other government and international agencies, industrial groups and public interest groups to provide or obtain information relating to legal problems arising from NRC regulatory activity or in presenting the views of the Commission; and occasional contact with the Executive Legal Director, the Executive Director for Operations and NRC senior staff members to present, discuss and respond to questions regarding legal aspects of matters of common interest.

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RESPONSIBILITY FOR DECISIONS

195

Supervision Received

Director and Chief Counsel of Regulation Division.

General Supervision "B".

Guides are the Atomic Energy Act of 1974, as amended, the Energy Reorganization Act of 1974, as amended, the Administrative Procedure Act, other statutes, judicial decisions and opinions, rulings and decisions of administrative tribunals and NRC rules, regulations and policies.

Incumbent performs assigned responsibilities with considerable independence and receives general guidance in most instances regarding matters of policy.

Independent Action

Provides legal opinions and memorandums for NRC staff in assigned areas of responsibility.

Prepares interpretations of statutes, regulations, NRC policies and procedures on assigned matters.

Work Accepted Without Review

Legal advice given on a day-to-day basis to NRC staff members.

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SUPERVISION EXERCISED

None.

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WORKING CONDITIONS

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Normal.

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EFFORT

5

Normal.

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TOTAL SCORE

EVALUATION OF GS-1 - 15 POSITIONS

LITIGATION ATTORNEY, GS-0905-14

BENCHMARK

FUNCTIONAL STATEMENT

Serves as litigation attorney in the Hearing Division of the Office of the Executive Legal Director and as such assists an Assistant Chief Hearing Counsel in advising and rendering legal service to the various NRC offices reporting to the Executive Director for Operations on matters involving the licensing of nuclear facilities and related activities, and in representing the NRC staff before Atomic Safety and Licensing Boards, Atomic Safety and Licensing Appeal Boards and the Commission, as required, in connection with hearings on the licensing of nuclear facilities.

REGULAR DUTIES

Incumbent has responsibility under the general direction of an Assistant Chief Hearing Counsel or guidance of a Senior Litigation Attorney for representing the NRC staff in technically or legally difficult and complex hearings before Atomic Safety and Licensing Boards and Atomic Safety and Licensing Appeal Boards. Incumbent may assist the Assistant Chief Hearing Counsel or others in representing the NRC staff before the Commission in connection with the licensing of nuclear facilities.

Incumbent's duties involve both advocacy and counseling in connection with such matters as the licensing of nuclear power reactors, fuel reprocessing facilities, nuclear facility manufacturing licenses and related licensing activities. The incumbent's duties may also involve dealing with sensitive national policy issues which arise during the course of hearings and which call for the immediate exercise of independent professional judgment not subject to review.

With minimal guidance, incumbent prepares and conducts such cases as indicated above including the preparation of motions, briefs, and pre-trial discovery; independently obtains witnesses and develops their testimony; conducts negotiations with intervenors, licensees, applicants, and attorneys, members of the public, and Federal, State and local agencies; conducts direct and cross-examination on highly technical-scientific subjects; and regularly makes unreviewable decisions and oral arguments in the course of hearings on professionally taxing questions without opportunity for preparation. The incumbent also prepares and makes appellate arguments before the Atomic Safety and Licensing Appeal Board and may do so also before the Commission.

When serving as principal attorney in an assigned hearing case, provides leadership and guidance to assigned backup attorneys which include such facets as assignment and/or review of pleadings, testimony, correspondence related to assigned cases, preparation of witnesses, assignment and revision of other written work connected with assigned cases, etc.

In providing legal services to the NRC staff incumbent is required to review technical documents to determine their legal sufficiency; perform difficult original legal research; develop solutions to complex legal problems and provide legal opinions and legal advice to NRC staff members.

Reviews sensitive correspondence and other sensitive written materials prepared by the NRC staff and makes or recommends revisions, when necessary to conform to legal requirements; provides oral or written replies to correspondence from NRC staff, other government agencies, Members of Congress and Congressional Committees, and members of the public regarding the interpretation of statutes, regulations, and NRC policies and procedures.

Provides day-to-day advice to members of the NRC staff with respect to matters involving the licensing and regulation of nuclear facilities and related activities.

OCCASIONAL DUTIES

Serves as backup attorney to other litigation attorneys in the Division to provide training, assistance and to assure continuity in NRC staff legal representation.

Represents the Office of the Executive Legal Director, when so requested, in conferences with the Commission, the NRC General Counsel, industrial groups, officials and representatives of other government agencies; foreign governments and international agencies where their views are solicited and the position of the NRC are presented in areas of mutual interest; evaluates and furnishes opinions concerning the impact of respective positions of other agencies and private industry or the NRC program; and recommends positions to be taken by NRC and the legality of proposed courses of action.

Participates in NRC staff meetings called for the purpose of resolving the more difficult and complex facility licensing and regulation problems.

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ANALYSIS

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BASIC SKILLS

495

Requires graduation from an accredited law school and bar membership. Incumbent must possess a knowledge and understanding of basic legal principles and laws, the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, the National Environmental Policy Act, the Administrative Procedure Act, statutes, judicial opinions and decisions, and applicable Federal and State regulations. Incumbent must have a high order of professional skill and ability to independently prepare and try difficult administrative cases and to argue them before appellate tribunals. The incumbent must have had the benefit of several years of broad experience in handling difficult legal problems, preparing and trying cases, making statutory interpretations, preparing legal documents, reviewing documents for legal sufficiency, developing sound legal decisions and recommendations. The incumbent must also have the ability to understand highly complex scientific and technical subject matter and present it in an understandable fashion to others in the course of hearings and arguments. The ability to effectively persuade people through oral argument is required when the incumbent is operating in an advocacy role during litigation proceedings or negotiating legal questions with intervenors.

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CONTACTS

160

Continuous contact with Senior Litigation Attorneys, the Assistant Chief Hearing Counsel, and members of the NRC staff for the purpose of reporting on the status of case activity and/or the progress of hearings, and the coordinating of the Office of the Executive Legal Director and NRC staff efforts concerning questions and matters inherent in the issues involved; frequent contact with the Chief Hearing Counsel and the Deputy Executive Legal Director to discuss matters of NRC policy, receive policy guidance and to keep them informed on matters of mutual interest with Federal and State agencies and members of the public to provide or obtain information relating to legal problems arising from NRC activities or in presenting the views of the Commission; occasional contact with the Executive Legal Director, the Executive Director for Operations and NRC senior staff members in order to brief them and/or coordinate their efforts or position on matters in litigation.

During litigation proceedings, contacts are frequently with witnesses who have interests at cross purposes with the incumbent. These contacts require persuasiveness for the incumbent to be effective in an advocacy role.

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RESPONSIBILITY FOR DECISIONS

200

Supervision Received

Assistant Chief Hearing Counsel.

General supervision "B".

Guides are the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, the National Environmental Policy Act, the Administrative Procedure Act, other statutes, judicial decisions and opinions, rulings and decisions of administrative tribunals and NRC rules, regulations and policies.

Incumbent performs assigned responsibilities with considerable independence and receives general guidance in most instances regarding matters of policy.

Independent Action

Provides legal advice and opinions to NRC officials orally and in written form.

Prepares cases including briefs, motions, and pre-trial discovery.

Obtains witnesses and develops their testimony.

Reviews technical documents for legal sufficiency.

Decisions Made Without Review

Cross-examination and points made during the course of oral arguments in litigation.

**EVALUATION OF GS-1 - 15 POSITIONS**

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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Normal.

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**EFFORT**

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Normal.

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**TOTAL SCORE**

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855

LITIGATION ATTORNEY, GS-0905-14

## BENCHMARK

## FUNCTIONAL STATEMENT

Serves as litigation attorney in the Rulemaking and Enforcement Division of the Office of the Executive Legal Director and as such assists the Director and Chief Counsel of the Division in advising and rendering legal services to the various NRC offices reporting to the Executive Director for Operations on matters involving rulemaking hearings, enforcement matters and related activities, and in representing the NRC staff before Special Hearing Boards, Atomic Safety and Licensing Boards, Administrative Law Judges, Atomic Safety and Licensing Appeal Boards and the Commission, as required.

## REGULAR DUTIES

Incumbent has responsibility under the general direction of the Director and Chief Counsel of the Division or guidance of a Senior Litigation Attorney for representing the NRC staff in technically or legally difficult and complex hearings before Special Hearing Boards, Atomic Safety and Licensing Boards; Administrative Law Judges, and Atomic Safety and Licensing Appeal Boards. Incumbent may represent the NRC staff, or assist the Director and Chief Counsel of the Division or others in representing the NRC staff before the Commission in connection with rulemaking, enforcement and related matters. Incumbent's duties involve both advocacy and counseling in connection with such matters as generic rulemaking proceedings involving complex technical matters, enforcement of NRC regulations and license conditions involving nuclear facilities, nuclear materials and nuclear safeguards. The incumbent's duties also involve dealing with sensitive policy issues of potential national or even international significance which arise during the course of hearings and which call for the immediate exercise of independent professional judgment not subject to review.

With minimal guidance, incumbent prepares and conducts such cases as indicated above including the preparation of motions, briefs, and pre-trial discovery; independently obtains witnesses and develops their testimony; deals with and negotiates with intervenors, licensees, applicants, and attorneys, members of the public, and Federal, State and local agencies; conducts difficult direct and cross-examination on highly technical-scientific subjects; and regularly makes unreviewable decisions and oral arguments in the course of hearings on professionally taxing questions without opportunity for preparation. The incumbent may also prepare and make appellate arguments before the Atomic Safety and Licensing Appeal Board and may do so also before the Commission.

When serving as principal attorney in an assigned hearing case, provides leadership and guidance to assigned back-up attorneys which include such facets as assignment and/or review of pleadings, testimony, correspondence related to assigned cases, preparation of witnesses, assignment and revision of other written work connected with assigned cases.

In providing legal services to the NRC staff incumbent is required to review technical documents to determine their legal sufficiency; perform difficult original legal research; develop solutions to complex legal problems; and provide legal opinions and legal advice to NRC staff members.

Reviews sensitive correspondence and other sensitive written materials prepared by the NRC staff and makes or recommends revisions, when necessary to conform to legal requirements; provides oral or written replies to correspondence from NRC staff, other government agencies, Members of Congress and Congressional Committees, and members of the public regarding the interpretation of statutes, regulations, and NRC policies and procedures.

Provides day to day advice to senior members of the NRC staff with respect to matters involving rulemaking hearings, enforcement matters and related activities.

## OCCASIONAL DUTIES

Serves as back-up attorney to other litigation attorneys in the Division to provide training, assistance and to assure continuity in NRC staff legal representation.

Represents the Office of the Executive Legal Director when so requested in conferences with the Commission, the NRC General Counsel, industrial groups, officials and representatives of other government agencies, foreign governments and international agencies where their views are solicited and the position of the NRC are presented in areas of mutual interest; evaluates and furnishes opinions concerning the impact of respective positions of other agencies and private industry on the NRC program; and recommends positions to be taken by NRC and the legality of proposed courses of action.

Participates in NRC staff meetings called for the purpose of resolving difficult and complex rulemaking hearing and enforcement problems.

ANALYSIS

BASIC SKILLS

495

Requires graduation from an accredited law school and bar membership. Incumbent must possess a knowledge and understanding of basic legal principles and laws, the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, the National Environmental Policy Act, the Administrative Procedure Act, statutes, judicial opinions and decisions, and applicable Federal and State regulations. Incumbent must have a very high order of professional skill and ability to independently prepare and try difficult administrative cases and to argue them before appellate tribunals. The incumbent must have had the benefit of several years of broad experience in handling complex legal problems, preparing and trying cases, making statutory interpretations, preparing legal documents, reviewing documents for legal sufficiency, developing sound legal decisions and recommendations. The incumbent must also have the ability to understand highly complex scientific and technical subject matter and present it in an understandable fashion to others in the course of hearings and arguments. The ability to effectively persuade people through oral argument is required when the incumbent is operating in an advocacy role during litigation proceedings or negotiating legal questions with intervenors.

CONTACTS

160

Continuous contact with a Senior Litigation Attorney, the Director and Chief Counsel of the Division, and members of the NRC staff for the purpose of reporting on the status of case activity and/or the progress of hearings, and the coordinating of the Office of the Executive Legal Director and NRC staff efforts concerning questions and matters inherent in the issues involved; frequent contact with the Deputy Executive Legal Director to discuss matters of NRC policy, receive policy guidance and to keep him informed on matters of mutual interest, with Federal and State agencies and members of the public to provide or obtain information relating to NRC rule-making or enforcement activity or in presenting the views of the Commission; and occasional contact with the Executive Legal Director, Executive Director for Operations and NRC senior staff members in order to brief them and/or coordinate their efforts or position on matters of common interest and concern.

During litigation proceedings, contacts are frequently with witnesses who have interests at cross purposes with the incumbent. These contacts require persuasiveness for the incumbent to be effective in an advocacy role.

RESPONSIBILITY FOR DECISIONS

200

Supervision Received

Director and Chief Counsel of the Rulemaking and Enforcement Division.

General Supervision "B".

Guides are the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, the Administrative Procedure Act, other statutes, judicial decisions and opinions, rulings and decisions of administrative tribunals and NRC rules, regulations and policies.

Incumbent performs assigned responsibilities with considerable independence and receives only general guidance regarding matters of policy.

Independent Action

Provides legal advice and opinions to NRC officials orally and in written form.

Prepares cases including briefs, motions, and pre-trial discovery.

Obtains witnesses and develops their testimony.

Reviews technical documents for legal sufficiency.

Decisions Made Without Review

Cross-examination and points made during the course of oral arguments in litigation.

**EVALUATION OF GS-1 - 15 POSITIONS**

NRC Appendix 4130-A  
LEG-40

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**SUPERVISION EXERCISED**

None.

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**WORKING CONDITIONS**

5

Normal.

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**EFFORT**

5

Normal.

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**TOTAL SCORE**

865

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EVALUATION OF GS-1 - 15 POSITIONS

LITIGATION ATTORNEY, GS-0905-14

BENCHMARK

FUNCTIONAL STATEMENT

Serves as litigation attorney in the Antitrust Division of the Office of the Executive Legal Director and as such assists the Chief Counsel and Director of the Antitrust Division in advising and rendering legal service to the various NRC offices reporting to the Executive Director for Operations on matters involving the NRC antitrust programs, and in representing the NRC staff before Atomic Safety and Licensing Boards, Atomic Safety and Licensing Appeal Boards and the Commission, as required, in connection with antitrust hearings on license applications for nuclear facilities and related matters.

REGULAR DUTIES

Incumbent has responsibility under the general direction of the Chief Counsel and Director of the Antitrust Division or guidance of a Senior Litigation Attorney for representing the NRC staff in technically or legally difficult and complex antitrust hearings before Atomic Safety and Licensing Boards and Atomic Safety and Licensing Appeal Boards. Incumbent may assist the Chief Antitrust Counsel or others in representing the NRC staff before the Commission in connection with antitrust matters. Incumbent's duties involve both advocacy and counseling in connection with antitrust matters involving the licensing of nuclear power reactors, fuel reprocessing facilities, and related licensing activities subject to NRC antitrust review and action. The incumbent's duties may also involve dealing with sensitive national policy issues which arise during the course of antitrust hearings and which call for the immediate exercise of independent professional judgment not subject to review.

With minimal guidance, incumbent prepares and conducts such cases as indicated above including the preparation of motions, briefs, and pre-trial discovery; independently obtains witnesses and develops their testimony; deals with and negotiates with intervenors, licensees, applicants, and attorneys, members of the public, and Federal, State and local agencies; conducts direct and cross-examination on highly technical subjects; and regularly makes unreviewable decisions and oral arguments in the course of antitrust hearings on professionally taxing questions without opportunity for preparation. The incumbent also prepares and makes appellate arguments before the Atomic Safety and Licensing Appeal Board and may do so also before the Commission.

When serving as principal attorney in an assigned antitrust hearing case, provides leadership and guidance to assigned backup attorneys which include such facets as assigned and/or review of pleadings, testimony, correspondence related to assigned cases, preparation of witnesses, assignment and revision of other written work connected with assigned cases, etc.

In providing legal services to the NRC staff incumbent is required to review technical documents to determine their legal sufficiency; perform difficult original legal research; develop solutions to complex legal problems; and provides legal opinions and legal advice to NRC staff members.

Reviews sensitive correspondence and other sensitive written materials prepared by the NRC staff and makes or recommends revisions, when necessary to conform to legal requirements; provides oral or written replies to correspondence from NRC staff, other government agencies, Members of Congress and Congressional Committees, and members of the public regarding the interpretation of statutes, regulations, and NRC policies and procedures, and may represent the NRC staff, in meetings with the Department of Justice in connection with antitrust matters of mutual interest to the Department and NRC.

Provides day to day advice to members of the NRC staff with respect to matters involving the NRC antitrust activities.

OCCASIONAL DUTIES

Serves as backup attorney to other litigation attorneys in the Division to provide training, assistance and to assure continuity in NRC staff legal representation.

Represents the Office of the Executive Legal Director when so requested in conferences with the Commission, the NRC General Counsel, industrial groups, officials and representatives of other government agencies; foreign governments and international agencies where their views are solicited and the position of the NRC are presented in areas of mutual interest; evaluates and furnishes opinions concerning the impact of respective positions of other agencies and private industry or the NRC program; and recommends positions to be taken by NRC and the legality of proposed courses of action.

Participates in NRC staff meetings called for the purpose of resolving difficult and complex antitrust problems.

ANALYSIS

BASIC SKILLS

495

Requires graduation from an accredited law school and bar membership. Incumbent must possess a knowledge and understanding of basic legal principles and laws, the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, the Administrative Procedure Act, Federal antitrust laws, statutes, judicial opinions and decisions, and applicable Federal and State regulations. Incumbent must have a high order of professional skill and ability to independently prepare and try difficult antitrust cases and to argue them before appellate tribunals. The incumbent must have had the benefit of several years of broad experience in handling complex legal problems, preparing and trying antitrust cases, making statutory interpretations, preparing legal documents, reviewing documents for legal sufficiency, developing sound legal decisions and recommendations. The incumbent must also have the ability to understand highly complex scientific and technical subject matter and present it in an understandable fashion to others in the course of hearings and arguments.

The ability to effectively persuade people through oral argument is required when the incumbent is operating in an advocacy role during litigation proceedings to negotiating legal questions with intervenors.

CONTACTS

160

Continuous contact with a Senior Litigation Attorney, the Chief Antitrust Counsel, and members of the NRC staff for the purpose of reporting on the status of case activity and/or the progress of antitrust hearings, and the coordinating of the Office of the Executive Legal Director and NRC staff efforts concerning questions and matters inherent in the antitrust issues involved; frequent contact with the Deputy Executive Legal Director to discuss matters of NRC policy, receive policy guidance and to keep him informed on matters of mutual interest, Federal and State agencies and members of the public to provide or obtain information relating to antitrust problems arising from NRC activities or in presenting the views of the Commission; and occasional contact with the Executive Legal Director, the Executive Director for Operations and NRC senior staff members in order to brief them and/or coordinate their efforts or position on matters in litigation.

During litigation proceedings, contacts are frequently with witnesses who have interests at cross purposes with the incumbent. These contacts require persuasiveness for the incumbent to be effective in an advocacy role.

RESPONSIBILITY FOR DECISIONS

200

Supervision Received

Chief Counsel and Director of the Antitrust Division.

General Supervision "B".

Guides are the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, the Administrative Procedure Act, Federal antitrust laws, other statutes, judicial decisions and opinions, rulings and decisions of administrative tribunals and NRC rules, regulations and policies.

Incumbent performs assigned responsibilities with considerable independence and receives only general guidance regarding matters of policy.

Independent Action

Provides legal advice and opinions to NRC officials orally and in written form.

Prepares cases including briefs, motions, and pre-trial discovery.

Obtains witnesses and develops their testimony.

Reviews technical documents for legal sufficiency.

Decisions Made Without Review:

Cross-examination and points made during the course of oral arguments in litigation.

**EVALUATION OF GS-1 - 15 POSITIONS**

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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Normal.

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**EFFORT**

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Normal.

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**TOTAL SCORE**

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865

## SENIOR REGULATIONS ATTORNEY, GS-0905-15

## BENCHMARK

## FUNCTIONAL STATEMENT

Serves as senior attorney in the Regulations Division of the Office of the Executive Legal Director and as such assists the Director and Chief Counsel of the Division in advising and providing legal services to the various NRC offices reporting to the Executive Director for Operations with respect to the preparation and review of NRC regulations, amendments thereto and policy statements; the interpreting of such regulations, policy statements, relevant statutes and related legal authorities for the NRC staff and others; commenting on legislation proposed by others; providing analyses and interpretations of various statutes and legal authorities; rendering legal assistance for the NRC fuel cycle, material licensing and indemnification activities, the NRC States and international programs and the NRC export and import licensing activities; representing the NRC staff before the Commission in connection with export licensing proceedings, as required.

## REGULAR DUTIES

Incumbent has full responsibility under the general direction of Director and Chief Counsel of the Division for reviewing and preparing effective NRC regulations and policy statements; for preparing NRC staff papers recommending actions for the Commission to take with respect to regulations and policy statements; and appearing before the Commission to support proposed regulations, policy statements or positions.

Reviews for legal implications and legal sufficiency, NRC staff papers, reports, evaluations, letters and other communications prepared by NRC staff and others and makes or recommends revisions when necessary to conform to legal requirements; provides oral or written replies to correspondence from senior NRC staff, other government agencies, Members of Congress, Congressional Committees, and members of the public regarding the interpretation of statutes, regulations, and NRC policies and procedures.

In rendering legal services to the NRC staff incumbent is required to review technical documents to determine their legal sufficiency; perform difficult original legal research; develop solutions to complex legal problems uncharted by judicial precedent or administrative rulings; and render legal opinions and provide legal advice to senior NRC staff members.

Incumbent's duties involve both advocacy and counseling in connection with such matters as the licensing of fuel cycle facilities and nuclear materials, the export and import licensing of nuclear facilities and materials, and the indemnification of nuclear facilities.

Reviews and assists in the preparation and negotiation of international agreements, interagency agreements and related matters involving the most difficult and complex technical and legal matters.

Incumbent participates in conferences with high level representatives and officials of Federal, State and foreign governments, international agencies, public interest and industrial groups as a representative of the NRC to solicit their views, to present the views and position of the NRC; makes recommendations to senior NRC staff as to the position to be taken by NRC and renders legal opinions regarding proposed courses of action.

Provides day-to-day advice to senior members of the NRC staff with respect to matters involving the regulation and licensing of nuclear facilities, nuclear materials and the indemnification of licensees.

Provides leadership and guidance to attorneys in the Division which include such facets as assignment and/or review of work.

## OCCASIONAL DUTIES

Incumbent may represent the NRC staff or assist the Director and Chief Counsel of the Division or others in representing the NRC staff before the Commission in adjudicatory matters or before other quasi-judicial tribunals dealing with matters of interest to the NRC.

Assists senior NRC staff members in the preparation for appearances before Congressional Committees and appear with them before such Committees.

Participates in NRC senior staff meetings called for the purpose of resolving the most difficult and complex licensing and regulation problems.

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ANALYSIS

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**BASIC SKILLS**

540

Requires graduation from an accredited law school and bar membership. Incumbent must possess a thorough knowledge and understanding of basic legal principles and laws, the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, the Administrative Procedure Act, other statutes, judicial opinions and decisions and applicable Federal and State regulations. Incumbent must have a very high order of professional skill and ability to independently deal with complex legal problems. The incumbent must have had the benefit of several years of broad experience in handling complex legal problems, making statutory interpretations, preparing legal documents, reviewing documents for legal sufficiency, and developing sound legal decisions and recommendations in a field in which little or no legal precedent has been established. Incumbent must also have the ability to understand highly complex scientific and technical subject matter and to present it in an understandable fashion to others in the course of performing the specified duties of the position.

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**CONTACTS**

165

Continuous contact with the Director and Chief Counsel of the Division for the purpose of discussing legal opinions and recommendations, reviewing completed work, resolving legal problems and discussing work assignments with members of the NRC staff; frequent contact with the Executive Legal Director, the Deputy Executive Legal Director to discuss matters of NRC policy, receive policy guidance and to keep them informed on matters of mutual interest, with principal members of the NRC staff to provide legal advice and services, with representatives of other government and international agencies, industrial groups and public interest groups to provide or obtain information relating to legal problems arising from NRC regulatory activity or in presenting the views of the Commission; and occasional contact with the Commission, the Executive Director for Operations and NRC senior staff members to present, discuss and respond to questions regarding legal aspects of matters of common interest.

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**RESPONSIBILITY FOR DECISIONS**

225

Supervision Received

Director and Chief Counsel of Regulation Division.

General Supervision "A".

Guides are the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, the Administrative Procedure Act, other statutes, judicial decisions and opinions, rulings and decisions of administrative tribunals and NRC rules, regulations and policies.

Incumbent performs assigned responsibilities independently with only general guidance provided on policy matters. Normally, opinions and recommendations are accepted with little or no review; however, in matters known to be of particular concern or interest to the Commission, incumbent's recommendations may be subject to review by the Executive Legal Director.

Independent Action

Provides authoritative legal opinions and advice to NRC staff in assigned areas of responsibility.

Prepares new or revised NRC regulations and Commission staff papers recommending courses of action on regulations or policy statements.

Prepares interpretations of statutes, regulations, NRC policies and procedures in response to Congressional or other inquiries from the public which require authoritative interpretations.

Develops solutions to legal problems uncharted by judicial precedent or administrative ruling.

Work Accepted Without Review

Legal advice given on a day-to-day basis that guides NRC staff in the accomplishment of their work.

Review of documents for legal implications and sufficiency that require such a concurrence before their dispatch.

**EVALUATION OF GS-1 - 15 POSITIONS**

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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Normal.

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**EFFORT**

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Normal.

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**TOTAL SCORE**

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940

SENIOR LITIGATION ATTORNEY, GS-0905-15

## BENCHMARK

## FUNCTIONAL STATEMENT

Serves as senior litigation attorney in the Rulemaking and Enforcement Division of the Office of the Executive Legal Director and as such assists the Director and Chief Counsel of the Division in advising and rendering legal services to the various NRC offices reporting to the Executive Director for Operations on matters involving rule-making hearings, enforcement matters and related activities, and in representing the NRC staff before Special Hearing Boards, Atomic Safety and Licensing Boards, Administrative Law Judges, Atomic Safety and Licensing Appeal Boards and the Commission, as required.

## REGULAR DUTIES

Incumbent has full responsibility under the general direction of Director and Chief Counsel of the Division for representing the NRC staff in the most technically or legally difficult and complex rulemaking and enforcement hearings before Special Hearing Boards, Atomic Safety and Licensing Boards, Administrative Law Judges, and Atomic Safety and Licensing Appeal Boards which involve unique technical problems or issues; which are of precedent setting importance to the NRC; and which involve broad public participation or interest. Incumbent may represent the NRC staff, or assist the Director and Chief Counsel of the Division or others in representing the NRC staff before the Commission in connection with rulemaking enforcement and related matters.

Incumbent's duties involve both advocacy and counseling in connection with such matters as generic rulemaking proceedings involving highly complex technical matters, enforcement of NRC regulations and license conditions involving nuclear facilities, nuclear materials and nuclear safeguards. The incumbent's duties also involve dealing with sensitive policy issues of potential national or even international significance which arise during the course of hearings and which call for the immediate exercise of independent professional judgment not subject to review.

Without guidance, incumbent prepares and conducts such cases as indicated above including the preparation of motions, briefs, and pre-trial discovery; independently obtains witnesses and develops their testimony; deals with and negotiates with intervenors, licensees, applicants, and attorneys, members of the public, and Federal, State and local agencies; conducts direct and cross-examination on highly technical-scientific subjects; and regularly makes unreviewable decisions and oral arguments in the course of hearings on professionally taxing questions without opportunity for preparation. The incumbent also prepares and makes appellate arguments before the Atomic Safety and Licensing Appeal Board and may do so also before the Commission.

When serving as principal attorney in an assigned hearing case provides leadership and guidance to assigned backup attorneys which include such facets as assignment and/or review of pleadings, testimony, correspondence related to assigned cases, preparation of witnesses, correspondence related to assigned cases, preparation of witnesses, assignment and revision of other written work connected with assigned cases, etc.

In providing legal services to the NRC staff incumbent is required to review technical documents to determine their legal sufficiency; perform difficult original legal research; develop solutions to complex legal problems uncharted by judicial precedent or administrative rulings; and provide legal opinions and legal advice to senior NRC staff members.

Reviews sensitive correspondence and other sensitive written materials prepared by the NRC staff and makes or recommends revisions, when necessary to conform to legal requirements; provides oral or written replies to correspondence from senior NRC staff, other government agencies, Members of Congress and Congressional Committees, and members of the public regarding the interpretation of statutes, regulations, and NRC policies and procedures.

Provides day-to-day advice to senior members of the NRC staff with respect to matters involving rulemaking hearings, enforcement matters and related activities.

## OCCASIONAL DUTIES

Serves as backup attorney to other litigation attorneys in the Division to provide training, assistance and to assure continuity in NRC staff legal representation.

Represents the Office of the Executive Legal Director when so requested in conferences with the Commission, the NRC General Counsel, industrial groups, officials and representatives of other government agencies; foreign governments and international agencies where their views are solicited and the positions of the NRC are presented in areas of mutual interest; evaluates and furnishes opinions concerning the impact of respective positions of other agencies and private industry on the NRC program; and recommends positions to be taken by NRC and the legality of proposed courses of action.

Participates in NRC senior staff meetings called for the purpose of resolving the most difficult and complex rule making hearing and enforcement problems.

ANALYSIS

BASIC SKILLS

545

Requires graduation from an accredited law school and bar membership. Incumbent must possess a thorough knowledge and understanding of basic legal principles and laws, the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, the National Environmental Policy Act, the Administrative Procedure Act, statutes, judicial opinions and decisions, and applicable Federal and State regulations. Incumbent must have a very high order of professional skill and ability to independently prepare and try complex administrative cases and to argue them before appellate tribunals. The incumbent must have had the benefit of several years of broad experience in handling complex legal problems, preparing and trying cases, making statutory interpretations, preparing legal documents, reviewing documents for legal sufficiency, developing sound legal decisions and recommendations in a field in which little or no legal precedent has been established. The incumbent must also have the ability to understand highly complex scientific and technical subject matter and present it in an understandable fashion to others in the course of hearings and arguments.

The ability to effectively persuade people through oral argument is required when the incumbent is operating in an advocacy role during litigation proceedings or negotiating legal questions with intervenors.

CONTACTS

170

Continuous contact with the Director and Chief Counsel of the Division, the Deputy Executive Legal Director and members of the NRC staff for the purpose of reporting on the status of case activity and/or the progress of hearings, and the coordinating of the Office of the Executive Legal Director and NRC staff efforts concerning questions and matters inherent in the issues involved; frequent contact with the Executive Legal Director to discuss matters of NRC policy, receive policy guidance and to keep him informed on matters of mutual interest with Federal and State agencies and members of industrial or public interest groups to provide or obtain information relating to NRC rulemaking or enforcement activity or in presenting the views of the Commission; an occasional contact with the Executive Director for Operations and NRC senior staff members in order to brief them and/or coordinate their efforts or position on matters of common interest and concern.

During litigation proceedings, contacts are frequently with witnesses who have interests at cross purposes with the incumbent. These contacts require the highest degree of persuasiveness in order for the incumbent to be effective in an advocacy role.

Negotiates legal questions with intervenors who frequently are at cross purposes with the incumbent.

RESPONSIBILITY FOR DECISIONS

230

Supervision Received

Director and Chief Counsel of the Rulemaking and Enforcement Division.

General Supervision "A".

Guides are the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, the Administrative Procedure Act, other statutes, judicial decisions and opinions, rulings and decisions of administrative tribunals and NRC rules, regulations and policies.

Incumbent performs assigned responsibilities independently with only general guidance provided on policy matters. Normally, opinions and recommendations are accepted with little or no review; however, in matters known to be of particular concern or interest to the Commission, incumbent's recommendations may be subject to review by the Executive Legal Director.

Independent Action

Provides authoritative legal advice and opinions to NRC officials on the most legally difficult and complex matters.

Prepares cases including briefs, motions, and pre-trial discovery. Obtains witnesses and develops their testimony.

**EVALUATION OF GS-1 - 15 POSITIONS**

Determines the legal sufficiency when reviewing technical documents.

Develops solutions to legal problems uncharted by judicial precedent or administrative rulings.

Recommends:

Changes in legal procedures requiring approval of higher authority.

Legal courses of action when such alternatives are available for use in assigned matters.

Decisions Made Without Review

Cross examination and points made during the course of oral arguments in litigation.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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Normal.

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**EFFORT**

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Normal.

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**TOTAL SCORE**

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955

SENIOR LITIGATION ATTORNEY, GS-0905-15

## BENCHMARK

## FUNCTIONAL STATEMENT

Serves as senior litigation attorney in the Antitrust Division of the Office of the Executive Legal Director and as such assists the Chief Counsel and Director of the Antitrust Division in advising and rendering legal service to the various NRC offices reporting to the Executive Director for Operations on matters involving the NRC anti-trust program, and in representing the NRC staff before Atomic Safety and Licensing Boards, Atomic Safety and Licensing Appeal Boards and the Commission, as required, in connection with antitrust hearings on license applications for nuclear facilities and related matters.

## REGULAR DUTIES

Incumbent has full responsibility under the general direction of the Chief Counsel and Director of the Antitrust Division for representing the NRC staff in the most technically or legally difficult and complex antitrust hearings before Atomic Safety and Licensing Boards and Atomic Safety and Licensing Appeal Boards which involve applications for nuclear facility licenses that pose unique antitrust problems; which involve multiparty applicants and intervenors; and which are of precedent setting importance to the NRC. Incumbent may represent the NRC staff, or assist the Chief Antitrust Counsel or others in representing the NRC staff before the Commission in connection with antitrust matters. Incumbent's duties involve both advocacy and counseling in connection with antitrust matters involving the licensing of nuclear power reactors, fuel reprocessing facilities, and related licensing activities subject to NRC antitrust review and action. The incumbent's duties also involve dealing with sensitive national policy issues which arise during the course of antitrust hearings and which call for the immediate exercise of independent professional judgment not subject to review.

Without guidance, incumbent prepares and conducts such cases as indicated above including the preparation of motions, briefs, and pre-trial discovery; independently obtains witnesses and develops their testimony; deals with and negotiates with intervenors, licensees, applicants, and attorneys, members of the public, and Federal, State and local agencies; conducts direct and cross-examination on highly technical subjects; and regularly makes unreviewable decisions and oral arguments in the course of antitrust hearings on professionally taxing questions without opportunity for preparation. The incumbent also prepares and makes appellate arguments before the Atomic Safety and Licensing Appeal Board and may do so also before the Commission.

When serving as principal attorney in an assigned antitrust hearing case, provides leadership and guidance to assigned backup attorneys which include such facets as assignment and/or review of pleadings, testimony, correspondence related to assigned cases, preparation of witnesses, assignment and revision of other written work connected with assigned cases, etc.

In providing legal services to the NRC staff incumbent is required to review technical documents to determine their legal sufficiency; perform difficult original legal research; develop solutions to complex legal problems uncharted by judicial precedent or administrative rulings; and provides legal opinions and legal advice to senior NRC staff members.

Reviews sensitive correspondence and other sensitive written materials prepared by the NRC staff and makes or recommends revisions, when necessary to conform to legal requirements; provides oral or written replies to correspondence from senior NRC staff, other government agencies, Members of Congress and Congressional Committees, and members of the public regarding the interpretation of statutes, regulations, and NRC policies and procedures; and represents the NRC staff before the Department of Justice in connection with antitrust matters which are of major interest and concern to the Department and to NRC.

Provides day-to-day advice to senior members of the NRC staff with respect to matters involving the NRC antitrust activities.

## OCCASIONAL DUTIES

Serves as backup attorney to other litigation attorneys in the Division to provide training, assistance and to assure continuity in NRC staff legal representation.

Represents the Office of the Executive Legal Director, when so requested, in conferences with the Commission, the NRC General Counsel, industrial groups, officials and representatives of other government agencies, foreign governments and international agencies where their views are solicited and the positions of the NRC are presented in areas of mutual interest; evaluates and furnishes opinions concerning the impact of respective positions of other agencies and private industry on the NRC program; and recommends positions to be taken by NRC as to the legality of proposed courses of action.

Participates in NRC senior staff meetings called for the purpose of resolving the most difficult and complex antitrust problems.

ANALYSIS

BASIC SKILLS

545

Requires graduation from an accredited law school and bar membership. Incumbent must possess a thorough knowledge and understanding of basic legal principles and laws, the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, the Administrative Procedure Act, Federal antitrust laws, statutes, judicial opinions and decisions, and applicable Federal and State regulations. Incumbent must have a very high order of professional skill and ability to independently prepare and try complex antitrust cases and to argue them before appellate tribunals. The incumbent must have had the benefit of several years of broad experience in handling complex legal problems, preparing and trying antitrust cases, making statutory interpretations, preparing legal documents, reviewing documents for legal sufficiency, developing sound legal decisions and recommendations in a field in which little or no legal precedent has been established. The incumbent must also have the ability to understand complex scientific and technical subject matter and present it in an understandable fashion to others in the course of hearings and arguments.

The ability to effectively persuade people through oral argument is required when the incumbent is operating in an advocacy role during litigation proceedings or negotiating legal questions with intervenors.

CONTACTS

170

Continuous contact with the Chief Antitrust Counsel, the Deputy Executive Legal Director and members of the NRC staff for the purpose of reporting on the status of case activity and/or the progress of antitrust hearings, and the coordinating of the Office of the Executive Legal Director and NRC staff efforts concerning questions and matters inherent in the antitrust issues involved; frequent contact with the Executive Legal Director to discuss matters of NRC antitrust policy, receive policy guidance, and to keep him informed on matters of mutual interest with Federal and State agencies and members of the public to provide or obtain information relating to antitrust problems arising from NRC activities or in presenting the views of the Commission; and occasional contact with the Executive Director for Operations and NRC senior staff members in order to brief them and/or coordinate their efforts or position on matters in litigation.

During litigation proceedings, contacts are frequently with witnesses who have interests at cross purposes with the incumbent. These contacts require the highest degree of persuasiveness in order for the incumbent to be effective in an advocacy role.

Negotiates legal questions with intervenors who frequently are at cross purposes with the incumbent.

RESPONSIBILITY FOR DECISIONS

230

Supervision Received

Chief Counsel and Director of the Antitrust Division.

General Supervision "A".

Guides are the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, the Administrative Procedure Act, the Federal antitrust laws, other statutes, judicial decisions and opinions, rulings and decisions of administrative tribunals and NRC rules, regulations and policies.

Incumbent performs assigned responsibilities independently with only general guidance provided on policy matters. Normally, opinions and recommendations are accepted with little or no review; however, in matters known to be of particular concern or interest to the Commission, incumbent's recommendations may be subject to review by the Executive Legal Director.

Independent Action

Provides authoritative legal advice and opinions to NRC officials on the most legally difficult and complex matters.

Prepares cases including briefs, motions, and pre-trial discovery.

Obtains witnesses and develops their testimony.

Determines the legal sufficiency when reviewing technical documents.

**EVALUATION OF GS-1 - 15 POSITIONS**

Develops solutions to legal problems uncharted by judicial precedent or administrative rulings.

Recommends:

Changes in legal procedures requiring approval of higher authority.

Legal courses of action when such alternatives are available for use in assigned matters.

**Decisions Made Without Review**

Cross-examination and points made during the course of oral arguments in litigation.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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5

Normal.

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**EFFORT**

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5

Normal.

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**TOTAL SCORE**

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EVALUATION OF GS-1 - 15 POSITIONS

SENIOR LITIGATION ATTORNEY, GS-0905-15

BENCHMARK

FUNCTIONAL STATEMENT

Serves as senior litigation attorney in the Hearing Division of the Office of the Executive Legal Director and as such assists an Assistant Chief Hearing Counsel of the Division in advising and rendering legal services to the various NRC offices reporting to the Executive Director for Operations on matters involving the licensing of nuclear facilities and related activities, and in representing the NRC staff before Atomic Safety and Licensing Boards, Atomic Safety and Licensing Appeal Boards and the Commission, as required, in connection with hearings on the licensing of nuclear facilities.

REGULAR DUTIES

Incumbent has full responsibility under the general direction of an Assistant Chief Hearing Counsel for representing the NRC staff in the most technically or legally difficult and complex hearings before Atomic Safety and Licensing Boards and Atomic Safety and Licensing Appeal Boards involving a nuclear facility whose design or features are unique; and/or whose site has unusual or exceptionally difficult problem posing aspects; and/or where public reception of the facility is intense or extensive. Incumbent may represent the NRC staff, or assist the Assistant Chief Hearing Counsel or others in representing the NRC staff before the Commission in connection with the licensing of nuclear facilities.

Incumbent's duties involve both advocacy and counseling in connection with such matters as the licensing of nuclear power reactors, fuel reprocessing facilities, nuclear facility manufacturing licenses and related licensing activities. The incumbent's duties also involve dealing with sensitive policy issues of potential national or even international significance which arise during the course of hearings and which call for the immediate exercise of independent professional judgment not subject to review.

Without guidance, incumbent prepares and conducts such cases as indicated above including the preparation of motions, briefs, and pre-trial discovery; independently obtains witnesses and develops their testimony; conducts negotiations with intervenors, licensees, applicants, and attorneys, members of the public, and Federal, State and local agencies; conducts direct and cross-examination on highly technical-scientific subjects; and regularly makes unreviewable decisions and oral arguments in the course of hearings on professionally taxing questions without opportunity for preparation. The incumbent also prepares and makes appellate arguments before the Atomic Safety and Licensing Appeal Board and may do so also before the Commission.

When serving as principal attorney in an assigned hearing case, provides leadership and guidance to assigned back-up attorneys which include such facets as assignment and/or review of pleadings, testimony, correspondence related to assigned cases, preparation of witnesses, assignment and revision of other written work connected with assigned cases, etc.

In providing legal services to the NRC staff incumbent is required to review technical documents to determine their legal sufficiency; perform difficult original legal research; develop solutions to complex legal problems uncharted by judicial precedent or administrative rulings; and provide legal opinions and legal advice to senior NRC staff members.

Reviews sensitive correspondence and other sensitive written materials prepared by the NRC staff and makes or recommends revisions when necessary to conform to legal requirements; provides oral or written replies to correspondence from senior NRC staff, other government agencies, members of Congress and Congressional Committees, and members of the public regarding the interpretation of statutes, regulations, and NRC policies and procedures.

Provides day-to-day advice to senior members of the NRC staff with respect to matters involving the licensing and regulation of nuclear facilities and related activities.

OCCASIONAL DUTIES

Serves as back-up attorney to other litigation attorneys in the Division to provide training, assistance and to assure continuity in NRC staff legal representation.

Represents the Office of Executive Legal Director when so requested, in conferences with the Commission, the NRC General Counsel, industrial groups, officials and representatives of other government agencies; foreign governments and international agencies where their views are solicited and the positions of the NRC are presented in areas of mutual interest; evaluates and furnishes opinions concerning the impact of respective positions of other agencies and private industry or the NRC program; and recommends positions to be taken by NRC and the legality of proposed courses of action.

Participates in NRC senior staff meetings called for the purpose of resolving the most difficult and complex facility licensing and regulation problems.

ANALYSIS

BASIC SKILLS

545

Requires graduation from an accredited law school and bar membership. Incumbent must possess a thorough knowledge and understanding of basic legal principles and laws, the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, the National Environmental Policy Act, the Administrative Procedure Act, statutes, judicial opinions and decisions, and applicable Federal and State regulations. Incumbent must have a very high order of professional skill and ability to independently prepare and try complex administrative cases and to argue them before appellate tribunals. The incumbent must have had the benefit of several years of broad experience in handling complex legal problems, preparing and trying cases, making statutory interpretations, preparing legal documents, reviewing documents for legal sufficiency, developing sound legal decisions and recommendations in a field in which little or no legal precedent has been established. The incumbent must also have the ability to understand high complex scientific and technical subject matter and present it in an understandable fashion to others in the course of hearings and arguments.

The ability to effectively persuade people through oral argument is required when the incumbent is operating in an advocacy role during litigation proceedings or negotiating legal questions with intervenors.

CONTACTS

170

Continuous contact with the Assistant Chief Hearing Counsel, the Chief Hearing Counsel, the Deputy Executive Legal Director and principal members of the NRC staff for the purpose of reporting on the status of case activity and/or the progress of hearings, and the coordinating of the Office of the Executive Legal Director and NRC staff efforts concerning questions and matters inherent in the issues involved; frequent contact with the Executive Legal Director to discuss matters of NRC policy, receive policy guidance and to keep him informed on matters of mutual interest, with Federal and State agencies and members of industrial or public interest groups to provide or obtain information relating to legal problems arising from NRC activities or in presenting the view of the Commission; and occasional contact with the Executive Director for Operations and NRC senior staff members in order to brief them and/or coordinate their efforts or position on matters in litigation.

During litigation proceedings, contacts are frequently with witnesses who have interests at cross purposes with the incumbent. These contacts require the highest degree of persuasiveness in order for the incumbent to be effective in an advocacy role.

Negotiates legal questions with intervenors who frequently are at cross purposes with the incumbent.

RESPONSIBILITY FOR DECISIONS

230

Supervision Received

Assistant Chief Hearing Counsel.

General Supervision "A".

Guides are the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, the National Environmental Policy Act, the Administrative Procedure Act, other statutes, judicial decisions and opinions, rulings and decisions of administrative tribunals and NRC rules, regulations and policies.

Incumbent performs assigned responsibilities independently with only general guidance provided on policy matters. Normally, opinions and recommendations are accepted with little or no review; however, in matters known to be of particular concern or interest to the Commission, incumbent's recommendations may be subject to review by the Executive Legal Director.

Independent Action

Provides authoritative legal advice and opinions to NRC officials on the most legally difficult and complex matters.

Prepares cases including briefs, motions, and pre-trial discovery.

Obtains witnesses and develops their testimony.

**EVALUATION OF GS-1 - 15 POSITIONS**

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Determines the legal sufficiency when reviewing technical documents.

Develops solutions to legal problems uncharted by judicial precedent or administrative rulings.

Recommends:

Changes in legal procedures requiring approval of higher authority.

Legal courses of action when such alternatives are available for use in assigned matters.

**Decisions Made Without Review**

Cross examination and points made during the course of oral arguments in litigation.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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Normal.

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**EFFORT**

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Normal.

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**TOTAL SCORE**

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955

EVALUATION OF GS-1 - 15 POSITIONS

OPERATIONS RESEARCH ANALYST, GS-1515-13

BENCHMARK

FUNCTIONAL STATEMENT

Designs and performs studies on current NRC Safeguards Regulations, vulnerabilities of established and potential safeguards systems, threats to established and proposed safeguards systems and alternate systems options. Uses latest operations analysis techniques to construct models for use in the studies and translates the models to computer programs. Conducts sensitivity analysis and establishes cost/benefit baselines. Determines performance requirements based on study results. Integrates study results into a coherent set of recommendations to improve safeguard regulations, guidelines, criteria and procedures.

REGULAR DUTIES

Defines and designs studies required to achieve safeguards system objectives. Determines the best operations research techniques to be used on each study and insures that each study is compatible with overall program goals. Examples of studies include an independent study to identify the role of material accountability within the total nuclear safeguards program and an analysis of portal monitoring as a means to detect diversion of strategic amounts of special nuclear material.

Assures that required models and computer programs are developed to carry out study efforts. Reviews the running, debugging and improvement of the computer programs.

Conducts sensitivity analyses of alternatives generated by studies.

Derives performance requirements of new proposed systems from results of studies. Also compares and integrates recommendations from various studies.

Identifies and recommends research and development requirements for safeguards systems improvements.

Maintains awareness and proficiency in current and developing techniques and theories of operations research.

ANALYSIS

BASIC SKILLS

475

Professional education and experience equivalent to beyond a bachelor's degree plus several additional years of training and experience in fields related to operations research.

Broad knowledge of the techniques associated with systems and operations research analysis including queuing theory, renewal theory, linear and non-linear programming techniques, fault-free analyses, probability theory, and statistics, classical as well as Bayesian.

The ability to identify needed study efforts and to select the correct operations research techniques and to construct and program models.

Ability to debug and assure that needed models and computer programs are prepared and to interpret the results.

Sufficient written and oral communications skill to present technical results in reports and meetings with technical people.

Thorough knowledge of safeguards issues, problems, policies, practices and procedures, as well as overall knowledge of NRC's programs and the regulatory process.

CONTACTS

125

Frequent contact with the scientific and technical personnel on the NRC staff to obtain data and information on which to base studies and to present study findings and recommendations with proposal reasons for taking new actions or revising existing programs. Frequent contact with the technical personnel on licensee staffs and national laboratories to obtain data and to discuss NRC programs. These contacts are for the purpose of obtaining information on which to base areas of study and to select the most promising areas of study.

Frequent contact with technical personnel and senior level management in contract study organizations that provide contract support to NRC in order to transmit instructions and coordinate study efforts being carried out to support the incumbent's areas of investigation.

Occasional contact with the Commissioners' staffs to explain the ongoing studies and results.

Occasional contact with academic and technical personnel in study organizations and associations to maintain proficiency in developing professional areas.

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**RESPONSIBILITY FOR DECISIONS**

160

Supervision Received

Section Leader, Test and Evaluation Branch.

General Supervision "A".

Guidelines are NRC regulations and technical reports and journals.

Independent Action

Proposes subject and coverage of studies to be undertaken and selects operational analysis techniques to be used.

Determines questions to be postulated, means for exploring questions, conclusions, findings and recommendations without reference to supervisor.

Reviews the operation, improvement and debugging of computer programs associated with the studies.

Performs sensitivity analysis of alternative recommendations generated by studies.

Identifies and recommends research and development requirements for safeguards systems.

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**SUPERVISION EXERCISED**

None.

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**WORKING CONDITIONS**

5

Normal office conditions.

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**EFFORT**

5

Normal.

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**TOTAL SCORE**

770

EVALUATION OF GS-1 - 15 POSITIONS

RISK ASSESSMENT ANALYST, GS-1515-14

BENCHMARK

FUNCTIONAL STATEMENT

Undertakes major probability analysis assignments for the assessment of risks to public health, safety, or environment associated with a significant complex of the nuclear reactor safety system. Risk assessments are undertaken to evaluate in quantitative terms the relative safety of systems, equipment and procedures operative in nuclear reactors to provide guidance to NRC Commissioners and staff in licensing decisions and for effective utilization of resources. The assignments have these typical significant characteristics:

- a. The assignments are managerially and technically very difficult and complex in that they contain crucial, controversial aspects which are without risk assessment precedent and represent serious uncertainties in essential knowledge.
- b. The assignments relate to controversial issues for which sophisticated assessments of risks are of critical importance and urgency to the NRC licensing program, of strong public interest, and of particular value to top level NRC professionals whose determinations and judgments require the use of valid risk assessment models and parameters.
- c. The assignments are sufficiently complex and urgent to warrant contracting with a research laboratory or laboratories somewhat knowledgeable in risk assessment studies of nuclear reactors but due to the uniqueness of the assignment there is need for a high degree of project management and risk assessment expertise to effectively control the contract, to provide professional insight into approaches and controversies, to integrate findings and considerations into the NRC licensing needs as well as to monitor milestones and expectations.
- d. Many assignments are sufficiently larger and urgent as to warrant subdivision into phases and tasks for accomplishment of participating NRC professionals serving as team members of the incumbent as project leader.
- e. As required serves as team leader in projects requiring the assignment of professional staff as team members. Reviews assignments, emphasizes priorities, evaluates performance, coordinates findings and recommendations in a consolidated report.

REGULAR DUTIES

As Risk Assessment Engineer, incumbent carries out technical and administrative duties as they concern quantitative analysis of reactor safety and initiates appropriate actions to obtain solutions to problems which arise in fulfilling assignments.

Designs and develops risk analysis studies of reactor safety facilities appropriate to the specifics of assigned projects.

Designs and develops performance criteria for national laboratories and contractors to be used in performing risk analysis studies; prepares scope of work, milestones, tasks, factors to be considered, reporting requirements.

Reviews and evaluates contract proposals and either approves, amends, or disapproves the proposed approach based on technical feasibility or applicability to the overall requirements and consistency with the current status of the art.

During the course of a contract, as the technical representative for the contract, works closely with contract laboratory officials to ensure continuity of purpose, initiation of new approaches as needed, energetic pursuit, and maintenance of a prevailing attitude of professionalism towards a wholly rational, defensible set of observations, findings, and recommendations.

Reviews periodic and final reports submitted by contract laboratories, and recommends how best to implement these concepts that appear promising for meeting current needs and anticipated needs for quantitative risk assessment methods.

Keeps abreast of current and planned research work in risk assessment nationally and internationally by attending and participating, often as a panel member, in professional seminars, conferences, and workshops as well as keeping current with publications in the field of risk assessment and nuclear reactor safety.

Evaluates contractor performance in terms of adequacy and quality of work, costs, and meeting schedules in matters pertaining to fault tree analysis. Makes recommendations regarding redirection of efforts based on changing program requirements, potential application of results, or contractor performance.

Prepares reports, as required for effective presentation of the Branch's evaluations, to the Office Directors, and the Commissioners.

#### OCCASIONAL DUTIES

Prepares material pertaining to Branch functions for use of office Director or Commissioners when testifying before Congressional Committees, Bureau of Budget, etc.

Prepares for publications or oral delivery at technical meetings, articles on quantitative analysis of safety methods.

Serves as editorial assistant to various official journals, special reports, and other published technical activities.

Serves as liaison for Director on various technical advisory committees.

Serves as technical advisor to contractor selection boards.

Assists various educational institutions and groups in training and in educational programs as they relate to reactor safety methods evaluation.

#### ANALYSIS

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##### BASIC SKILLS

505

Broad and thorough knowledge and experience of theoretical and engineering analysis of nuclear systems. This knowledge must be sufficient to permit analysis of programs encompassing unique studies and projects in uncharted fields which will substantially advance knowledge in the nuclear safety field.

Sound knowledge in other scientific and engineering disciplines related to nuclear safety such as metallurgy, fluid hydraulics, chemistry, neutronics and numerical analyses to permit authoritative judgments on concepts and experiments which will affect program direction and the use of complex concepts in connection with the interpretation of nuclear reactor accidents.

Knowledge of reactor design and engineering practices and of research and development work being done by government or private laboratories to effectively evaluate the feasibility of recommended programs, and to insure that the efforts of other agencies and laboratories are not being duplicated.

Specialized experience and training in risk assessment methodology, i.e., use of reliability type data for the quantitative analysis of event trees and fault trees including common cause failures.

Skill in written and oral communication sufficient for effective presentation of complex technical problems in a form for top level policy decisions.

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##### CONTACTS

135

Daily contact with Branch Chiefs in the Office of Nuclear Regulatory Research and with senior professional personnel in other NRC Divisions to explain assigned research projects, to obtain and give technical information, to obtain cooperation on joint efforts, and to obtain agreement on research objectives.

Frequent contacts with top and middle scientific management personnel of operations offices, national laboratories, universities and industrial contractors. These contacts are for the purpose of reporting progress of work, evaluation of related programs, providing technical advice and assistance, convincing others of the need for changes in research directions and coordinating the application of program results with codes, standards, analyses methods, and regulatory criteria.

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##### RESPONSIBILITY FOR DECISIONS

175

###### Supervision Received

Chief, Probabilistic Analysis Branch.

General Supervision "A".

EVALUATION OF GS-1 - 15 POSITIONS

Confers with Branch Chief on milestones, priorities, utilization of resources, and resolution of unique problems and approaches in risk assessment.

Guidelines are overall NRC and Office policies as defined in the organizational responsibilities of the Office of Nuclear Regulatory Research.

Independent Action

Draws independent conclusions and makes recommendations regarding system analysis. Recommends:

- a. Reliability models for systems analysis of reactors.
- b. Programming to meet objectives of Probabilistic Analysis Staff.
- c. New areas for risk assessment research which might be pursued of benefit to the program particularly for overcoming serious deficiencies in current state of knowledge.

Prepares recommendations, as needed.

Develops new methods, as needed.

Decisions Made Without Review

Resolves day-to-day systems analysis problems concerning all aspects of the program.

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SUPERVISION EXERCISED

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None.

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WORKING CONDITIONS

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Normal office conditions.

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EFFORT

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5

Normal administrative effort.

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TOTAL SCORE

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825

## HEALTH PHYSICIST, GS-1306-9

## BENCHMARK

## FUNCTIONAL STATEMENT

Analyzes from the radiological safety and/or environmental protection standpoint specific portions of license applications and environmental reports for assigned fuel cycle plants to assess the adequacy of the applicant's protection program.

## REGULAR DUTIES

Reviews assigned portions of license applications and environmental reports from a radiological safety standpoint. Portions cover such matters as the adequacy of the proposed site, the design bases of the principal structures, systems and components of the plant, and the applicant's procedures to protect environmental values and the health and safety of the general public and plant employees. Portions assigned are the less complex, conventional structures, facilities, problems or issues.

Confers with technical representatives of organizations proposing new or modified facilities to obtain factual information to resolve questions of doubt concerning details of an application which have a bearing on safety and environmental protection matters.

Assists senior technical personnel in the evaluation of results of research and development work in the field of radiological safety conducted by other Government agencies or under contract to NRC for their significance to nuclear safety and environmental protection. Portions of studies assigned to the incumbent involve compilation and summarization of quantitative data, using standard, accepted methods.

## BASIC SKILLS

290

Knowledge of standard principles, theory, and practices in the field of radiological safety with some knowledge of their application to fuel cycle plants. Such knowledge is normally gained through a B.S. in Health Physics supplemented by some experience. Competence must be sufficient to analyze conventional features of plant systems related to radiological safety and to assess radiological doses resulting from plant effluents.

Knowledge of standard methods for measurement and reduction of radioactive effluents and for calculating radiation doses resulting from plant effluents.

Sufficient familiarity with standard computation methods in radiological safety problems to aid the analysis and evaluation of portions of research proposals.

## CONTACTS

75

As directed and approved by supervisor, makes occasional contact with middle management and technical personnel of applicants for licenses, NRC contractors, industrial, NRC, and other governmental agencies to discuss technical matters relating to the hazards inherent in the design, operation, and site location of proposed new facilities or significant modifications of existing facilities. The purpose of most contacts is the exchange of technical information or reconciling straightforward factual issues.

## RESPONSIBILITY FOR DECISIONS

95

Supervision Received

Section Leader, Fuel Processing and Fabrication Branch

Direct supervision.

Receives direct supervision on all work, except for routine and repetitive duties. Recommendations for acceptance or rejection of applications are reviewed in detail.

Also receives technical and operational guidance from senior members of the section when assisting them.

Administrative guides are NRC Directives System and NRC policies found in 10 CFR. Operational guides are in the form of memoranda or oral direction.

Independent Action

Incumbent is responsible for analyzing conventional radiological safety matters to point up problems associated with the hazards involved in specific features of facilities. Incumbent's technical judgments, on routine cases, are subject to a general review; on non-routine cases, receives detailed review.

Gathers and interprets straightforward, factual, technical information without guidance.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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Normal.

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**EFFORT**

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5

Normal.

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**TOTAL SCORE**

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470

**EVALUATION OF GS-1 - 15 POSITIONS**

CHEMIST, GS-1320-12

**BENCHMARK**

**FUNCTIONAL STATEMENT**

As a member of the inspection staff in a Regional Office, reviews and evaluates nuclear material control practices, including quantitative measurements and internal controls, of receipts, possession, use, transfer, import and export of nuclear materials held by licensees, regardless of origin and ownership. Determines compliance with regulatory requirements and effectiveness of programs; and reports results with recommendations for action as necessary.

**REGULAR DUTIES**

Inspects licensees, as a member of a team or independently, according to a planned schedule or as directed. Inspections include:

- a. A review of the accuracy and validity of nuclear materials measurement systems, methods and practices.
- b. Observation of physical inventories to evaluate compliance with regulatory requirements, conformance with procedures, and validity of results.
- c. Participation in the verification of the inventory by independent sampling and measurements as indicated.
- d. A review of the internal control of nuclear materials in process, in storage, in transit on-site, and held in equipment and filtration systems.
- e. An examination of documentation associated with measurements, processing, storage, movements, physical inventories and related material control systems.

Prepares, as assigned, the technical material control and accounting portion of the comprehensive inspection report in accordance with applicable NRC Management Directives System's requirements, including recommendations regarding possible enforcement actions.

Performs special studies of licensee's material control programs to determine the technical adequacy of sampling procedures, analytical laboratory procedures, nondestructive assay equipment and procedures and tamper-safing.

Assists in developing inspection plans, including statistical sampling plans for inventory verification.

Assists in evaluation of inventory data, measurement data, and inventory anomalies reported by licensees.

Reviews material control plans and procedures submitted by licensees in accordance with regulatory requirements.

**ANALYSIS**

**BASIC SKILLS**

355

Knowledge of nuclear and atomic chemistry theories, concepts and applications sufficient for understanding characteristics, processing, measurements, utilization, and handling of the various types and forms of nuclear materials possessed by licensees subject to safeguards requirements.

Knowledge of analytical chemistry laboratory methods and equipment currently used for quantitative determinations of nuclear materials under safeguards programs, sufficient to understand sampling, analyzing and evaluation of results.

Knowledge of nondestructive assay methods and equipment currently used for quantitative measurements of special nuclear materials sufficient to understand the principles, techniques and evaluation of results.

Knowledge of nuclear fuel processing, fabrication, and reprocessing systems and their techniques, equipment, operating characteristics for a wide variety of reactor types.

Ability to make definitive evaluations of technical data associated with the safeguards program for the measurement and control of nuclear materials; to recognize and correlate separate but related data, and ability to present effectively technical data and programmatic requirements orally and in writing.

Knowledge of statistical methods and applications sufficient to understand reliability evaluations of measurements and inventory data.

Familiarity with organizations, programs, and procedures of Federal, state and local governments that have responsibilities related to the regulatory activities associated with nuclear materials.

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**CONTACTS**

90

Continuous contacts with the technical and administrative professional staff in the Regional Office.

Frequent contacts with technical and middle management personnel of licensees to discuss technical matters and procedures for material control and accounting.

Occasional contact with technical personnel in other Regions and Headquarters office to discuss matters of mutual interest dealing with policies and procedures for material control and accounting.

Occasional contact with technical personnel in industrial and research organizations to discuss technical safeguards control problems.

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**RESPONSIBILITY FOR DECISIONS**

125

Supervision Received

Chief, Material Control and Accountability Section, Safeguards Branch, Regional Office.

General Supervision "B".

Supervisor designates inspection schedules and plans for execution of safeguards programs. Review is made of inspection results and reports.

Guidelines are provided by the NRC Management Directives System, pertinent parts of the Code of Federal Regulations, nuclear materials safeguards guides, policies of the NRC, and by precedent.

Independent Action

Evaluates analytical measurement methods, sampling practices and materials control and handling procedures used in licensee facilities.

Evaluates licensee's weighing and scale calibration programs.

Evaluates licensee's physical inventory procedures and practices, tamper-safing and presentation of inventory results.

Evaluates licensee's compliance with applicable license conditions, regulatory requirements, and commitments to the safeguards program.

Recommends enforcement action, as necessary, in regard to licensee's safeguards activities.

Recommends changes and corrective actions for problems associated with licensee's activities that may not be specifically covered by regulatory requirements but could affect adversely the effectiveness of the safeguards program.

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**SUPERVISION EXERCISED**

None.

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**WORKING CONDITIONS**

15

Normal office conditions about sixty percent of the time. Frequent field inspections are performed in various licensee plant areas. During inspection field work pertaining to nuclear material safeguards activities at licensee facilities may be required to wear protective clothing and safety devices against hazards associated with toxic and radioactive materials.

**EVALUATION OF GS-1 - 15 POSITIONS**

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**EFFORT**

**15**

Normal administrative effort in office. Frequent field inspections require sustained physical effort involving walking, standing, climbing stairs and ladders both inside and outside.

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**TOTAL SCORE**

**600**

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**EVALUATION OF GS-1 - 15 POSITIONS**

**HYDROLOGIST-OCEANOGRAPHER, GS-1315-12**

**BENCHMARK**

**FUNCTIONAL STATEMENT**

Participates in the safety and environmental impact review of sites for nuclear power plants and other utilization facilities and in the development of technical guidelines and criteria for use by applicants in their designs, operational technical specifications, and environmental field monitoring programs. Frequently performs portions of these reviews under the direction of a higher level reviewer who is responsible for the total hydrologic-oceanographic review for complete plants or facilities.

**REGULAR DUTIES**

Evaluates the hydrologic-oceanographic characteristics of utilization facilities with respect to safety and environmental impact. As assigned by Section Leader or higher level technical reviewers, reviews and determines the adequacy of applicants' reports as they pertain to (a) physical descriptions of the coastal aquatic environment, (b) their analysis of impact of the proposed facility on the receiving waters with respect to water withdrawal and thermal, chemical and radiological discharges and (c) the adequacy of design criteria and protection measures related to design basis hydrologic phenomena. This duty usually entails questioning the applicant about specific details found in the reports and determining the adequacy of the responses by comparison to applicable Standard Review Plans and Regulatory Guides. Identifies differences of technical positions and opinions between staff and applicants.

Prepares preliminary drafts of portions of oceanographic guidelines and technical criteria used by applicants in the preparation of safety and environmental reports for off-shore nuclear plants or plants located on estuarine bodies. Prepares portions of technical specifications for the design and operation of environmental field programs and monitoring activities. Participates with other staff in discussions and evaluations of differences of position and opinion among various commenting organizations and the applicant.

Drafts preliminary sections of Safety Evaluation Reports and Environmental Impact Statements. This entails providing a summary of the oceanographic and hydrologic characteristics of the site, including the transport, dispersion and dilution of thermal, chemical and radiological effluents by the receiving waters.

Meets with representatives of organizations proposing new oceanographic/ coastal engineering designs for nuclear facilities which have a direct bearing on the safety and environmental impact of the contemplated project.

Provides early identification of hydrologic-oceanographic characteristics of the site and engineering design bases for the facility that may create problems in the licensing process.

Reviews and evaluates research proposals to determine which ones show the greatest promise for improving the hydrologic-oceanographic review process. Suggests areas for proposal solicitation.

**ANALYSIS**

**BASIC SKILLS**

375

Knowledge of principles, theories, and practices in the field of physical oceanography, hydraulics, hydrodynamics, transport processes and coastal engineering as it relates to the safety and environmental effects of nuclear reactors.

Knowledge of coastal engineering practices, oceanographic and limnological processes as they relate to the safe and environmentally acceptable construction and operation of nuclear reactor facilities.

Knowledge of NRC regulations, policies, practices and procedures, particularly in the licensing of nuclear facilities.

Skill in presenting scientific and technical information sufficient to prepare technical reports, to make oral presentations and to provide full, clear and concise information in support of technical conclusions.

**CONTACTS**

100

Contacts with middle management, technical and supervisory personnel of the Headquarters NRC staff, primarily the Offices of Nuclear Reactor Regulation, Standards Development and Nuclear Regulatory Research, and supervised contact with NRC contractors, private industrial companies, universities, and other Federal, state and local government agencies. These contacts generally are for the purpose of formulating resolutions to technical issues

relating to (1) the safety and environmental aspects of proposed power reactor construction and operation and (2) current developments in the state-of-the-art predictive and field-measurement techniques related to the determination of hydrologic-oceanographic design levels at facility sites and of effluent dispersion characteristics.

Contacts with middle management and technical personnel of utility companies, architect-engineering firms and their consultants, to discuss hydrologic-oceanographic design levels and protective measures. These supervised contacts are often to present staff evaluations and positions that may differ from those of the applicant. Contacts involve presenting technical points and methods which are frequently in contrast with the desires and opinions of other (non-NRC) professionals.

Occasionally contacts sales representatives and agents to obtain technical information with respect to manufactured products and materials in order to consider their use in connection with the environmental and safety aspects of construction and operation of nuclear facilities.

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**RESPONSIBILITY FOR DECISIONS**

120

Supervision Received

Section Leader, Hydrologic Engineering Section, Hydrology-Meteorology Branch.

General Supervision "B".

The administrative guides are division and overall NRC policy and precedent. Technical guidance is provided by NRC Standard Review Plans and Regulatory Guides and other standards or criteria developed and adopted by the NRC, by other Federal agencies, or by state agencies.

Technical conclusions on unusual matters are reviewed prior to discussions and meetings with project managers or applicant representatives. Difficult problems or unusual situations, especially when no precedents exist, are reviewed with the Section Leader. All officially documented output is reviewed with respect to both technical and non-technical content by the Section Leader.

Independent hearing participation is limited to routine technical subjects for which precedents are firmly established.

Independent Action

Determines the adequacy of technical data and information provided in applicant's reports.

Identifies hydrologic-oceanographic characteristics of the site and design bases that may create problems in the licensing process.

Identifies differences of technical positions and opinions between staff and applicants.

Recommends:

Approval of, or changes to, proposed design flood and low water levels.

Approval of, or changes to, proposed flood protection features.

Acceptance of, or modifications to, proposed surface water dilution and dispersion parameters in relation to thermal, chemical and radiological effluents.

Acceptance of, or modifications to, proposed oceanographic technical specifications.

Acceptance of, or modifications to, proposed field programs and monitoring activities.

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**SUPERVISION EXERCISED**

None.

**EVALUATION OF GS-1 - 15 POSITIONS**

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**WORKING CONDITIONS**

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5

Normal office conditions. Occasional visits to facility sites which may entail walking or climbing, away from roads and walkways, or through construction areas.

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**EFFORT**

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Normal.

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**TOTAL SCORE**

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605

**EVALUATION OF GS-1 - 15 POSITIONS**

**METEOROLOGIST, GS-1340-12**

**BENCHMARK**

**FUNCTIONAL STATEMENT**

As a meteorologist staff member of the Site Safety Research Branch, undertakes research assignments pertaining to: (1) the prediction, modeling and measurement of severe atmospheric turbulences and their possible impact on nuclear power plants, and (2) models for predicting and tracking the dispersal of radioactive debris under varying atmospheric and geographic conditions. In this connection, participates in the awarding and monitoring of contracts for such meteorological research by government laboratories, universities, and private laboratories.

**REGULAR DUTIES**

As a meteorology professional under the Chief, Site Safety Research Branch, is assigned a variety of investigative tasks relative to the analysis and evaluation of proposals submitted by government laboratories, universities, and private research organizations to undertake research studies on specified aspects of meteorological phenomena, e.g., tornadoes, hurricanes, tidal waves. Meteorologic research is difficult and complex since direct observation and measurement is not controllable nor readily simulated for laboratory examination, e.g., tornadoes occur randomly, have a brief duration but with a high intensity. Research efforts relate to such matters as: geographic distribution, maximum intensity, predictability, nature and extent of damage. Quantification techniques (many in their early stage of development) are: photogrammetry, engineering assessment, Doppler radar, Doppler Lidar (laser), among others.

**Task assignments include:**

- a. Reviewing proposals for research contracts for clarity and pertinence of purpose, completeness as a scientific undertaking, and adequacy, using professional understanding of meteorology, scientific research methods, and the prospective value and relationship of the objectives of the proposed study to the objectives of the nuclear safety research program.
- b. Analyzing the justifications submitted for such proposals in terms of funds requested, calibre of research personnel to be used, nature of equipment and facilities to be used, and preparing comments and recommendations to the Branch Chief as to the pertinence of such data and their likely contributions to the successful completion of the objectives in the proposal.
- c. Keeping abreast of professional literature in the field to be alert to new approaches and understandings as well as to preclude continuation of research on subjects which have approached the point of diminishing return or which are sufficiently duplicative as to preclude additional expenditures of funds. Bringing to the attention of the Branch Chief new findings, information, new techniques, significant breakthroughs, etc., for consideration in future contractor proposals.

Reviewing contractors' periodic progress reports for adherence to the purpose and schedules in the contracts, for significant findings, for adequacy of justification for material delays or durations, or other changes. Bringing deficiencies to the attention of the Branch Chief with comments for corrective action.

Preparing backup material as may be needed by the Branch Chief for visits to contractor offices, research laboratories, symposia, conferences, etc. May accompany the Branch Chief on complex, involved visitations.

Furnishing advice and information to applicants for research contracts regarding established office policies, procedures, and practices. Provides information to other professional personnel in NRC seeking meteorological information and data. Exchanges research data and results with other government agencies and professional societies.

**ANALYSIS**

**BASIC SKILLS**

365

Knowledge of physics, atmospheric science, meteorology and transport of radioactive debris equivalent to that attained by a B.S. degree in meteorology and several years of professional work experience.

Ability to analyze theoretical and engineering problems associated with the environmental aspects of nuclear systems. This knowledge must be sufficient to permit analysis of programs encompassing unique studies and projects which will substantially advance knowledge in the environmental aspects of nuclear safety. Specific knowledge and experience in severe storms, tornadoes, and atmospheric dispersion is required.

Working knowledge is required of other scientific and engineering disciplines related to the environmental and siting aspects of nuclear safety such as physics, chemistry, and geophysics, to permit judgments on concepts

and experiments which will affect program direction and the use of complex engineering concepts in connection with the use of nuclear power plants.

Knowledge is required of NRC operations, particularly reactor test stations, national laboratories, NRC contract administration, and NRC budget and financial control systems and techniques sufficient to assist with the planning, coordination and direction of a number of complicated engineering research and development projects.

Familiarity with NRC, ERDA, Department of Defense, NASA, Environmental Protection Agency, National Oceanic and Atmospheric Administration, Department of State, U.S. Public Health Service, organizations and programs, and of their interests in areas related to nuclear safety.

Demonstrated ability to deal effectively with middle management in government and industry in the development and analysis of safety programs, and the establishment of procedures to resolve problems in safety.

Personal tact, persuasive manner, and demonstrated ability to be expressive effectively in writing and orally, are required in making presentations, budget recommendations, all justifications, and program technical recommendations in all contacts.

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#### CONTACTS

95

Frequent contacts with NRC middle management and technical personnel during the development of plans, implementing procedures, justification of the desirability of and cost of projects, evaluation of technical content of program and contractor performance.

Frequent contacts with middle management, and supervisory personnel in NRC contractor organizations, both national laboratories and industrial contractors to develop program schedules, arrange for technical program changes and to assure technical coordination among contractors.

Occasional contacts with ACRS and the various other offices of NRC in the resolution of problems of safety and discussions of long range and current programs.

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#### RESPONSIBILITY FOR DECISIONS

135

##### Supervision Received

Chief, Site Safety Research Branch.

General Supervision "B".

Guidelines are NRC policies for the procurement and conduct of research and development work as found in the NRC Management Directives System, Federal Procurement Regulations, NRC office and divisional policies associated with the administration of research work.

##### Independent Action

Draws independent conclusions and makes recommendations regarding the needs and nature of meteorological research projects. Evaluates contractor's technical performance. Recommendations are reviewed for appropriateness to contract objectives, logic, justification and compliance with NRC regulations and procedures.

Recommends:

Research projects to be undertaken, disallowed, or deferred.

Specific provisions of research contracts relative to the technical phases of a given contract.

Termination or extension of contracts based on relative value of work being performed by contractors.

##### Decisions Made Without Review

Resolves day-to-day technical and administrative problems.

Plans and schedules site surveys after consultation with Branch Chief. Exchanges data and reports which do not involve unsettled or controversial aspects as they may relate to NRC safety issues.

**EVALUATION OF GS-1 - 15 POSITIONS**

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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5

Normal office conditions. Frequent field trips.

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**EFFORT**

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5

Normal.

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**TOTAL SCORE**

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605

**EVALUATION OF GS-1 - 15 POSITIONS**

HEALTH PHYSICIST, GS-1306-12

**BENCHMARK****FUNCTIONAL STATEMENT**

Serves as a Licensing Specialist with responsibility for the technical and radiation safety evaluation of applications for the use of byproduct, source and special nuclear material. Determines that applications for licenses meet the NRC's licensing requirements. Normally acts as approving official for license applications of a routine nature.

**REGULAR DUTIES**

Reviews assigned applications submitted by applicants for byproduct, source and special nuclear material licenses. Assigned the normal range of products and devices which involve some potential health risks. In this capacity:

- a. Determines from the information submitted that applicant's radiation protection procedures, instrumentation, facilities and equipment, and training and experience are sufficient to provide reasonable assurance that the applicant can meet NRC requirements.
- b. Formulates special license conditions indicating limitations or restrictions on licensed operations.
- c. Identifies deficiencies in applications that do not meet NRC licensing criteria and prepares letters to applicants clearly defining the deficiencies.
- d. In complex or difficult licensing situations, with supervision approval, personally visits applicants to evaluate their facilities and equipment for use of radioactive material, and to discuss and resolve problems associated with the proposed programs. Explains pertinent NRC licensing requirements, Federal regulations, and safety standards.
- e. Determines when information is complete and acts as approving official for "Materials License", Form NRC-275, except for unusual or complex cases, or where licensing precedents or policy must be established.

Prepares technical guides, instructions and bulletins related to the licensing of radioactive material for dissemination to licensees and prospective licensees.

Within area of assignment, identifies the need for and recommends changes in licensing policies or procedures.

Provides technical review of regulatory guides, proposed rule changes, and other documents from other parts of NRC and other regulatory bodies.

Trains NRC and Agreement State personnel in proper licensing policies, procedures and techniques.

Provides technical advice and assistance to supervisor, other elements of NRC and Agreement State personnel.

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**BASIC SKILLS**

360

Knowledge of the principles, theory and practices in the field of radiation safety, such as that obtained by graduate level training or by formal training through the B.S. level, plus specialized work experience. Specialized knowledge in the field of radiation safety pertaining to the use of byproduct, source and special nuclear material for research, medical, educational, or industrial purposes. Knowledge of and ability to interpret NRC policy, rules and regulations relative to radioisotopes licensing. This combined knowledge is necessary to perform reviews of license applications and review of regulatory guides.

Work experience in the use of radioactive material. This experience is necessary for performing safety reviews of license applications and review and preparation of regulatory guides.

Ability to meet and communicate clearly and effectively, both in writing and orally, with people of varying technical background and explain NRC authority, responsibility, policies and procedures. This ability is necessary in order to identify deficiencies in license applications, to train NRC and Agreement State personnel, and to prepare and comment on regulations, guides and other documents.

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**CONTACTS**

115

Daily contact with NRC technical and administrative personnel regarding review of applications and issuance of licenses.

Daily contact with scientific and administrative personnel in medicine, education, research and industry to discuss and resolve problems related to licensing.

Frequent contact with staff in IE Regional Offices to discuss problem licensees of mutual concern to NMSS and IE.

Frequent contact with personnel from Agreement States and other regulatory bodies to discuss matters of mutual concern and to provide advice, assistance and training relative to NRC licensing policies and procedures.

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**RESPONSIBILITY FOR DECISIONS**

135

Supervision Received

Section Chief, Radioisotopes Licensing Branch.

General Supervision "B".

Operational guides are in the form of RLB licensing policies and procedures.

Independent Action

Identifies deficiencies in license applications and notifies applicant of deficiencies.

Determines when information is complete and acts as approving official for "Materials License", Form NRC-375, on routine cases.

While on pre-licensing visits to applicants, is responsible for instruction with respect to NRC regulatory and licensing requirements.

Recommends improvements in procedures and overall Branch operation in the radioisotopes licensing program.

Recommends approval or disapproval of applications to Section Chief.

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**SUPERVISION EXERCISED**

None.

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**WORKING CONDITIONS**

5

Normal office conditions. Subject to possible exposure to radiation while on pre-licensing visits to laboratories, hospitals and plants.

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**EFFORT**

5

Normal administrative effort.

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**TOTAL SCORE**

620

HEALTH PHYSICIST, GS-1206-13

## BENCHMARK

## FUNCTIONAL STATEMENT

As a member of the inspection staff in a Regional Office, the incumbent is responsible for specialized radiological inspections of an assigned group (approximately three to seven) of nuclear reactors and fuel fabrication and/or storage facilities. Observes and reports as to the status of compliance with provisions of the Atomic Energy Act of 1954, rules and regulations of the Nuclear Regulatory Commission, construction permits or operating licenses, and guidelines and procedures prescribed by the Office of Inspection and Enforcement in the Headquarters of NRC. Radiological inspections are conducted to assure protection of plant and facility workers and members of the public against any possibility of hazardous exposure to nuclear radiation involved in the handling, storage, operational uses, disposal, and decontamination of radioactive fuels and materials.

## REGULAR DUTIES

Performs periodic inspections of power plants, test and research reactor plants, and fuel fabrication and storage facilities to evaluate radiological safety measures, controls, equipment, procedures, and practices utilized by licensees and to observe and report on the status of compliance with provisions, rules, regulations, and orders of the NRC and requirements of law. Typically assigned the more complex plants and facilities which present special radiological problems because the plants are larger, older, contained outmoded radiological protection and monitoring equipment, or have a history of incidents which have required special investigations or corrective measures.

Plans the scope of radiological inspection in accordance with Office of Inspection and Enforcement (I&E) and NRC regulations, inspection modules prescribed by I&E, standards, and guides. Inspection coverage generally includes licensee operating and emergency procedures for radiological safety; radiological monitoring equipment and procedures; adequacy of protective equipment, clothing, working schedules, and methods utilized by workers; training of workers in safe and protective practices; waste and effluent release management practices; and management policies and practices regarding radiological protection.

Performs, or participates in, investigations of activities of licensees or others, as assigned, which relate to the issuance of a license or an order or unusual circumstances involving facilities and materials subject to license and regulation by the Commission.

Prepares reports of inspections in conformance with requirements of I&E, and makes recommendations as to need for licensing and regulatory action to be taken by the Commission, including action to require immediate cessation of licensee operations.

Reviews and analyzes progress reports, and other reports, promulgated by companies, corporations, and others operating under license with the NRC for the purpose of determining possible violations of the Atomic Energy Act of 1954, license provisions, or rules and regulations of the Commission.

Keeps abreast of current radiological safety technology and participates in the improvement and application of related inspection techniques and standards.

- a. Maintains functional relationships with the Headquarters staff, I&E, through supervisors or directly, as assigned, to obtain technical guidance; consults on technical problems; and to resolve problems pertaining to the Regional reactor and fuel facilities radiological inspection functions.
- b. Develops proposals and recommendations for the improvement and application of radiological inspection techniques and standards.
- c. Attends meetings and otherwise communicates with technical staff of the various regulatory offices, personnel of other components of the NRC, and with other scientists and specialists in Government and industry, as necessary in performance of normal inspection activities, and also, to maintain technical proficiency and understanding of the latest developments in radiological and nuclear safety.

Advises and assists Regional management in the execution of the reactor and fuel facilities inspection function and other compliance activities, as assigned.

- a. Maintains liaison with Federal agencies, such as the DOD and FBI, to inform, cooperate, and assist in control of radiological activities, including accidents and incidents, which may be of interest to such agencies or to the public.
- b. Maintains contact with state and local officials to promote good relations, and to share NRC experience and inspection know-how. This includes arranging for such officials or their representatives to observe NRC inspection work and discuss results, and also to discuss inspection training, techniques, standards, and programs.

- 2. Assists with the preparation of press releases and in the determination, within policy guides, of information on incidents that can be given to the public.

**ANALYSIS**

**BASIC SKILLS**

420

Knowledge of the physical sciences and biology to provide the background of scientific principles necessary to analyze and understand all types of material licensee operations including the radiological safety aspects of reactor and fuel facility operations. This knowledge may be acquired by completion of study equivalent to a B.S. degree and graduate study or equivalent training in health physics plus several years of practical experience in radiological protection obtained through employment with NRC or institutions or industrial organizations using by-product, source or special nuclear materials.

Knowledge of the applications of radiation, radiation phenomena, and protection principles characteristic of alpha-, beta-, X-, gamma-, and neutron radiations necessary for compliance inspection of licensees and execution of the technical phases of investigations involving material licensed, or subject to license, by the Commission. This includes knowledge of proper use of related instrumentation and the calculation and/or interpretation of measurements and data obtained from such use.

Knowledge of the NRC regulatory program, compliance inspection techniques and standards, and licensee requirements involved in inspections to the extent necessary to evaluate all pertinent sources that govern radiological safety; appraise the status of compliance of licensee operations; and proposed modifications of regulations, licensee requirements, and compliance inspection techniques and standards when appropriate.

Ability to assess the attitude and ability of licensee management with respect to the correction of hazardous operations and conditions; and to discuss and explain with licensee management, and others as appropriate, the findings of an NRC inspection or investigation.

Skill in clear presentation (oral and written) of informational and technical material sufficient to communicate effectively with supervisor, licensees, and others; and to prepare reports of inspections and investigations.

**CONTACTS**

125

Continuous to frequent contacts with inspectors in other specialty areas, Branch Chiefs and Section Leaders in the Regional Office to share inspection findings and to advise on the radiological implications of findings by inspectors in other specialty areas.

Frequent contact with management and technical personnel of the licensee to inspect and report upon licensee's performance and to explain and defend inspection findings and their basis and the need for corrective action. Conducts exit interviews with licensee management when inspections are limited to his areas of expertise; participates in exit interviews as a specialist when inspections are conducted by a team under the leadership of a principal inspector.

Occasionally participates in meetings involving NRC Headquarters management to provide advice about failures or deficiencies because of which regulatory action is being considered to ensure protection of the public.

Occasional contacts with other Federal, state and local authorities to explain and exchange technical information dealing with the radiological inspection program and procedures of NRC.

**RESPONSIBILITY FOR DECISIONS**

145

Supervision Received

Section Chief.

General Supervision "B".

Guides are appropriate parts of 10 CFR, the NRC Management Directives System, I&E inspection plans and modules, as well as established I&E techniques and standards for facility inspection.

**EVALUATION OF GS-1 - 15 POSITIONS**

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**Independent Action**

Plans the detailed scope of assigned radiological inspections and investigations in accordance with NRC requirements.

Independently prepares and submits statements of conclusions, recommendations, and technical judgment as to the adequacy of radiological safety and compliance based on inspection findings of assigned licensed activities in areas of technical specialty.

Recommends appropriate action to deal with noncompliance of licensee.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

15

Normal working conditions in the Regional Office. Approximately 30-40 percent of working time is required for field inspections and investigation work, which involves exposure to industrial hazards and the need to utilize protective equipment and clothing against possible radiation hazards.

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**EFFORT**

15

The field work may require extensive walking, climbing, standing, and exposure to inclement weather.

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**TOTAL SCORE**

72

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## HEALTH PHYSICIST, GS-1306-13

## BENCHMARK

## FUNCTIONAL STATEMENT

As licensing specialist, responsible for the technical review, evaluation and issuance of licenses for the possession and use of byproduct, source, and special nuclear material in a variety of applications involving complex or unusual problems. Assists in the development of Commission regulatory policies, procedures, criteria, and guides for licensing the uses of radioactive material. Normally acts as approving official for license applications assigned for review.

## REGULAR DUTIES

Reviews assigned applications submitted by applicants for byproduct, source and special nuclear material licenses. Normally assigned the more complex applications involving greater potential health hazards or unusual problems. In this capacity:

- a. Determines from the information submitted that the applicants' radiation protection procedures, instrumentation, facilities and equipment, and training and experience, are sufficient to provide reasonable assurance that the applicant can meet NRC requirements.
- b. Formulates special license conditions indicating limitations or restrictions on licensed operations.
- c. Identifies deficiencies in applications that do not meet NRC licensing criteria and prepares letters to applicants clearly defining the deficiencies.
- d. In complex or difficult licensing situations, with supervision approval, personally visits applicants to evaluate their facilities and equipment for use of radioactive material, and to discuss and resolve problems associated with the proposed programs. Explains pertinent NRC licensing requirements, Federal regulations, and safety standards.
- e. Evaluates complex or unusual radiation problems where licensing criteria and policy must be established.
- f. Determines when information is complete and acts as approving official for "Materials License", Form NRC-375, except for those areas of radioisotope use where licensing precedents or policy must be established.

Prepares technical guides, instructions, and bulletins related to the licensing of radioactive material for dissemination to licensees and prospective licensees.

Provides technical review of regulatory guides, proposed rule changes, and other documents from other parts of NRC and other regulatory bodies.

Trains NRC and Agreement State personnel in proper licensing policies, procedures, and techniques.

Provides technical advice and assistance to supervisor, other elements of NRC and Agreement State personnel. Works with other groups within NRC in formulating licensing criteria, policy, and procedures and in making radiation hazard evaluations.

Identifies need for, recommends, and prepares new or modified regulations, or guides, based on evidence of need found in review of license applications, results of compliance inspections, and incident reports.

Performs generic studies related to radioisotope licensing.

Maintains liaison between RLB and other Divisions of the Commission, other government agencies, and professional peer groups.

## BASIC SKILLS

460

Thorough and detailed knowledge of the principles, theory, and practices in the field of radiation safety, such as that obtained by graduate level training or by formal training through the B.S. level, plus several years of specialized work experience. Specialized knowledge in the field of radiation safety pertaining to the use of byproduct, source, and special nuclear material for research, medical, educational, or industrial purposes. Knowledge of and ability to interpret NRC policy, rules, and regulations relative to radioisotopes licensing. This combined knowledge is necessary to perform independent safety reviews of license applications and review of regulatory guides.

Work experience in the use of radioactive materials. This experience is necessary for performing safety review of license applications and review and preparation of regulatory guides.

Ability to meet and communicate clearly and effectively, both in writing and orally, with people of varying technical backgrounds and explain NRC authority, responsibility, policies and procedures, and technical aspects of application review. This ability is necessary in order to identify deficiencies in license applications, to train NRC and Agreement State personnel, and to prepare and comment on regulations, guides, and other documents.

Knowledge of functions and activities of other sections of NRC, other government agencies, and professional peer groups involved in the use or regulation of radioactive material. This knowledge is necessary to maintain liaison with these organizations and to work effectively on task forces.

Knowledge of basic NRC goals and policies, radiation protection standards, radioisotope techniques and use, and licensing procedures sufficient to independently review and resolve complex safety problems, to identify the need for and prepare new or modified regulations, or regulatory guides, and to identify need for and recommend changes in licensing policies and procedures.

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#### CONTACTS

130

Daily contact with NRC technical and administrative personnel regarding review of applications and issuance of licenses.

Daily contact with scientific and administrative personnel in medicine, education, research and industry to discuss and resolve problems related to licensing.

Frequent contact with staff in IE Regional Offices to discuss problems of licensees of mutual concern to NMSS and IE and to arrive at mutually agreeable courses of action.

Frequent contact with personnel from Agreement States and other regulatory bodies to discuss matters of mutual concern and to provide advice, assistance, and training relative to NRC licensing policies and procedures.

Frequent contacts with representatives of advisory committees, consultants, other government agencies, and professional peer groups to maintain liaison on matters of mutual interest.

Occasional contact with NMSS management personnel and professional staff in IE, SD, ELD, OCM and SECY to develop regulations and guides and solve special problems.

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#### RESPONSIBILITY FOR DECISIONS

140

##### Supervision Received

Section Chief, Radioisotopes Licensing Branch.

General Supervision "B".

Subject to administrative guides or NRC Manual and NRC policy. Operational guides are in the form of RLB licensing guides, memorandum, or verbal directive.

##### Independent Action

Determines when information in applications is complete and acts as approving official for "Materials License", Form NRC-375, except for those areas of radioisotope use where licensing precedents or policy must be established.

Identifies deficiencies in license applications and notifies applicant of deficiencies.

While on pre-licensing visits to applicants, is responsible for instruction with respect to NRC regulatory and licensing requirements.

Recommends improvements in procedures and overall branch operations in the radioisotopes licensing program.

Recommends changes in regulations, guides, policy, and procedures.

Determines the need for pre-licensing visits to license applicants.

**EVALUATION OF GS-1 - 15 POSITIONS**

Represents the Radioisotopes Licensing Branch at professional meetings, task forces, and interagency meetings.

**SUPERVISION EXERCISED**

None.

**WORKING CONDITIONS**

5

Normal office conditions. Subject to possible exposure to radiation while on pre-licensing visits to laboratories, hospitals, and plants.

**EFFORT**

5

Normal administrative effort.

**TOTAL SCORE**

740

**EVALUATION OF GS-1 - 15 POSITIONS**

SEISMOLOGIST, GS-1350-13

**BENCHMARK****FUNCTIONAL STATEMENT**

Evaluates the geological and seismological characteristics of proposed sites for nuclear facilities and develops criteria and standards for evaluating geological and seismological matters as they affect the safety of nuclear facilities. Recommends the acceptance of or changing of proposed sites for licensing.

**REGULAR DUTIES**

Analyzes, interprets, and evaluates geophysical, seismological, and geological data submitted to the NRC in support of applications for the construction and operation of nuclear facilities to determine the acceptability of proposed seismic design bases. Makes technical judgments as to the relevance and meaning of the data and whether the data is sufficient to assure the safety of proposed sites.

Develops and revises guides and criteria for geophysics, seismology, and geology, and in the development of requirements for evaluation of the safety of proposed reactor sites. Conducts generic studies in areas where advanced professional analysis is necessary to resolve controversial issues or where precedents and guidelines are not directly applicable. Recommends areas of need for guides and criteria, as well as studies required to develop them.

Develops and makes recommendations for research programs related to geophysical, geological, and seismological matters important to the safety of nuclear facilities. Also reviews and comments on research proposals and follows ongoing research programs related to geology, seismology, and geophysics.

Occasionally, appears before the Advisory Committee on Reactor Safeguards and at public hearings to participate in presentations and to respond to questions on the staff's technical analysis and evaluation of geophysical, seismological, and geological matters associated with license applications.

**ANALYSIS****BASIC SKILLS**

Thorough knowledge of the principles, theory, and application of geophysics, geology, and seismology, including knowledge of current and changing developments in these fields, sufficient to make evaluations in nuclear facility licensing cases.

Ability to make technical judgments on the relative merit, safety, and feasibility of various geophysical, seismological, and geological concepts that may be proposed by applicants. These judgments are interpretive, where relevant data is often unavailable, and are subject to challenge from the scientific community outside of NRC.

Ability to make technical judgments on the relative merits of various interpretations of geological and seismological conditions to assure appropriate safety margins in siting of nuclear facilities.

Ability to summarize and communicate both orally and in writing and to present issues clearly and concisely for consideration by management and to defend technical positions on issues which are controversial and subject to conflicting interpretations.

Knowledge of the Commission's rules and regulations, especially those criteria, standard review plans, and regulatory guides dealing with seismological and geological aspects of nuclear facility licensing.

**CONTACTS**

Continuous contacts with functional reviewers and frequent contact with NRC management to present technical positions and recommendations on geophysical, seismological, and geological matters as they relate to license applications and standards development.

Frequent contact with professional staff and occasional contact with senior representatives of utilities and manufacturers and their consultants on geophysical, seismological, and geological matters to obtain additional information, request clarification of data, to inform the licensee's representatives of NRC policies and procedures, and to persuade licensee's representatives of the need to change technical positions.

Frequent contact with the technical staffs of other Federal agencies and occasional contacts with the ACRS and hearing boards to give and receive information on the review of geophysical, seismological, and geological aspects of license applications and to defend technical positions on controversial issues which are subject to conflicting interpretations.

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**RESPONSIBILITY FOR DECISIONS**

155

Supervision Received

Section Leader, Geology Section.

General Supervision "B".

Guidelines are authoritative technical references in the geotechnical field and the Commission's regulations and policies regarding regulatory activities. These guides include the Standard Format and Content of Safety Analysis Reports, Regulatory Guides, the Standard Review Plan, and the policies and practices of the Division of Site Safety and Environmental Analysis, the Geology and Seismology Branch, and the Geology Section. Considerable adaptation and interpretation of guidelines must be made. Guidelines frequently are not applicable to judgments made by the incumbent.

Independent Action

Makes recommendations on the acceptability of scientific methods, procedures, and seismic design bases proposed by licensees or applicants.

Recommends actions to be taken with regard to funding of research, the development of technical licensing criteria and guidelines, and utilization of consultants for analyzing and evaluating nuclear facility sites. Identifies technical areas requiring additional research based on review data and conclusions.

Recommends actions to be taken by applicants or licensees in order to solve technological problems and to meet NRC's licensing requirements.

Prepares written testimony for presentation at hearings. (Testimony is reviewed by supervisors prior to submittal to a hearing board.)

Makes determinations whether technical information on geophysics, seismology, geology, and earthquake engineering provided by applicants is accurate and adequate for evaluation of the safety of proposed reactor sites.

Work Accepted Without Review

Computations and detailed analytical work in support of recommendations.

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**SUPERVISION EXERCISED**

None.

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**WORKING CONDITIONS**

5

Normal office conditions with occasional travel to reactor facilities where varying conditions exist.

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**EFFORT**

5

Normal, except during site visits where walking and climbing in site vicinity is sometimes required.

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**TOTAL SCORE**

755

AQUATIC BIOLOGIST, GS-0482-14

BENCHMARK

FUNCTIONAL STATEMENT

Participates in the review of the environmental impact of proposed nuclear facilities by evaluating the proposed facility's effects on the aquatic surroundings. Provides technically authoritative advice and assistance on aquatic biological environmental matters, when requested, within NRR and occasionally to other offices of NRC.

REGULAR DUTIES

Independently assesses the environmental impact of nuclear power plants and other nuclear facilities by (a) reviewing applicant's environmental reports submitted to the NRC to determine the report's adequacy for providing a basis for impact assessment, (b) identifying specific areas of the report's inadequacy and identifying methods whereby conformance with current guidelines for environmental evaluations may be achieved, (c) advising and assisting other NRC offices on the development of environmental statements and environment technical specifications in support of NRC's licensing functions.

Reviews and determines the adequacy of the applicant's environmental reports as they pertain to the description of aquatic surroundings at the proposed and alternate sites, identification and quantification of potential impacts on those surroundings due to the construction and operation of the proposed and alternate plant designs, and the methodology for monitoring and assessing actual impact through pre-operational and operational environmental surveillance programs. Evaluates statistical models and/or theoretical mathematical models which may have been used by the applicant in estimating impact on aquatic resources.

Maintains current knowledge of research in aquatic ecology and the state-of-the-art of environmental modeling and impact assessment methodology. Applies this knowledge by providing guidance to applicants and making independent evaluations of environmental impact. Contributes to the development of regulatory standards and criteria for use by applicants in their aquatic field programs in order to establish baseline conditions and to monitor for operational impact.

As an analytical technique in the review of environmental reports, describes population and ecosystem dynamics using theoretical mathematical models which are suitable for assessing the potential impact of nuclear power plant operation on aquatic biota. Translates these models into a suitable program language for use in solving problems with digital computers. Assists in the development of automated data processing programs for the storage and retrieval of field data.

Represents NRC and makes technical decisions within established guidelines in meetings with applicants regarding the adequacy of environmental technical specifications and limiting conditions of operation for specific power plants. Evaluates proposed modifications to technical specifications on operating plants to reflect changing requirements and new information.

Participates in discussions and evaluations of major differences of position and opinion on the applicant's report and NRC's environmental statement.

Testifies in public hearings as an expert witness on the NRC's conclusions contained in environmental impact statements.

OCCASIONAL DUTIES

Renders specialized technical assistance to other groups in NRC with respect to implementation of the National Environmental Policy Act and other regulatory responsibilities.

As assigned, participates in technical conferences and seminars sponsored by the NRC, National Academy of Sciences, Council on Environmental Quality, Environmental Protection Agency, and other Federal, State and local agencies or professional societies. Advises the Office of Nuclear Reactor Regulation of those developments in the environmental field which have a bearing on the NRC program.

Testifies at public hearings before Atomic Safety and Licensing Boards on environmental matters as a representative of NRC, presenting NRR's position on environmental considerations with respect to proposed reactor construction and operation.

Identifies research needs to NRR management and serves on NRC research review committees in area of speciality.

ANALYSIS

BASIC SKILLS

485

Broad knowledge of principles, theories, and practices in the fields of marine and fresh-water ecology, fish population dynamics, and ecosystem modeling as these relate to the environmental effects of nuclear power reactors and other nuclear facilities. Interdisciplinary knowledge and experience in the biological and physical sciences as they relate to the environmental impact of nuclear facilities. Must have the necessary knowledge and experience to determine whether the environmental impact of the construction and operation of nuclear power plants and other nuclear facilities has or has not been adequately defined.

Knowledge is required of current research conducted by or for NRC and other organizations with regard to monitoring and modeling physical and biological processes in aquatic habitats. Must be able to understand and relate changes in the physical characteristics of a water body due to power plant discharges to changes in the dynamics of aquatic biota.

CONTACTS

150

Contacts are with top and middle scientific management of NRC and its contractors, private industrial companies, universities, and other Federal, State, and local government agencies. These contacts generally are for the purpose of obtaining information and evaluating the basis for conclusions and positions set forth in applicant's environmental reports and other organization's comments on those reports and NRC environmental statements. Frequently must challenge technical proposals and positions and must convince others of the need for significant changes to major projects and plans.

Occasionally contacts sales representatives and agents to obtain technical information with respect to manufactured products and materials in order to consider their use in connection with the environmental aspects of construction and operation of nuclear reactors.

Occasionally has contacts with legal counselors for NRC, the applicant, and intervenors when giving expert testimony in an adversary relationship before licensing boards.

RESPONSIBILITY FOR DECISIONS

175

Supervision Received

Chief, Environmental Specialist Branch.

General Supervision "A".

Administrative guides are applicable sections of 10 CFR, the NRC Management Directives Systems, and scientific and technical standards developed by the NRC, by other Federal agencies, or by State agencies, as appropriate.

Independent Action

Responsible for making final recommendations for the development of technical standards and criteria for use by applicants in their environmental field programs and monitoring activities.

Furnishes final recommendations on specific technical questions raised by groups within NRC and other organizations regarding environmental reports and statements.

Establishes appropriate technical specifications to limit the environmental impact of power plant operations.

Recommends modifications to existing technical specifications as new information or changed requirements develop.

SUPERVISION EXERCISED

None.

**EVALUATION OF GS-1 - 15 POSITIONS**

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**WORKING CONDITIONS**

**5**

Normal.

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**EFFORT**

**5**

Normal.

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**TOTAL SCORE**

**820**

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## SENIOR GEOLOGIST, GS-1350-15

## BENCHMARK

## FUNCTIONAL STATEMENT

Serves as the NRC expert and consultant on the geologic aspects of reactor sites and their implication with respect to the safety requirements of nuclear facility design. Acts as the authoritative agency expert on the determination of the age of movements of geologic faults. Applies specialized and intensive knowledge of geology to interpret geologic hazards for a wide variety of geologic conditions at reactor sites. Develops criteria and standards for evaluating geologic matters as they affect safe siting of nuclear reactors, fuel reprocessing facilities, and spent-fuel storage areas.

## REGULAR DUTIES

As the NRC technical expert on the determination of the age of movements of geologic faults, provides authoritative technical input to NRC regulations, standards, guides and criteria developed within the agency. Prepares and provides expert testimony to hearings boards and committees on technical aspects of age movement of faults. Renders advice and guidance to other organizations within and outside of NRC. Prepares and presents papers and chairs meetings at professional symposia on his area of expertise.

Participates as a senior technical member of the NRC and as a principal reviewer analyzing, interpreting, and determining the adequacy of the geologic data submitted to the NRC in support of applications for construction and operation of nuclear facilities. Applies authoritative expert knowledge from independent evaluation of all sources of information to resolve complex geologic problems requiring understanding of unique site specific data.

As requested, develops criteria and standards for evaluating the geologic characteristics of proposed sites through contacts with standards development personnel and professional peers. Serves as an NRR contact for NRC geologic research in these areas.

Evaluates the adequacy of site environmental conditions including instrumentation and mapping programs proposed for collection of data during construction and operating of nuclear facilities. Deficiencies are uncovered and corrected through discussions with applicant's senior technical representatives and their consultants.

Provides specialized and authoritative technical assistance and advice to NRC organizational elements regarding the adequacy of proposed or existing design actively sought for assistance and advice in resolving complex geologic problems.

Organizes and chairs site specific review meetings involving professional peers, consultants, state geologists and academic groups. Provides specialized and authoritative knowledge of reactor siting standards, codes and governing regulations for siting nuclear facilities.

Maintains authoritative expert knowledge of the latest technical developments in the discipline of geology by literature review, attendance at professional society meeting, and visits to both academic and government agencies expert in these disciplines in order to assess such developments in light of safe siting of nuclear facilities and to make recommendations for improvements in safe siting and review procedures.

Provides technical assistance to NRC staff, Office of Standards Development and Office of Nuclear Regulatory Research, by providing recommendations for research and standards development, by reviewing and commenting on research proposals, and by participating in the actual developments of such guides and criteria.

Participates as senior technical reviewer in the preparation of staff testimony and appears as an expert witness before the ACRS, ASLB, and other hearing groups as required to present the basis for geologic analyses and decisions.

Participates as a representative of regulatory staff and chairs NRC, national and IAEA committees on the development of reactor siting criteria, codes and regulations.

## ANALYSIS

## BASIC SKILLS

550

Requires deep and authoritative knowledge of techniques for determining age of movement of geologic faults. Especially expert in such techniques as geochronological dating of mineral assemblages in faults and the deriving of age of faults by relating to the known ages of faults.

Requires expert knowledge of theories, principles, and techniques in the discipline of geology (including such subdisciplines as geotectonics, geophysics, engineering geology, and geochronology, etc.) sufficient to review independently and evaluate their application to nuclear facility siting programs.

Requires the ability to assess and apply various subdisciplines of geology such as geotectonics, geophysics, engineering geology, structural geology, remote sensing, marine geology, etc., as well as broad experience with a variety of tectonic settings in North America in order to evaluate the site safety of proposed nuclear plants and facilities.

Must possess the ability to summarize and communicate both orally and in writing and to present complicated technical issues clearly and concisely for the applicant's and NRC management's consideration.

The ability to make technological judgments on the relative merits and application of various concepts of geology as they relate to safe siting of nuclear facilities is required.

Familiarity with the Commission's rules and regulations, especially those criteria and standard review plans dealing with nuclear facility licensing is required.

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## CONTACTS

160

Continuous contacts are with the technical consultants of applicants seeking permits for construction and operation of nuclear facilities in order to evaluate differences that may arise regarding geologic and seismologic site conditions.

Maintains continuous contacts with senior technical and professional staff in NRC (including project management, standards development and research personnel) in order to assure that geologic and seismic hazards of sites have been thoroughly evaluated.

Has frequent contacts with professional staffs of the U.S. Geological Survey and various state geological surveys, as well as with leading scientific experts in both academic and professional sectors to review specific and generic geological siting matters.

Has frequent contacts with the geologists, seismologists, managers and senior representatives of utilities, architect-engineer firms and construction firms to discuss and evaluate proposed site geologic and seismic conditions for nuclear facility sites.

Has occasional contacts with NRC's and applicant's legal staffs as well as the members of the ACRS, ASLB and other hearing proceedings involving geologic and seismologic matters relating to site safety.

---

## RESPONSIBILITY FOR DECISIONS

230

### Supervision Received

Section Leader, Geosciences Branch.

General Supervision "A" on technical matters with full authority to act within the framework of broad functional assignments. Technical findings are accepted by Section Leader and generally by higher levels as authoritative.

Guidelines are geologic, seismologic, and engineering geology principles and authoritative technical references in these disciplines. Administrative guides are 10 CFR, NRC Management Directives System, standard review plans, the Commission's regulatory policies, standards and guides, and policies of the office and division and branch procedures.

### Independent Action

Responsible for reviewing applicant's geological mapping and seismic instrumentation program to determine that geologic and seismologic hazards at proposed sites are recognized and evaluated. Makes final technical judgments and recommends measures to assure safe siting.

Responsible for the technical evaluation of geologic and seismic matters at proposed nuclear facility sites to assure feasibility of siting prior to authorization of construction activities.

Recommends and endorses funding of technical support and research programs, development of technical criteria and guidelines, and utilization of consultants for analyzing and evaluating safe siting policies.

As requested, responsible for preparing written testimony for presentation at hearings.

Through discussions with applicant, develops approaches and courses of action needed to solve technological problems relating to site safety matters.

**EVALUATION OF GS-1 - 15 POSITIONS**

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Responds under oath as a professional expert witness to questions asked during (nuclear facility) hearing proceedings on geologic and seismic issues. Gives technical advice to the ACRS and all levels, as needed, of NRC on geologic matters of critical concern. His judgments on the age of geologic faults are considered to be that of a top authoritative expert for NRC.

Resolves day-to-day technical problems relating to review of proposed sites.

Plans and schedules site visits.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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5

Normal office conditions usually with frequent travel to nuclear facilities sites where varying site conditions exist.

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**EFFORT**

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5

Normal.

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**TOTAL SCORE**

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950

**EVALUATION OF GS-1 - 15 POSITIONS**

**SENIOR REACTOR PHYSICIST, GS-1310-15**

**BENCHMARK**

**FUNCTIONAL STATEMENT**

Serves as the NRC expert and consultant on the physics aspects of core performance within nuclear reactors. Applies specialized and intensive knowledge of neutron behavior within the reactor core on a wide variety of problems involving reactivity effects, transients and heat decay.

**REGULAR DUTIES**

Assigned, and in some instances proposes, unusual or unique generic studies and problems dealing with reactor physics which have far reaching effects on current and future generation power reactors. For example, evaluates uncertainties associated with power distribution calculations and measurement in order to establish appropriate operating limits.

Participates as a senior technical member of the Office of Nuclear Reactor Regulation and NRC as a principal reviewer for evaluating reactivity effects and transients in proposed or existing nuclear power plants and as project leader and coordinator for other programs which he is assigned. For example, performs new and original studies of the causes, probabilities and effects of design basis accidents such as the BWR control rod drop.

Prepares or participates in the development of related reactor standards, codes, and criteria associated with programs to which he is assigned. For example, evaluates experimental data and theoretical analysis of the reactor decay heat generation rate and associated uncertainties.

Provides specialized and authoritative technical assistance and advice as requested to all organizational elements within NRC regarding the adequacy of proposed or existing design, including the application of reactor standards, codes, and criteria to specific operating reactors and to entire classes of reactors.

Serves as a consultant. Actively sought for assistance and advice in his area of expertise.

Represents the regulatory staff at ACRS meetings and participates as expert witness at public hearings.

**OCCASIONAL DUTIES**

Provides direction to the technical work of other members of Reactor Physics Section as requested by the Section Leader.

**ANALYSIS**

**BASIC SKILLS**

550

Expert knowledge of the basic principles, theories, and practices in the field of nuclear reactor physics. Competence must be adequate to enable evaluation and direction of a wide variety of concepts and programs. Must be competent to understand and verify complex calculations of reactor designers and researchers and to separate basic and applied physics principles and practices from unproven theories or proposals.

The basic skill requirements are considerably in excess of those obtained by formal education at the university level (Ph.D. degree), being supplemented by considerable experience in the design and evaluation aspects of reactor physics. Demonstrated ability to grasp technical problems in the evaluation of the physics aspects of proposed reactors and diagnosis of anomalies in operating reactors. Requires a good knowledge of the Nuclear Regulatory Commission's regulations, principles, and procedures, and an understanding of the underlying technical reasons for these regulations. Ability to chair top level technical discussion and working groups. Ability to consolidate complex and diverse opinions of these groups into a concise technical position.

**CONTACTS**

160

Continuous contacts with senior and middle level technical and professional NRC staff for the purpose of providing authoritative and expert advice and guidance on the physics aspects of core performance.

Frequent contacts with private industry consultant firms, senior representatives of public utilities, other government agencies, and national research laboratories to discuss controversial or unique technical physics problems. Represents the NRC as authoritative technical expert in assigned area of work. Persuades other organizations to alter direction of effort and approaches to technical work.

Occasional contacts with the Advisory Committee on Reactor Safeguards and Atomic Safety Licensing Boards and Panels as to provide expert information, advice and testimony in his work area.

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**RESPONSIBILITY FOR DECISIONS**

230

Supervision Received

Section Leader, Reactor Physics Section, Core Performance Branch.

General Supervision "A" on technical matters with full authority to act within the framework of broad functional assignments.

Technical findings are accepted by Section Leader and generally by higher levels as authoritative. Administrative guides are NRC Manual and NRC policy. Operational guides are in the form of memoranda or verbal directives.

Independent Action

Responsible for making final technical recommendations within his assigned areas regarding the adequacy of proposed and existing designs and the formulation of related reactor standards, codes, and criteria.

Judgments, in most cases, are initially subjected only to policy review, but eventually will be subjected to extensive NRC and industry study. Judgments in the area of core performance physics are viewed as those of a top authoritative technical expert by all levels within NRC, including the Atomic Safety and Licensing Board and the ACRS.

Represents the NRC in technical meetings with industrial representatives and national research laboratories relating to the technical adequacy of proposed and existing designs and to reactor standards, codes, and criteria in reactor physics. Advice and guidance in such meetings is viewed as authoritative and final on technical matters.

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**SUPERVISION EXERCISED**

None.

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**EFFORT**

5

Normally minimum effort. Some climbing involved when inspecting or working near reactors.

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**WORKING CONDITIONS**

5

Normal office conditions while in Washington. Extensive travel involved. Subject to mild radiation exposure while inspecting or working near reactors.

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**TOTAL SCORE**

950

CLERK-TYPIST, GS-0322-2

## BENCHMARK

## FUNCTIONAL STATEMENT

Performs clerk-typist duties for a section or a branch.

## REGULAR DUTIES

Types letters or forms correctly from clean copy.

Types narrative material from rough drafts where comprehension of the text is not required and where complicated spacing arrangements are not involved. May type tabular material when material and headings to be typed are specifically identified. Responsible for using NRC correspondence manual, Government Style Manual, and standard nontechnical dictionaries to check for correct spelling and form.

Files correspondence and records in previously established section or branch files.

Assists in maintaining files in accordance with NRC file procedures and records disposition schedules.

Answers telephones, takes messages, and refers callers to the proper individuals.

## ANALYSIS

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BASIC SKILLS

135

Proficiency in typing skill sufficient to type letters, reports, and data on printed forms where comprehension of the text is not required and where complicated spacing arrangements are not involved.

Ability to understand and accurately carry out simple instructions, oral or written, with regard to filing and recordkeeping.

Ability to acquire knowledge of NRC filing procedures. Filing skill sufficient to file alphabetically and numerically.

Ability to answer telephone calls politely and efficiently, and refer callers to appropriate personnel.

---

CONTACTS

30

Frequent personal and telephone contacts with personnel at clerical levels to obtain or furnish information regarding assignments. Occasional contacts with professional staff to receive assignments.

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RESPONSIBILITY FOR DECISIONS

60

Supervision Received

Chief of branch or section to which assigned.

Detailed supervision: Section or branch secretary provides guidance and assistance when needed. Guidelines are applicable parts of the NRC File and Correspondence Manuals, office and branch procedures.

Independent Action

Answers and routes telephone calls.

Work Accepted Without Review

Correct filing of correspondence and records after material has been coded for filing.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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5

Normal office environment.

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**EFFORT**

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5

Normal clerical.

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**TOTAL SCORE**

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235

## CLERK-TYPIST, GS-0322-3

## BENCHMARK

## FUNCTIONAL STATEMENT

Performs clerk-typist duties for a section or a branch.

## REGULAR DUTIES

Types correspondence, reports, and tabular or statistical material from rough draft or handwritten material involving nonspecialized terminology when the work procedures require the material to be typed in final form without an intermediate typed rough draft. In cases where material consists of specialized terminology or requires judgment as to spacing arrangements, preparation of a typed rough draft is usual.

Responsible for using NRC correspondence manual, Government Style Manual, and technical or standard dictionaries to assure correctness of spelling, grammar, and form.

Assists in maintaining section or branch files in accordance with NRC file procedures and records disposition schedules.

Makes and receives phone calls for professional section or branch personnel. Refers calls to the proper individuals. Supplies items of information which require understanding of the section or branch functions and organization of work.

Receives and distributes incoming mail, attaching appropriate files or documents as necessary.

## ANALYSIS

## BASIC SKILLS

140

Proficiency in typing sufficient to type neat and accurate correspondence, reports, tables, and memoranda without requiring an intermediate typed rough draft where nonspecialized terminology is involved. In cases where scientific or technical terminology is involved, preparation of a typed rough draft is usual.

Ability to acquire knowledge of NRC filing and administrative procedures and filing skills necessary to file correspondence and records in the files accurately.

Ability to learn the organizational and functional responsibilities necessary to distribute mail correctly and refer callers to appropriate individuals.

Ability to answer incoming phone calls politely, efficiently, and refer calls to the proper individuals.

## CONTACTS

40

Frequent contacts with clerical and professional staff for receiving work assignments and furnishing routine information.

Frequent telephone and personal contacts to furnish information requiring some explanation to develop accurate understanding and to verify facts and direct callers to the proper individuals.

## RESPONSIBILITY FOR DECISIONS

65

Supervision Received

Chief of branch or section to which assigned.

Direct supervision. Guidelines are NRC File and Correspondence Manuals, office and branch procedures.

Independent Action

Answers and routes telephone calls and supplies specific items of information which are of common use and readily available.

Work Accepted Without Review

Correct coding and filing of correspondence and records.

---

SUPERVISION EXERCISED

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None.

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WORKING CONDITIONS

---

5

Normal office environment.

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EFFORT

---

5

Normal clerical.

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TOTAL SCORE

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255

**EVALUATION OF GS-1 - 15 POSITIONS**

CLERK-STENOGRAPHER, GS-0312-3

**BENCHMARK**

**FUNCTIONAL STATEMENT**

Serves as a clerk-stenographer for a section or a branch, performing stenographic and general clerical functions.

**REGULAR DUTIES**

Takes dictation covering correspondence, reports, and memoranda at the dictator's normal rate of dictation. (May interrupt for clarification of terminology that is unfamiliar or highly specialized.) Takes and transcribes shorthand notes of telephone conversations, meetings, and conferences (non-verbatim).

Usually types intermediate rough draft from notes, longhand drafts or dictating equipment for review, when material is of a technical nature.

Ensures that correspondence is correct regarding punctuation, capitalization, spelling, grammar, etc.

Screens and delivers mail to appropriate personnel.

Answers the telephone, takes messages and refers callers to the proper individuals. Supplies items of information which require understanding of the section or branch functions and organization of work.

Assists in maintaining correspondence and records file.

**ANALYSIS**

**BASIC SKILLS**

145

Must be a qualified stenographer.

Ability to learn operation of dictation transcribing equipment.

Ability to become familiar with and understand technical terms.

Ability to assist in composing routine correspondence, editing notes, letters, and reports to ensure proper grammar, construction, spelling, punctuation, and conformance with correspondence procedures.

Ability to acquire knowledge of NRC correspondence and file procedures necessary to assist in maintenance of area files.

Ability to deal with telephone callers and other personnel tactfully, and refer callers to appropriate individuals.

Proficiency in typing sufficient to type neat and accurate correspondence, reports, tables, and memoranda without requiring an intermediate typed rough draft when nonspecialized terminology is involved. In cases where scientific or technical terminology is involved, preparation of a typed rough draft is usual.

**CONTACTS**

40

Continuous contacts with clerical and middle management levels of personnel within the branch, division, or office for the purpose of receiving and exchanging information regarding work assignments. Provides telephone information requiring some explanation to develop accurate understanding and to verify facts.

**RESPONSIBILITY FOR DECISIONS**

65

Supervision Received

Chief of a section or branch.

Direct supervision.

Explicit guidelines are NRC File and Correspondence Manuals, office and branch procedures.

Independent Action

Refers correspondence to proper individuals, answers telephones and refers calls to appropriate personnel. Supplies specific items of information which are of common use and readily available.

Work Accepted Without Review

Correct filing of correspondence and records.

---

SUPERVISION EXERCISED

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None.

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WORKING CONDITIONS

---

5

Normal office environment.

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EFFORT

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5

Normal clerical.

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TOTAL SCORE

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260

**EVALUATION OF GS-1 - 15 POSITIONS**

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MAIL AND FILE CLERK, GS-0305-3

**BENCHMARK**

**FUNCTIONAL STATEMENT**

Performs filing and mail distribution operations, which may involve classified material, in a centralized mail and file operation of an office or division of NRC.

**REGULAR DUTIES**

**Mail Duties:**

Receives and sorts communications into such categories as mail to be opened, mail to be routed unopened, mail to be recorded or given special handling (such as classified or docket communications).

Reads and distributes mail by subject matter content directly to the branch, unit or individual responsible for the action. Distributes mail to at least 5-25 different groups according to responsibilities assigned to various subdivisions of the organization, some of which are engaged in technical and professional fields of work.

Checks outgoing mail for compliance with NRC and local procedures and postal requirements.

**File Duties:**

Determines proper file classification and cross-referencing of a variety of materials to be filed by subject and cross-referenced to detailed descriptive subheadings. Establishes and maintains files, consolidates new material with previously filed material, expands or combines files when necessary.

Locates and withdraws records or information from files when instructions for finding subject material requested are often very general or vague.

Checks files for retirement or for destruction in accordance with established procedures.

Types tabs on folders and other related materials and performs other duties as required.

**ANALYSIS**

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**BASIC SKILLS**

135

Initiative and judgment are required in the application of pertinent regulations, procedures, and instructions.

Ability to sort communications into proper categories.

Ability to learn organizational structure and procedures sufficient to read and route mail correctly to a substantial number of points.

Ability to learn the NRC requirements applicable to the handling and processing of classified and unclassified mail.

Ability to handle all inquiries in a tactful and expedient manner.

Ability to learn and understand the NRC Subject Filing System in order to locate files and background material, as requested, frequently based on general or vague instructions.

Ability to learn the NRC Subject Filing System sufficiently to read, assign code symbols, file material, and establish new subject files.

Ability to learn NRC security instructions and regulations sufficient to insure proper handling of classified material.

Typing skill sufficient to type tabs on folders and other related material.

---

**CONTACTS**

Continuous contact in person and by telephone with different levels of personnel within the office in coordinating mail distribution and pickup.

Occasional contact with the Division of Security on matters pertaining to the transmitting of classified material and informing them of any irregularities.

Continuous contact with all levels of personnel requesting information about location of files, file use, and types of files needed.

---

**RESPONSIBILITY FOR DECISIONS**

70

Supervision Received

Mail and File Room Supervisor.

General Supervision "B".

Guides are applicable chapters of the NRC Management Directives System dealing with the handling and control of classified and unclassified material, postal rules and regulations, NRC Subject Filing System, NRC Security Regulations, office and division procedures.

Independent Action

Entries in a control log on correspondence requiring special handling.

Retires or destroys material in accordance with approved records disposition schedules.

Assigns code symbols and files material received.

Determines when material should be cross-referenced to other file subjects.

Establishment, consolidation, and expansion of files as determined to be necessary.

Maintenance of control and index records of classified material and special files.

Work Accepted Without Review

Reads and routes mail to predetermined points.

Checks outgoing mail for compliance with existing regulations.

Files returned records.

---

**SUPERVISION EXERCISED**

None.

---

**WORKING CONDITIONS**

10

Works in a congested area, with numerous interruptions to the work.

---

**EFFORT**

10

Effort consists of some standing, walking and lifting of mail pouches and mail for distribution.

Filing activities involve the performance of standing, stooping, and walking. Some lifting of records involved in making file searches.

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**TOTAL SCORE**

260

**EVALUATION OF GS-1 - 15 POSITIONS**

CLERK-TYPIST, GS-0322-4

**BENCHMARK**

**FUNCTIONAL STATEMENT**

Performs clerk-typist duties for a section or a branch.

**REGULAR DUTIES**

Types statistical or tabular material, correspondence, and reports in final form expeditiously and accurately without the typing of an intermediate rough draft. Material to be typed involves complicated spacing arrangements, selection from a number of reports and other sources, and must be arranged in accordance with instructions indicating the general nature and purpose of the paper or presentation.

Responsible for correctness of spelling, grammar, and format of final copy.

Maintains the section or branch files in accordance with NRC file procedures and records disposition schedules.

Makes and receives phone calls for professional personnel of the section or branch. Refers calls to appropriate personnel. Supplies items of information which require understanding of the section or branch functions and organization or work. Receives and distributes incoming mail, attaching appropriate files or documents as necessary.

Responsible for the completion and proper assembly of outgoing correspondence for the signature of a branch or section chief regardless of complexity or the specialized terminology involved.

**ANALYSIS**

---

**BASIC SKILLS**

155

Proficiency in typing sufficient to type neat and accurate statistical and tabular reports, tables, and presentations expeditiously and accurately in final form requiring skill in selection and arrangement of material in accordance with general instructions and complex spacing requirements.

Ability to acquire knowledge of NRC filing and administrative procedures and filing skills necessary to maintain the section or branch files accurately.

Ability to learn the organizational and functional responsibilities necessary to distribute mail correctly and refer callers to appropriate individuals.

Ability to answer incoming phone calls politely, efficiently, and refer all calls to the proper personnel.

---

**CONTACTS**

40

Continuous contacts with clerical and professional staff for receiving work assignments and furnishing information.

Frequent telephone and personal contacts to furnish information and direct callers to the proper individuals requiring some explanation to develop accurate understanding and to verify facts.

---

**RESPONSIBILITY FOR DECISIONS**

75

Supervision Received

Chief of branch or section to which assigned.

General Supervision "B".

Guidelines are NRC File and Correspondence Manuals, office and branch procedures.

Independent Action

Works out details for accomplishing typing assignments, such as proper format, spacing, selection, and arrangement of material.

Answers and routes telephone calls, directing callers to appropriate personnel. Supplies specific items of information which are in common use and readily available. Responsible for the completion and proper assembly of outgoing correspondence for the signature of a branch or section chief.

Work Accepted Without Review

Maintenance of the section or branch file system is not subject to review except through section or branch members' use of files and records.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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5

Normal office environment.

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**EFFORT**

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5

Normal clerical.

---

**TOTAL SCORE**

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280

EVALUATION OF GS-1 - 15 POSITIONS

MAIL CLERK, GS-0305-4

BENCHMARK

FUNCTIONAL STATEMENT

Performs mail operations, which may involve classified material, in the central mail room of the NRC.

REGULAR DUTIES

Receives, sorts, and analyzes communications into such categories as mail to be opened, mail to be routed unopened, and mail to be recorded or given special handling (such as classified or docket communications).

Opens, reads, and routes mail that is not thoroughly addressed, requiring knowledge of NRC organizational structure, distribution of functional responsibilities, and specialized and technical terminology in order to determine appropriate distribution for action and information. Opens, date stamps, and controls correspondence and materials from public utilities and other government agencies pertaining to nuclear power plants, opening all mail coming from utility companies and government agencies addressed to designated NRC organizations. Verifies presence of attachments or enclosures in mail to be opened and, if needed, reproduces sufficient copies for distribution. Sorts unopened mail to the various NRC building locations to reach organizations or individuals assigned to these locations.

Maintains control and count of incoming and outgoing mail items (e.g., registered, certified, and docket) for use in reports.

ANALYSIS

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BASIC SKILLS

150

Ability to analyze and sort communications into proper categories for handling.

Knowledge of NRC organizational structure, functions and specialized terminology sufficient to read and route mail to appropriate locations.

Knowledge of procedures pertaining to the handling of all classes of mail and NRC manual chapter applicable to the handling and processing of classified and unclassified mail.

Ability to cope with and handle numerous inquiries from within and outside the agency in a tactful and expedient manner.

---

CONTACTS

35

Continuous contact in person and by telephone with clerical personnel within the NRC in coordinating mail flow in conformance with individual office requirements.

Frequent contact with the local post office for coordinating mail pickup and delivery service.

Occasional contacts with the Division of Security on matters pertaining to the transmitting of classified material and informing them of any irregularities.

---

RESPONSIBILITY FOR DECISIONS

70

Supervision Received

Supervisor, Central Mail Room.

General Supervision "B".

Guides are NRC manual chapters dealing with the handling and control of classified and unclassified material, mail processing, regulations, and established internal procedures.

Independent Action

Establishes and maintains a control log on correspondence requiring special handling.

Work Accepted Without Review

Reads and routes mail to predetermined points.

Assigns control numbers to correspondence requiring special handling.

---

**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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10

Works in a congested area with many interruptions and works out-of-doors, at times in inclement weather, coordinating mail pickup and delivery.

---

**EFFORT**

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15

Sustained physical effort consisting of standing, walking, lifting large packages, parcels, and mail pouches.

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**TOTAL SCORE**

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280

EVALUATION OF GS-1 - 15 POSITIONS

CLERK-STENOGRAPHER, GS-0312-4

BENCHMARK

FUNCTIONAL STATEMENT

Serves as a clerk-stenographer for a section or a branch, performing stenographic and general clerical duties.

REGULAR DUTIES

Takes dictation covering correspondence, reports, and memoranda. Dictation is normally dictated without regard to the recording speed of the clerk-stenographer and without interruption by the clerk-stenographer. Takes and transcribes shorthand notes of telephone conversations, meetings, and conferences.

Types final copy from notes, longhand drafts, or dictating equipment without requiring a typed intermediate rough draft, even when specialized terminology is involved.

Ensures that correspondence is correct regarding punctuation, capitalization, spelling, grammar, and NRC correspondence procedures.

Screens incoming mail and delivers mail to appropriate personnel.

Answers the telephone, takes messages, and refers callers to the proper individuals. Supplies specific items of information which require understanding of the section or branch functions and organization of work.

Maintains correspondence and records files.

ANALYSIS

BASIC SKILLS

160

Must be a qualified stenographer and familiar with the operation of dictation transcribing equipment. Ability to become familiar with and to understand technical terms.

Ability to compose routine correspondence, to edit notes, letters, and reports to ensure proper grammar, construction, spelling, punctuation, and conformance with correspondence procedures.

Ability to acquire knowledge of NRC correspondence and file procedures necessary to maintain area files.

Ability to deal with telephone callers and other personnel tactfully.

Proficiency in typing sufficient to type neat and accurate correspondence, reports, tables, etc. expeditiously and accurately in final form without an intermediate typed rough draft. The material to be typed may contain highly specialized scientific or technical terminology and may also require complicated spacing arrangements, such as numerous columns or internal sub-divisions.

CONTACTS

40

Continuous contacts with clerical and middle management levels of personnel within the branch and division for the purpose of receiving and exchanging information in regard to work assignments.

Frequent telephone and personal contacts to furnish information requiring some explanation to develop accurate understanding and to verify facts.

RESPONSIBILITY FOR DECISIONS

75

Supervision Received

Chief of a section or branch.

General Supervision "B".

Guidelines are NRC File and Correspondence Manuals, office and branch procedures.

Independent Action

Refers correspondence to the proper individual, and answers the telephone and refers calls to appropriate personnel. Supplies specific items of information which are of common use and readily available. Responsible for completion and proper assembly of outgoing correspondence for the signature of a branch or section chief.

Work Accepted Without Review

Maintenance of area files is not subject to review except through section or branch members' use of files and records.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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5

Normal clerical.

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**EFFORT**

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5

Normal.

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**TOTAL SCORE**

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285

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**EVALUATION OF GS-1 - 15 POSITIONS**

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TELEPHONE OPERATOR, GS-0382-4

**BENCHMARK****FUNCTIONAL STATEMENT**

Serves as Telephone Operator, performing both operation and information duties on the day shift and serving as sole operator on a rotational basis on the unsupervised swing shift.

**REGULAR DUTIES**

Places and receives local and long-distance and a substantial number of special overseas calls, including conference and appointment calls, collect calls, transferred charge calls, and calls where information is incomplete and must be developed. Performs circuit routings to complete priority calls, long-distance, and overseas calls and maintains constant surveillance over the switchboard, responding appropriately to the visual and audio signals of the Centrex System and equipment. Calls are handled sequentially as they are placed and come in and, therefore, range from local and regular long-distance to special long-distance and overseas calls.

Provides central telephone locator services for the NRC, supplies numbers, extensions, names, organizational and functional information, interrogating callers in depth to determine precise nature of the question.

Information calls frequently require several minutes or longer to ascertain nature of the question or inquiry and develop facts necessary to refer the call to the responsible individual or organization. Utilizes knowledge of NRC functions and programs, organizational subdivisions, individuals' latest organizational changes, and personnel moves to direct caller and reduce number of unnecessary referrals to the minimum.

Serves as sole operator on the unsupervised swing shift, performing both information and operation functions and providing secretarial answering services for the Commissioners and other top-level members of the Nuclear Regulatory Commission. Places and receives local, regular, and special long-distance calls involving routing of priority and other calls, traces and locates individuals, refers emergency calls to assigned duty officers or appropriate NRC officials, and exercises judgment to ascertain need to contact NRC staff during off-duty hours. Time Zone differences throughout the world use to substantial activity throughout most of the 24-hour period, 35%.

Maintains records of certain telephone activities, such as Federal Telecommunications System trouble reports and commercial long-distance calls such as outgoing paid, outgoing collect, and incoming collect. Keeps record of collect calls and outgoing long-distance calls by recording date, time and date of call, total time of call, name of caller, name and number of recipients of calls, and toll charges as provided by the charge operator. Prepares bills and maintains records with respect to receipt and collection.

Performs miscellaneous other duties as assigned.

**ANALYSIS**

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**BASIC SKILLS**

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150

Knowledge of telephone procedures, network priority systems, and standards. Ability to operate the various elements of the telephone system. Ability to learn the basic mission of NRC, the complete organizational structure and functional responsibilities, and location of principal personnel.

Ability to acquire familiarity with available reference material and files (e.g., telephone directories, personnel locator files, organization charts, itineraries of Commissioners and top management, and emergency procedure plans).

Good judgment, courtesy, tact, initiative, ability to work under pressure in dealing with telephone calls to and from the highest levels of government and business.

Additional requirements are good speech and voice modulation and good hearing.

Ability to maintain files accurately and neatly.

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**CONTACTS**

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Continual telephone contact with personnel at all levels in NRC, government, and business to complete telephone calls, respond to inquiries, elicit information, relay messages, and locate personnel. Telephone contacts require considerable tact and discretion, and impact on relations with the public.

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**RESPONSIBILITY FOR DECISIONS**

70

Supervision Received

Chief, Telephone and Message Center.

General Supervision "B".

Supervisor available during working hours Monday through Friday; otherwise unsupervised.

Guidelines are NRC Manuals; written and oral local procedures; itineraries of Commissioners and top management; internal and external telephone directories; and Congressional Directory.

Independent Action

When on unsupervised work shift, exercises full responsibility for switchboard activities including determining necessity for calling high-level NRC staff members, duty officer, or others.

Chooses routings and alternate routings.

Determines appropriate referral of information calls.

Prepares and maintains records of long-distance calls and "trouble" reports.

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**WORKING CONDITIONS**

10

Employee is required to sit for an extended period of time and wear earphones, facing console constantly, and is subject to abrupt console signals.

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**EFFORT**

10

Employee's undivided attention to console signals is required for an extended period of time.

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**TOTAL SCORE**

290

EVALUATION OF GS-1 - 15 POSITIONS

WORD PROCESSING OPERATOR, GS-0322-4

BENCHMARK

## FUNCTIONAL STATEMENT

Serves as a Word Processing Operator in section of the Central Regulatory Electronic Stenographic System (CRESS). Is responsible for complete preparation of assigned documents; recording (typing), revising, checking to assure consistency in format and terminology, checking typed copy for accuracy, making corrections and returning to originator. Documents mainly consist of technical, diversely formatted reports, such as: technical specifications, regulatory guides, safety evaluations, environmental statements, Commission papers, and special task force reports. Assignments are characterized by such difficulties as complicated space arrangements and need to select, combine and rearrange material from different source documents. Operates typewriter, automated text editing systems with cathode-ray tube display, automated document printers, and high-speed telecommunications features available for preparing these documents.

## REGULAR DUTIES

Operator is assigned work with a CRESS Control Sheet attached which indicates that work is to be prepared in draft, redraft, or final form, and gives size of paper and spacing to be used. Documents or sections of documents assigned range in size from 10 to 500 pages. Special task force reports may total 4,000 pages and are assigned to several operators and to different CRESS sections at one time. Operator scans document, determines proper format if other than standard, and checks with originator regarding any discrepancies.

When using the automated text-editing typewriter, operator records (types) initial draft document and prepares, in one operation, a hard copy for the originator, CRESS tissue copy, and magnetic cards for each page. When revising a document previously recorded on the typewriter, operator advances through the text to make the required changes, "scans" each page, makes hyphenation decisions for readjusted text, and stores each page on magnetic cards, which will be played back unattended on the document printer. Equipment must be coded with line and page length for revised text to be automatically adjusted.

When using the information processor (automated text-editing system), operator inputs document information into electronic memory either by recording or reading in previously recorded magnetic cards; input appears on visual display screen (cathode-ray tube) as it is typed or recalled. Screen shows number of lines input and prompt "pagination" when page length previously designated is reached. Operator advances through text to make required changes and then stores the information on a diskette, while at the same time creating a magnetic card for playback on unattended document printer.

Operator uses the procedures necessary for unattended playback of documents on the Document Printer, including designating use of one or both drawers of different paper size and envelope compartment when needed. Operator prepares a control card indicating formatting, type style and type style changes, as well as number of copies required. Operator then stacks up to 200 magnetic cards into the printer and is free to continue on another job while printer is automatically playing back document.

Prepares control cards for communicating documents or document cards only from information processors and document printers to communicating equipment in other sections.

Scans finished copy of work for correct punctuation, capitalization, spelling, and special instructions or format. Operator then takes work to proofreader who will mark up copy, return to operator, and operator makes corrections.

Is aware of the deadline required for completion of the work and requests from supervisor assignment of other operators to help with the task when problems arise concerning its timely completion.

Responsible for preparing the more difficult types of work: reports containing statistical charts, tables, chemical and mathematical equations, double- or triple-columned text, comparative text and right-handed justified reports.

Occasionally assists less experienced operators with terminology, format and coding techniques in operation of text-editing typing and printing equipment.

Occasionally relocated to other CRESS sections when assistance with heavy workload, difficult or top priority work is required.

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ANALYSIS

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BASIC SKILLS

155

Knowledge of GPO Style Guide, CRESS Operator Handbook (contains samples of standard formats, terminology, recording procedures for text-editing equipment, etc.), NRC Correspondence Handbook, Instruction Manuals for word processing equipment and technical, medical and geographical reference manuals. Ability to clearly understand and use the automated typewriter, the information processor, the document printer, and the coding techniques involved in use of the equipment for automatic playback: 1) center headings, 2) underscore, 3) indent text (paragraph indent), 4) set up or change line and page length, 5) change spacing for mathematical or chemical equations, 6) merge variable information from two or more sources, 7) manipulate paragraphs, footnotes and sections, 8) align columns of number (decimal tab), 9) adjust text to established right margin with hyphenation decision (scanning) including right margin justification, 10) delete characters, words, lines, or pages, and 11) duplicate text.

Specialized experience in specific technical areas of CRESS operation: special format coding for a variety of documents, expedient methods for setting up statistical charts, mathematical/scientific equations lengthly and frequent footnotes, double- and triple-columned text, and merging information from various sources.

Ability to function as a resource for less experienced operators learning this type of work.

Skill in performing well under pressure and with the concentration and endurance necessary for multi-page projects demanding effort over several days.

Ability to complete assignments from beginning to end including recording, assuring consistency of format and terminology, checking with originator for discrepancies, revising, checking, correcting and returning to originator without supervisory or proofreader control. Work must be of such high quality that only spot checks by supervisor or proofreader are necessary.

Ability to work harmoniously with others in a high pressure, production/pool-type atmosphere.

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CONTACTS

40

Frequent contacts with professional NRC staff clarifying discrepancies or work being prepared.

Contact with word-processing equipment service personnel pertaining to problems in mechanical operation of equipment.

Occasional contact with representatives of text-editing systems companies, either in training classes set up in CRESS sections or at training offices of equipment manufacturers.

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RESPONSIBILITY FOR DECISIONS

75

Supervision Received

CRESS Section Supervisor

General Supervision "B".

Guidelines are GPO Style Manual, CRESS Operator Handbook, NRC Correspondence Manual, and Instruction Manuals of IBM MC-II, Information Processors, Document Printers, and Communications Features.

Independent Action

Determines proper format for documents when other than standard. Determines which codes of typing and printing equipment are necessary for the most expeditious processing of work.

**EVALUATION OF GS-1 - 15 POSITIONS**

NRC Appendix 4130-A  
S&C-90

Analyzes and determines codes required for expedient revision and playback of work, including correcting ca improperly coded at NRC contractor laboratories and sent to CRESS To prepare in final form, as well as car prepared by new operators in CRESS sections.

Assists less experienced operators in the basic and advanced operations of text-editing typewriters, systems and printers.

**Work Accepted Without Review**

Responsible for complete preparation of documents assigned by supervisor. This includes typing, checking with originator regarding discrepancies, revising, checking typed copy for accuracy, making corrections, and returning document to originator. Documents are reviewed, however, by a proofreader before final submission to the originator.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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10

Work is of a confining nature; operator sits at automated typewriter eight hours a day.

Works in an area with several automated typewriters and printers which produce a considerable amount of noise. There is also distraction of constant influx of persons delivering, checking status or picking up work processed.

---

**EFFORT**

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10

Work requires considerable physical and visual effort that causes fatigue. Work requires high degree concentration and endurance, especially when working on difficult equations, tables, and multi-column text.

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**TOTAL SCORE**

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290

FILE CLERK, GS-0305-5

## BENCHMARK

## FUNCTIONAL STATEMENT

Serves as a File Clerk in the Subject Files Section, Records Facilities Branch. The Section maintains the centralized official subject matter files for NRC.

## REGULAR DUTIES

Receives documents for centralized file, including all types of correspondence, communications, reports, Commission-Action papers, licensing, project, and other material related to the functions of NRC. Examines documents to determine whether they are records being returned to file, documents requiring coding before file, records to be sent to the Docket File system and not the Subject Files, extraneous files of no record value to be destroyed or returned to originator.

Reads and analyzes the material to be filed in the subject files to determine file classification and appropriate cross reference. Codes and files documents in accordance with the NRC Manual Chapter (0222) and NRC filing systems, using the standard NRC Primary File categories and over 1,000 subject matter subdivisions. Classifies all types of NRC material covering many different and difficult technical professional and scientific as well as administrative and management subjects. Determines appropriate cross reference to other file subjects and prepares indices for filing. When documents and material cannot be correlated with established files, recommends filing and coding arrangement to expand or contract files to correlate with changes in the nature of the material.

Searches files to obtain material requested by NRC offices and for FOIA information. Requests relate to a wide variety of technical subjects encompassing the scope of NRC functions, and information furnished with the requests is often vague, incorrect, incomplete, and provides scant detail to assist in the search. When necessary, supplements material from central files with material from files maintained in NRC divisions and offices, explaining the nature of the material needed to provide complete reference material.

Performs other work such as the maintenance of control and index records for both classified and nonclassified documents, the review of files for retirement or destruction, and related duties as assigned.

## ANALYSIS

## BASIC SKILLS

165

Knowledge of the overall NRC Filing System, the centralized file and its many subject matter breakdowns to classify, cross reference, and locate material.

Sufficient knowledge of technical, scientific, and specialized terminology in a variety of subject matter fields to grasp the content of difficult and complex material, select the most descriptive classification, and provide adequate cross reference to facilitate the location of the material in connection with the subjects to which it relates.

Ability to analyze numerous documents per day and interpret proper coding with minimum amount of time.

Ability to know NRC Security instructions and regulations to insure proper handling of classified material.

Ability to deal tactfully and diplomatically with all levels of personnel. Must be able to work willingly with others and work under pressure.

## CONTACTS

40

Continuous contact with NRC personnel requesting information from the files and use of the files. Contacts are normally with secretarial and clerical staff of the Commission.

Frequent contact with professional staff to give or obtain information regarding material in the file.

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RESPONSIBILITY FOR DECISIONS

80

Supervision Received

Chief, Subject Files Section.

General Supervision "B".

Guides are NRC Filing Manual, Records Management instructions, Security procedures, and written and oral instructions pertaining to coding, filing, and records handling.

Work Accepted Without Review

Reviews and applies coding to subject file material. Determines material to be cross referenced and prepares indices sufficient to describe documents. Retires or destroys material in accordance with disposition schedule.

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SUPERVISION EXERCISED

None.

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WORKING CONDITIONS

10

Works in a congested area, with numerous interruptions to work.

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EFFORT

Filing activities involve the performance of standing, stooping, and walking. Some lifting of books and boxes of records involved in making files searches.

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TOTAL SCORE

305

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EVALUATION OF GS-1 - 15 POSITIONS

SECRETARY, GS-0318-5

BENCHMARK

FUNCTIONAL STATEMENT

Serves as a secretary to the chief of a branch.

REGULAR DUTIES

Reviews outgoing correspondence which is being submitted to the branch chief for signature or clearance for format, accurate typing, conformance with NRC and local correspondence procedures, and to determine that all necessary background material is attached.

Receives and reviews all incoming mail to the branch and attaches related files and documents for use in taking action on the correspondence. May be responsible for handling classified documents.

Takes and transcribes dictation in such forms as letters, memoranda and reports which may be highly technical in nature.\* Types letters, memoranda, reports, and staff papers in final form from handwritten rough drafts.

Establishes and maintains subject-matter files within a branch filing system in connection with work under the control of the branch chief. Establishes or revises files as deemed necessary to meet the current need for the material.

Acts as a receptionist for the branch when individuals call in person, and receives incoming telephone calls. Based on a knowledge of the branch operation, routes callers to the proper section or individual. May respond personally to inquiries regarding routine instructions or procedures where nontechnical information is concerned.

Arranges appointments and conferences for the branch personnel; reserves conference rooms and assists in setting up conference rooms.

May orally relay messages and instructions from supervisor to the subordinates, when nontechnical matters are concerned.

Makes travel arrangements for the branch personnel.

ANALYSIS

BASIC SKILLS

165

Must be a qualified stenographer.\*

Proficiency in typing sufficient to prepare correspondence, memoranda, reports, etc., quickly and accurately, from handwritten rough drafts.

Knowledge of proper grammar, spelling, punctuation, NRC Correspondence Manual, local instructions and procedures regarding the preparation of correspondence, including the handling of classified documents, adequate to prepare correspondence, tabulations, and reports.

Knowledge of branch organization and functions sufficient to distribute mail and refer telephone calls and callers to proper individuals.

Knowledge of branch organization and functions sufficient to respond to inquiries regarding routine instructions or procedures where nontechnical information is concerned.

Ability to comprehend and follow general instructions and relay oral instructions accurately.

Knowledge of NRC security regulations sufficient to handle classified documents properly.

Ability to deal tactfully and effectively with other people.

Knowledge of NRC and local procedures adequate to prepare all travel arrangements.

Knowledge of NRC and local filing procedures sufficient to establish and maintain branch files.

\*Stenographic duties are neither grade controlling nor necessary for the designation of positions as secretarial.

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CONTACTS

50

Continuous contact with professional and clerical staff within and outside of the branch to give and receive information and instructions relative to procedural aspects of the assigned functions of the branch and for the purpose of resolving discrepancies in data in reports and other administrative matters. Occasional contacts with clerical, subprofessional, and professional staff to set up conferences and arrange for materials needed in conjunction with such conferences.

Frequent contacts with telephone and personal callers in response to requests for information and directs them to the proper individual.

---

RESPONSIBILITY FOR DECISIONS

80

Supervision Received

Branch Chief.

General Supervision "B".

Guidelines are the NRC Correspondence and Filing Manuals and applicable chapters of the NRC Manual pertaining to the preparation of correspondence for signature; replying to priority mail; receipt, control, and handling of classified documents.

Independent Action

Routes telephone and personal callers to appropriate branch personnel. May provide answers to inquiries from callers regarding routine instructions or procedures when nontechnical information is involved.

Reviews mail for the branch and routes the correspondence to proper individuals within the branch.

Reviews and makes corrections to spelling, grammar, punctuation, or format on branch correspondence.

Work Accepted Without Review

Filing and recordkeeping duties are not subject to specific review, except through branch members' use of files and records.

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SUPERVISION EXERCISED

None.

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WORKING CONDITIONS

5

Normal office conditions.

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EFFORT

5

Normal.

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TOTAL SCORE

305

## WORD PROCESSING OPERATOR, GS-0322-5

## BENCHMARK

## FUNCTIONAL STATEMENT

Serves as a senior Word Processing Operator in section of the Central Regulatory Electronic Stenographic System (CRESS). Is responsible for complete preparation of assigned documents; recording (typing), revising, checking to assure consistency in format and terminology, checking typed copy for accuracy, making corrections and returning to originator. Documents mainly consist of technical, diversely formatted reports, such as: technical specifications, regulatory guides, safety evaluations, environmental statements, Commission papers, and special task force reports. Operates automated text-editing typewriter and systems with cathode-ray tube display, automated document printers, and high-speed telecommunications features available for preparing these documents. Typically assigned the longest, most complex documents which require coordinating the work of other processing operators on portions of the total assignment and considerable editing and direct communications with originators of the documents.

## REGULAR DUTIES

Operator is assigned responsibility for coordinating sections of large documents; assuring consistency of typed sections with regard to format and terminology, and assuring that enough time is allowed for checking of sections prepared by less experienced operators. Operator is aware of deadline required for completion of the work and requests from supervisor assignment of other operators to help with the task when problems arise concerning its timely completion.

Operator is responsible for preparing the most difficult types of work: reports containing statistical charts, tables, chemical and mathematical equations, double- or triple-columned text, comparative text and right-hand justified reports.

Operator is assigned work with a CRESS Control Sheet attached which indicates that work is to be prepared in draft, redraft, or final form, and gives size of paper and spacing to be used. Documents or sections of documents assigned range in size from 10 to 500 pages. Special task force reports may total 4,000 pages and are assigned to several operators and to different CRESS sections at one time. Operator scans document, determines proper format if other than standard, and checks with originator regarding any discrepancies.

When using the automated text-editing typewriter, operator records (types) initial draft document and prepares, in one operation, a hard copy for the originator, CRESS tissue copy, and magnetic cards for each page. When revising a document previously recorded on the typewriter, operator advances through the text to make the required changes, "scans" each page, makes hyphenation decisions for readjusted text, and stores each page on magnetic cards, which will be played back unattended on the document printer. Equipment must be coded with line and page length for revised text to be automatically adjusted.

When using the information processor (automated text-editing system), operator inputs document information into electronic memory either by recording or reading in previously recorded magnetic cards; input appears on visual display screen (cathode-ray tube) as it is typed or recalled. Screen shows number of lines input and prompts "pagination" when page length previously designated is reached. Operator advances through text to make required changes and then stores the information on a diskette, while at the same time creating a magnetic card for playback on unattended document printer.

Operator uses the procedures necessary for unattended playback of documents on the Document Printer, including designating use of one or both drawers of different paper size and envelope compartment when needed. Operator prepares a control card indicating formatting, type style and type style changes, as well as number of copies required. Operator then stacks up to 200 magnetic cards into the printer and is free to continue on another job while printer is automatically playing back document.

Prepares control cards for communicating documents or document cards only from information processors and document printers to communicating equipment in other sections.

After completing document, operator checks the copy and marks corrections on draft copy, makes corrections on final copy, and returns it to originator. Make constructive comments and suggestions to originator for changes of format and use of standard terminology. Goes directly to originator on such matters and for clarification of material and format questions.

Operator assists less experienced operators with terminology, format and coding techniques in operation of text-editing typing and printing equipment.

Operator occasionally relocated to other CRESS sections when assistance with heavy workload, difficult or top priority work is required.

ANALYSIS

**BASIC SKILLS**

165

Knowledge of GPO Style Guide, CRESS Operator Handbook (contains samples of standard formats, terminology, recording procedures for text-editing equipment, etc.), NRC Correspondence Handbook, Instruction Manuals for word processing equipment.

Ability to complete assignments from beginning to end including recording, editing, assuring consistency of format and terminology, checking with originator for discrepancies, revising, checking, correcting and returning to originator without supervisory or proofreader control. Work must be of such high quality that only spot checks by supervisor or proofreader are necessary.

Ability to clearly understand and use the automated typewriter, information processor, the document printer, and the coding techniques involved in use of the equipment for automatic playback: 1) center headings, 2) underscore, 3) indent text (paragraph indent), 4) set up or change line and page length, 5) merge variable information from two or more sources, 7) manipulate paragraphs, footnotes and sections, 8) align columns of numbers, 9) adjust text to established right margin with hyphenation decision including right margin justification, 10) delete characters, words, lines, or pages, and 11) duplicate text.

Skill in correcting codes improperly recorded by less experienced operators.

Specialized experience in specific technical areas of CRESS operation: special format coding for a variety of documents, expedient methods for setting up statistical charts, mathematical/scientific equations lengthy and frequent footnotes, double- and triple-columned text, and merging information from various sources.

Ability to function as a resource for less experienced operators learning this type of work.

Skill in performing well under pressure and with the concentration and endurance necessary for multi-page projects demanding effort over several days.

Ability to work harmoniously with others in a high pressure, production/pool-type atmosphere.

**CONTACTS**

50

Frequent contacts with professional NRC staff clarifying discrepancies or work being prepared, and suggesting changes in format and use of correct standard terminology to originators.

Contacts with other word processing personnel to coordinate large jobs which have been broken down into assignments for others. Give deadlines, answers procedural questions and ascertains progress and status of work.

Contact with word-processing equipment service personnel pertaining to problems in mechanical operation of equipment.

Occasional contact with representatives of text-editing systems companies, either in training classes set up in CRESS sections or at training offices of equipment manufacturers.

**RESPONSIBILITY FOR DECISIONS**

80

Supervision Received

CRESS Section Supervisor

General Supervision "B".

Guidelines are GPO Style Manual, CRESS Operator Handbook, NRC Correspondence Manual, and Instruction Manuals of equipment manufacturers.

Independent Action

Independently contacts originators of material and recommends changes in format, standard terminology, and editing matters to conform with standard practices.

Determines proper format for documents when other than standard. Determines which codes of typing and printing equipment are necessary for the most expeditious processing of work.

EVALUATION OF GS-1 - 15 POSITIONS

Analyzes and determines codes required for expedient revision and playback of work, including correcting cards improperly coded at NRC contractor laboratories and sent to CRESS To prepare in final form, as well as cards prepared by new operators in CRESS sections.

Work Accepted Without Review

Responsible for complete preparation of documents assigned by supervisor. This includes typing, checking with originator regarding discrepancies, revising, checking typed copy for accuracy, making corrections, and returning document to originator. Only spot checks of work are made by supervisor to ensure consistent high quality.

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SUPERVISION EXERCISED

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None.

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WORKING CONDITIONS

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10

Work is of a confining nature; operator sits at automated typewriter eight hours a day.

Works in an area with several automated typewriters and printers which produce a considerable amount of noise. There is also distraction of constant influx of persons delivering, checking status or picking up work processed.

---

EFFORT

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10

Work requires considerable physical and visual effort that causes fatigue. Work requires high degree of concentration and endurance, especially when working on difficult equations, tables, and multi-column text. Operator is frequently under pressure of top priority work, and occasionally works overtime past daily schedule and on weekends and holidays.

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TOTAL SCORE

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315

EVALUATION OF GS-1 - 15 POSITIONS

SECRETARY, GS-0318-6

BENCHMARK

FUNCTIONAL STATEMENT

Serves as the principal secretary of a branch.

REGULAR DUTIES

Bears overall responsibility for the proper operation of the branch system for handling controlled correspondence or action items in a timely and efficient manner. Maintains awareness of status of controlled correspondence or action items within the branch. May be responsible for handling classified documents.

Bears primary responsibility for all outgoing branch correspondence, reports, memoranda, etc., to assure that the material has been finally proofread for grammatical correctness, that it is complete and that it conforms in the format, style, and appearance required for the document by Commission, office, division, or branch procedures.

Takes and transcribes dictation in such forms as letters, memoranda, and reports, which may be highly technical in nature.\* Types letters, memoranda, reports, and staff papers in final form from handwritten rough drafts.

As requested, provides advice and assistance to the professional and clerical staff on the proper procedures for the preparation and clearance of correspondence, reports, staff papers, and controlled correspondence assigned to the branch.

Receives telephone calls and visitors, referring them to the proper individual for consideration. Places telephone calls and makes appointments for the professional staff based on requests from them. Responds personally to inquiries of a routine nature involving nontechnical information.

As requested, arranges conferences or meetings for the professional staff, making all necessary arrangements for conference rooms, audiovisual equipment, or any other materials required.

May relay instructions to professional staff members, collect and summarize nontechnical data from individuals for the branch chief when requested.

Is responsible for the complete preparation of travel requests, reservations, etc., necessary for official travel of branch personnel. Responsible for the preparation of travel vouchers, trip reports, etc., based on information provided by the traveler.

Bears primary responsibility for establishing and maintaining an adequate filing system for the branch. Establishes or revises files as deemed necessary. Responsible for the disposal of records in accordance with an approved records disposition schedule.

Assists the supervisor by shifting and balancing work among the supervisor's clerical staff in order to handle the workload more efficiently. Determines when typing workload requires outside help from CRESS or other units, and makes arrangements for such help.

ANALYSIS

BASIC SKILLS

180

Must be a qualified stenographer.\*

Proficiency in typing sufficient to prepare correspondence, memoranda, reports, etc., quickly and accurately, from handwritten rough drafts.

Thorough knowledge of proper grammar, spelling, punctuation, NRC correspondence manual, and special considerations of style, format, and procedures required by Commission, office, division, or branch regarding the preparation of all forms of correspondence, reports, and staff papers. Knowledge of NRC security regulations adequate to handle classified documents properly. Thorough knowledge of Commission, office and division correspondence control systems adequate to assure the proper operation of those systems in the branch. Must have sufficient knowledge to advise professional and clerical staff on the procedures for preparation and clearance of correspondence, reports, memoranda, etc.

\*Stenographic duties are neither grade controlling nor necessary for the designation of positions as secretarial.

Knowledge of branch organization and functions sufficient to properly route mail and personal or telephone callers to the proper individuals and to respond personally to inquiries regarding routine matters involving nontechnical information. Ability to deal tactfully and effectively with people.

Knowledge of branch priorities sufficient to distribute and balance work among the branch's clerical staff in order to handle fluctuating workloads efficiently.

Knowledge of NRC travel regulations sufficient to complete travel requests and vouchers properly.

Knowledge of the NRC filing system sufficient to establish, maintain, and revise branch files, including records disposition schedules, with only a limited amount of assistance from the branch chief or professional records management personnel.

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**CONTACTS**

55

Continual contact with professional and clerical staff within and outside the branch to give and receive information and instruction relative to the procedural aspects of the assigned functions of the branch, and for the purpose of resolving discrepancies in procedural and administrative matters.

Frequent contacts with telephone and personal callers to respond to requests for information and direct them to the proper individual.

Occasional contacts with clerical, subprofessional, and professional staff to set up conferences and arrange for materials needed in conjunction with such conferences.

---

**RESPONSIBILITY FOR DECISIONS**

85

Supervision Received

Branch Chief.

General Supervision "B".

Guidelines are the NRC Correspondence and Filing Manuals and applicable chapters of the NRC Manual pertaining to the preparation of correspondence, receipt, control, and handling of classified documents.

Independent Action

Refers telephone and personal callers to proper individual. Determines when correspondence, memoranda, reports, etc. are correct regarding grammar, punctuation, spelling, and format, and are in final readiness for signature by the branch chief.

Establishes priority of items constituting clerical workload and shifts and balances work among the branch clerical staff in order to handle fluctuating workloads efficiently and effectively. Personally responds to questions of a routine, nontechnical nature.

Work Accepted Without Review

Establishment, maintenance, and revision of files are not subject to specific review, except through branch members' use of files and records.

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**SUPERVISION EXERCISED**

None.

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**WORKING CONDITIONS**

5

Normal office conditions.

EVALUATION OF GS-1 - 15 POSITIONS

EFFORT

5

Normal.

TOTAL SCORE

330

**EVALUATION OF GS-1 - 15 POSITIONS**

**SECRETARY, GS-0318-7**

**BENCHMARK**

**FUNCTIONAL STATEMENT**

Serves as the principal secretary to the director of a division which reports to a staff office.

or

Serves as the principal secretary to the director of a small staff office which reports to the Commission or Executive Director for Operations.

or

Serves as the principal secretary to an assistant director of a division which reports to a major program office.

**REGULAR DUTIES**

Reviews outgoing correspondence, reports, memoranda, etc., to assure that the material has been finally proof-read for grammatical correctness, that it is complete, and that it conforms in the format, style, and appearance required for the document by Commission, office, or division procedures.

Takes and transcribes dictation in such forms as letters, memoranda, and reports, which may be highly technical in nature.\* Types letters, memoranda, reports, and staff papers in final form from handwritten rough drafts.

Receives telephone and personal callers and, when the Assistant Director is away, in conference, or otherwise unavailable, determines those calls which in the secretary's judgment can be handled by the supervisor's subordinates or other offices and tactfully refers them as appropriate. Personally takes care of many matters and questions not requiring scientific or technical knowledge but rather a general knowledge of the NRC organization and a detailed knowledge of division functions and procedures.

As requested, arranges conferences or meetings, making all necessary arrangements for conference rooms, audio-visual equipment, or any other materials required.

Keeps the Assistant Director's calendar and schedules tentative appointments without prior clearance. Keeps a record of commitments made by the Assistant Director in phone calls, meetings, etc., to assist the Assistant Director in assuring timely and efficient follow-up on such commitments.

Is responsible for the complete preparation of travel requests, vouchers, itineraries, reservations, etc., necessary for the Assistant Director's official travel.

Assures the Assistant Director that the branches' systems for handling controlled correspondence or action items are operating in a timely and efficient manner. Maintains awareness of status of controlled correspondence or action items within the branches.

As requested, provides advice and assistance to branch personnel on the proper procedures for the preparation and clearance of correspondence, reports, staff papers, and controlled correspondence assigned to the division.

**ANALYSIS**

**BASIC SKILLS**

200

Must be a qualified stenographer.\*

Proficiency in typing sufficient to prepare correspondence, memoranda, reports, etc., quickly and accurately from handwritten rough drafts. Knowledge of proper grammar, spelling, punctuation, and all applicable NRC correspondence procedures sufficient to review for correctness, proper format, and completeness, any correspondence for the Assistant Director's signature or concurrence.

Knowledge of the division's organization and functions as well as the Assistant Director's operating methods sufficient to determine which calls, in the Assistant Director's absence, can be handled by the supervisor's subordinates or handled personally.

Knowledge of NRC and division functions sufficient to answer inquiries regarding the division when scientific or technical knowledge is not required.

\*Stenographic duties are neither grade controlling nor necessary for the designation of positions as secretarial.

Knowledge of NRC travel regulations and local procedures sufficient to make all travel arrangements for the Assistant Director and prepare related travel documents.

Must be able to deal tactfully and efficiently with all personnel.

Knowledge of controlled correspondence systems sufficient to be continually aware of the status of controlled correspondence within the branches reporting to the Assistant Director.

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**CONTACTS**

65

Continuous contacts with professional and clerical staff within and outside of the division to give and receive information and instructions and to resolve procedural and administrative aspects of the assigned functions of the division and/or office.

Frequent contact with top level Federal and industrial executives, and representatives of State and local governments who call by telephone or in person, in which considerable tact and diplomacy are needed. Contacts may require judgment and persuasion in referring a caller to a more appropriate organizational entity.

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**RESPONSIBILITY FOR DECISIONS**

90

Supervision Received

Office Director or; Division Director or; Assistant Director of a major, complex division.

General Supervision "B."

Guidelines are NRC Correspondence and Filing Manuals and local correspondence procedures.

Independent Action

Routes telephone calls and visitors to the proper division personnel.

Maintains awareness of the status of controlled correspondence and action items within the branches reporting to the Assistant Director.

Answers questions concerning procedural matters not requiring scientific or technical knowledge.

Insures that outgoing correspondence, reports, memoranda, etc., are grammatically correct and are in conformance with NRC and local procedures.

Makes tentative appointments for the supervisor without prior clearance.

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**SUPERVISION EXERCISED**

None.

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**WORKING CONDITIONS**

5

Normal office conditions.

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**EFFORT**

5

Normal.

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**TOTAL SCORE**

3

**EVALUATION OF GS-1 - 15 POSITIONS**

**SECRETARY, GS-0318-8**

**BENCHMARK**

**FUNCTIONAL STATEMENT**

Serves as the principal secretary to the director of a division which reports to a major program office.

or

Serves as the principal secretary to the director of a medium size staff office reporting to the Executive Director for Operations.

**REGULAR DUTIES**

Reviews outgoing division correspondence, reports, memoranda, etc., to assure that the material has been finally proofread for grammatical correctness, that it is complete, and that it conforms in the format, style, and appearance required for the document by Commission, office, or division procedures.

Takes and transcribes dictation in such forms as letters, memoranda, and reports, which may be highly technical in nature.\* Types letters, memoranda, reports, and staff papers in final form from handwritten rough drafts.

Receives incoming telephone calls and personal callers, determining the identity of the caller and nature of the call. In a situation in which many of the calls must be diverted, determines which must be directed to the supervisor, which can be taken care of personally, and which can be referred elsewhere. When the calls involve matters on which the supervisor will require background information, may tactfully postpone the conversation, obtaining the required information, and presenting it when the supervisor is informed of the pending call.

Makes arrangements for conferences including space, people, time, equipment, etc. Informs participants of topics to be discussed and supplies them with needed background information.

Attends meetings, upon request, and prepares summary accounts.

Assures Director that the system for handling controlled correspondence or action items is operating in a timely and efficient manner. Maintains awareness of status of controlled correspondence or action items within the division. Makes recommendations for changing the division correspondence system in order to facilitate the inward and outward flow of division correspondence.

Reviews correspondence and action items ready for the signature or concurrence of the Director to assure that all pertinent offices have cleared the item. Calls to the attention of the Director the adequacy and appropriateness of the distribution of copies of outgoing correspondence. Makes recommendations for additions or deletions based on personal knowledge of the division's relationship with other organizations. May handle classified documents.

Keeps the supervisor's calendar and makes appointments usually without prior clearance. Advises supervisor of appointments, meetings, etc., and coordinates and adjusts schedule as necessary.

Serves in a liaison capacity between the supervisor and other divisions, offices, or branches in administrative matters.

Interviews and makes preliminary selections of clerical, stenographic, and other secretarial employees in the Office of the Director. Assists the supervisor's subordinates in the procedural aspects of expediting the work of the division, including such matters as shifting clerical help in subordinate offices to take care of fluctuating workloads.

**ANALYSIS**

**BASIC SKILLS**

230

Must be a qualified stenographer, capable of completing difficult stenographic assignments, which may involve technical language.\*

Typing ability sufficient to type letters, memoranda, reports and staff papers in final form from handwritten rough drafts without typing an intermediate draft and without error.

\*Stenographic duties are neither grade controlling nor necessary for the designation of positions as secretarial.

Knowledge of the division's organization and functions, as well as the Deputy Director's or Director's operating methods sufficient to determine which calls, in the Deputy Director or Director's absence, can be handled by other subordinates, or handled personally. Ability to determine when calls involve matters on which the supervisor will require background information, to tactfully postpone the conversation, to obtain the necessary information, and to provide the information to the supervisor when informing him/her of the pending call.

Knowledge of proper grammar, spelling, punctuation, and any applicable NRC correspondence procedures sufficient to review for correctness, proper format, and completeness, any correspondence for the Deputy Director or Director's signature.

Knowledge of the division's programs sufficient to be able to record highlights, important commitments, and decisions made during meetings, and prepare a summary account of the events.

Knowledge of the division's controlled correspondence system sufficient to assure that the system is operating in a timely and efficient manner and to recommend changes to improve the inward and outward flow of correspondence.

Knowledge of the division's program relationships with other components of NRC sufficient to assure the Director or Deputy Director that all pertinent offices have cleared controlled correspondence or action items and to assure the adequacy and appropriateness of the distribution of outgoing correspondence.

Knowledge of the division and organization functions and programs sufficient to answer substantive questions not requiring research or technical knowledge in order to serve as liaison between the division and other organizations on administrative matters.

Sufficient knowledge and ability to make preliminary selection of clerical, stenographic, and other secretarial employees in the supervisor's organization. This requires both interviewing skill and the ability to judge relative merits of applicants.

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#### CONTACTS

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Continuous contacts with all levels of divisional personnel in carrying out assigned duties.

Frequent contacts with professional and clerical staff of other divisions and offices to coordinate the clearance of correspondence, memoranda, staff papers, etc., and perform administrative liaison.

Frequent contacts with high-level Federal and industrial executives, Members of Congress, and representatives of State and local governments in which considerable tact and diplomacy are needed. Contacts require judgment and persuasion in referring a caller to a more appropriate organizational entity.

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#### RESPONSIBILITY FOR DECISIONS

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95

##### Supervision Received

Office Director or; Division Director.

General Supervision "B."

Guidelines are NRC Correspondence Manual and applicable chapters of the NRC manual pertaining to the preparation of correspondence for signature;

replying to priority mail; receipt, control, and handling of classified documents. Division policies also serve as guidelines.

##### Independent Action

Routes telephone calls and visitors to the appropriate individual within the division.

Maintains awareness of status controlled correspondence and action items within the division.

Serves in a liaison capacity between the supervisor and other divisions, offices or branches in administrative matters.

Determines the adequacy and appropriateness of the distribution of copies of outgoing correspondence and makes recommendations for additions or deletions.

**EVALUATION OF GS-1 - 15 POSITIONS**

Makes preliminary selection of stenographic, clerical, and other secretarial employees in the supervisor's organization.

Makes appointments for the supervisor without prior clearance.

Determines priority of clerical workload within the division and shifts and balances work between the clerical staff to help handle the fluctuating workload efficiently and effectively.

Recommends changes to the division's controlled correspondence system.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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5

Normal office conditions.

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**EFFORT**

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5

Normal.

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**TOTAL SCORE**

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405

EVALUATION OF GS-1 - 15 POSITIONS

SECRETARY, GS-0318-9

BENCHMARK

FUNCTIONAL STATEMENT

Serves as the principal secretary to the director of a staff office which reports directly to the Commission and maintains complex administrative relationships with most of NRC's other organizational components.

or

Serves as the principal secretary to the director of a large staff office which reports to the Executive Director for Operations and maintains complex administrative relationships with most of NRC's other organizational components.

REGULAR DUTIES

Reviews outgoing office correspondence, reports, memoranda, etc., to assure that the material has been finally proofread for grammatical correctness, that it is complete, and that it conforms to the format, style, and appearance required for the document by Commission or office procedures. Returns unacceptable submissions for retyping or recomposition.

Takes and transcribes dictation for the director in such forms as letters, memoranda, and reports in situations that, in some cases, due to their importance and urgency, must be done without error in the first draft.\*

Receives incoming telephone calls and personal callers, determining the identity of the caller and nature of the call. Callers may include the White House staff, Members of Congress, high-ranking government officials, foreign diplomats, etc. Determines whether the importance of business, rank, or position of the caller is such as may require the personal attention of the director or if the caller should be referred to the appropriate division concerned with the subject.

Upon request from the director, independently makes total arrangements for conferences including space, people, time, equipment, etc. Informs participants of topics to be discussed. Assembles and distributes needed background material.

Attends meetings, upon request, and prepares summary accounts for subsequent distribution to attendees.

Assures the director that the system for handling controlled correspondence or action items is operating in a timely and efficient manner. Maintains continual awareness of the status of controlled correspondence or action items within the office or divisions reporting to the office.

Makes final review of correspondence and action items ready for the signature or concurrence of the director to assure that all pertinent offices have cleared the item. In addition, calls to the attention of the director the adequacy and appropriateness of the distribution of copies of outgoing correspondence. Makes recommendations for additions or deletions based upon personal knowledge of the office's relationships with other organizations. May handle classified documents.

Keeps the director's calendar and makes appointments, usually without prior clearance. Advises the director of appointments, meetings, etc., and coordinates and adjusts schedule as necessary. With a view of optimum use of the director's time, makes appointments with: NRC staff, representatives from the White House, Members of Congress, other high-ranking government officials, foreign diplomats, and representatives of the news media.

Serves in a liaison capacity between the director and other offices and divisions in administrative matters.

Interviews and makes preliminary selections of clerical, stenographic, and other secretarial employees in the office of the director. Assists the office director and subordinates in the procedural aspects of expediting the work of the office.

Performs duties in connection with the official travel of the director, involving assisting in the planning of his itinerary so that the greatest use of his/her time away from the office is made, making reservations, informing places to be visited of the proposed visit, itinerary, and people to be contacted, and preparing vouchers upon completion of such travel.

On own initiative recommends revisions to our establishment of office procedures or policies regarding administrative matters.

\*Stenographic duties are neither grade controlling nor necessary for the designation of positions as secretarial.

ANALYSIS

BASIC SKILLS

235

Must be a qualified stenographer, capable of completing difficult stenographic assignments which may involve top priority work and stringent deadlines.\*

Typing ability sufficient to type letters, memoranda, reports, and staff papers in final form from handwritten rough drafts without typing an intermediate draft and without error.

Knowledge of the office's organization and functions and relationships with other components as well as the director's operating philosophy sufficient to: determine whether the importance of business, rank, or position of callers is such as to require the personal attention of the director, or if the call can be referred to the appropriate division concerned with the engineering or scientific subject; (2) be able to record highlights, important commitments, and decisions made during meetings or conferences and prepare a summary account of the events; (3) assure the director that all pertinent offices have cleared controlled correspondence or action items and assure the adequacy and appropriateness of the distribution of outgoing correspondence; (4) answer substantive questions not requiring scientific or technical knowledge in order to serve as liaison between the office and other NRC components on administrative matters; and (5) make preliminary selection of clerical, stenographic and other secretarial employees within the director's office.

Knowledge of NRC security regulations for the handling of classified documents; knowledge of NRC travel regulations and of office functions sufficient to make all travel arrangements for the director, including assisting in the planning of the itinerary so that the optimum use of the director's time will be made.

Ability to discern the need for revision or establishment of administrative procedures or policies and knowledge sufficient to make self-initiated recommendations for any needed changes.

CONTACTS

85

Continuous contacts with all levels of office personnel in carrying out assigned duties.

Frequent contacts with professional and clerical staff in other offices and divisions to coordinate the clearance of correspondence, memoranda, staff papers, etc., and to perform administrative liaison.

Contacts with the White House, staff members of Congress, high-ranking government officials, foreign diplomats, or representatives of the news media, in which considerable tact and diplomacy are needed. Contacts require judgment and persuasion in referring a caller to a more appropriate organizational entity.

RESPONSIBILITY FOR DECISIONS

115

Supervision Received

Director of a major office or its equivalent.

General Supervision "B".

Guidelines are the NRC Correspondence Manual and applicable chapters of the NRC Management Directive System pertaining to the preparation of correspondence; replying to priority mail; receipt, control, and handling of classified documents. Office policies also serves as general guidelines.

Independent Action

Recommends revisions to or establishment of office procedures or policies regarding administrative matters. Recommends changes in the distribution of copies of outgoing office correspondence.

Maintains awareness of status of controlled correspondence and action items within the office's jurisdiction.

Determines whether or not callers require the personal attention of the director.

Determines whether outgoing office correspondence is grammatically correct, whether it is complete, and whether it conforms in the format, style, and appearance required for the document by Commission or office procedures. Determines whether or not all pertinent offices have cleared controlled correspondence or action items.

Makes appointments for the director without prior clearance.

Serves in a liaison capacity between the director and other offices and divisions in administrative matters.

Makes preliminary selection of clerical, stenographic, and other secretarial employees in the office of the director.

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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5

Normal office conditions.

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**EFFORT**

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5

Normal.

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**TOTAL SCORE**

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445

## PHYSICAL SECURITY SPECIALIST, GS-0080-11

## BENCHMARK

## FUNCTIONAL STATEMENT

Serves as Physical Security Specialist in the Facilities and Systems Security Branch, Division of Security, with responsibility for participating in establishing and maintaining the NRC physical security program to protect sensitive, privileged, and classified material as well as the physical protection of NRC Headquarters, Regional Offices and other facilities.

## REGULAR DUTIES

Provides day-to-day protection advice and assistance on the establishment and maintenance of adequate physical security for NRC Headquarters, Regional Offices, NRC contractor facilities, materials, communications, equipment, information, and personnel. Provides assistance on the application of security regulations to specific situations, advice as to changes in NRC security plans and programs, assistance on security measures required because of changes in type of work, alteration, or relocation of facilities.

Conducts inspections and monitors NRC security programs at NRC Headquarters buildings, contractors and Regional Office buildings for the purpose of assuring adequate physical security, protection of sensitive, privileged, and classified material, identifying deficiencies, and recommending improvements in areas of concern such as:

- a. alarms
- b. locks
- c. guards - orders, reports
- d. access control systems
- e. badges lost or stolen
- f. property control
- g. storage facilities
- h. management of classified material
- i. classified waste disposal
- j. receptionists
- k. infraction program
- l. emergency procedures.

Analyzes and evaluates all physical security factors throughout the facility. Meets with NRC personnel, discusses status of security program, and advises of any corrective action required. Prepares inspection reports and letters and presents briefings on inspection findings and recommendations.

Conducts inspections at NRC contractor/consultant facilities to:

- a. insure program consistent with NRC manual directives
- b. identify deficiencies
- c. recommend corrective action
- d. write inspection reports
- e. follow up on reports and deficiencies

Maintains liaison with other government agencies and industry personnel on various protection-related physical security matters.

Prepares procedures, directives, and announcements on NRC physical security programs.

Prepares and presents briefings on the NRC physical security program.

Prepares special reports of administrative inquiry and other reports requiring detailed research.

## ANALYSIS

## BASIC SKILLS

290

Knowledge of Federal-wide and NRC physical security policies, principles, standards, procedures, and regulations for interpretation and application to specific physical security projects and assignments.

Knowledge of investigative fact-finding and evaluation practices and techniques.

Knowledge of protective devices, facilities, procedures, and methods.

Ability to organize information systematically and logically for reports and oral presentations. Ability to write and give oral presentations succinctly and persuasively.

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CONTACTS

105

Contact with division directors and middle management personnel to identify problems and provide assistance in NRC security programs.

Contact, during inspections, with NRC and contractor personnel to gather information and obtain corrective action indicated as a result of inspection findings.

Contact with security personnel of other government agencies to give and receive information on physical security matters.

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RESPONSIBILITY FOR DECISIONS

10

Supervision Received

Chief, Facilities and Systems Security Branch.

General Supervision "B".

Supervisor provides instruction on scope of assignment and provides assistance on unusual problems or situations. Reports and major recommendations are reviewed for consistency with policy and soundness of recommendations.

Guidelines are NRC Manual Chapters on Security, Federal-wide physical security policies and regulations, and technical specifications and criteria utilized in the physical security industry.

Independent Action

Recommends:

Corrective action to be taken after physical security inspection of NRC or NRC contractor facility.

Decisions Made Independently

During inspections and studies determines that NRC or NRC contractor facilities are in compliance with NRC security policies and procedures.

On-the-spot determinations and advice on action necessary to correct deficiencies in security plans and programs.

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SUPERVISION EXERCISED

None.

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WORKING CONDITIONS

5

Normal.

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EFFORT

10

Some physical effort in the form of climbing, walking, and standing during inspection of facilities.

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TOTAL SCORE

5

## INFORMATION SECURITY SPECIALIST, GS-0080-12

## BENCHMARK

## FUNCTIONAL STATEMENT

Serves as Information Security Specialist in the Division of Security with responsibility for the information security program in major program areas of NRC. Is responsible for assuring the appropriate classification and declassification, accountability and protection of information and material, and for the training of personnel of assigned program areas in these matters. Organizational area of responsibility includes one or more of the primary NRC program offices, related contractor and field organizations, and several of the staff and smaller program offices as well.

## REGULAR DUTIES

Maintains continuing contact with program officials in assigned program areas to plan the manner in which the information security program should be conducted, to provide advice and assistance in the interpretation of security classification policies and procedures, and to insure their adequacy to meet program needs.

Determines information security requirements for assigned organization based upon nature of work and type of documents prepared and processed. Determines steps to be taken and develops procedures for these organizations to assure systematic review for security classification, protection of classified material, maintenance of records, and preparation of required reports.

Prepares orientation and training material to train NRC employees, contractors, and others in the proper classification and protection of classified matter. Provides orientation and training and works with organization representatives to achieve understanding of classification and declassification principles and guidelines.

Prepares proposed security classification guides specific to the work of assigned organizations to provide assistance in the classification determination. Obtains and reviews division and office comments, consulting with professional personnel to resolve problems and questionable areas. After consideration and resolution of comments and recommendations, develops guides in final form for approval and issuance by the Division of Security.

Conducts classification review and prepares written approval or disapproval for the release of documents, speeches, articles, and other material submitted to the Division of Security for security clearance. Coordinates questions on proper security classification with subject matter specialists and considers their comments in preparing Division of Security position.

Notifies and explains decisions to program officials and authorized classifiers to insure uniform interpretation of classification policy. Reviews questions of classification referred informally by operating organizations because of their questionable nature and provides classification advice and basis for conclusions.

Conducts downgrading/declassification reviews under provisions of public information policies, the Freedom of Information Act, National Security Act as amended, Energy Reorganization Act, National Security Council Directives, and Executive Order 11652 to insure that public release is in the interest of the national welfare and will not adversely affect the national defense and security. Based upon review, prepares recommendations for approval of the Division of Security.

Periodically appraises the effectiveness of the information security program in assigned offices and divisions. Spot checks actions taken, reviews records and reports, discusses actions and procedures with operating personnel. Prepares report of findings and comments and recommendations to offices and divisions based upon such appraisals. Follows through to assure that appropriate corrective action is taken where necessary.

## ANALYSIS

## BASIC SKILLS

340

Thorough knowledge of information security concepts and the ability to plan, organize, and regulate a program to classify, declassify and otherwise protect information and material.

Knowledge of the NRC classification and declassification policies sufficient to analyze existing guides and prepare new or revised guides where required.

Familiarity with concepts of physical services and engineering sufficient for an understanding of NRC programs and their relationship to the NRC classification and information security programs.

Ability to present and justify NRC information security requirements to appropriate personnel.

Ability to effectively represent the NRC in meetings with representatives of other government agencies concerning information security and security of information exchange programs.

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CONTACTS

110

Continuous contact with NRC personnel to formulate plans for conduct of information security program, develop guidance on specific programs and projects, interpret and explain classification and information security policies and guidance, and to resolve specific problems.

Frequent contact with senior technical and professional staff to obtain judgment on reports or data submitted for classification review and to explain the bases for security classification as applied to specific reports or data.

Frequent contact with representatives of other government agencies to establish and maintain working arrangements and to assure proper interagency classified information flow.

Occasional contact with top level management on security questions or problems of unusual significance.

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RESPONSIBILITY FOR DECISIONS

135

Supervision Received

Chief, Information Security Branch.

General Supervision "B".

Guidelines are NRC classification policies, Code of Federal Regulations, Energy Reorganization Act of 1974, National Security Act, as amended, Freedom of Information Act (FOIA), as amended, Executive Orders 11652 and 11905, National Security Council Directives and Security Memoranda, and Director Central Intelligence Directive

Independent Action

Represents division in meetings and conferences with representatives of other agencies to present and explain NRC classification and information security policies and practices.

Provides guidance and advice to NRC offices and divisions on classification matters.

Recommends:

Changes in NRC classification and information security policies to meet needs of assigned organizations.

Classification or declassification release of material under public information and FOIA programs.

Division of Security comments on security effectiveness appraisals of assigned organizations.

NRC position on working agreements with members of the intelligence community.

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SUPERVISION EXERCISED

None.

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WORKING CONDITIONS

5

Normal.

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EFFORT

Normal.

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TOTAL SCORE

595

Approved: April 30, 1980

## PLANT PROTECTION ANALYST, GS-0080-12

## BENCHMARK

## FUNCTIONAL STATEMENT

Assists in the execution and administration of a program of physical protection of nuclear plants against sabotage or diversion of special nuclear materials to unauthorized use. Evaluates license applications as to adequacy of physical protection provisions, and recommends appropriate license conditions. Recommends standards and criteria for the physical protection of plants and participates in the preparation and review of these standards and criteria.

## REGULAR DUTIES

Reviews and evaluates proposed licensee physical protection equipment and programs. Determines the adequacy of information presented in license applications, or modifications to existing licenses, relative to requirements for physical protection of plants against sabotage or diversions of nuclear materials. New applications or licensee plants assigned present normal range of physical security problems. Physical security matters reviewed include proposed guard force (numbers of guards, training, numbers of stations, arrangements of stations, and shift arrangements); facilities, equipment, and hardware (alarms, sensing devices, viewing monitors, fences, walls, portals, etc.); and policies and procedures which make for tying together all physical security matters into systems and programs within plants.

Prepares drafts of license amendments for materials and plant protection, specifying the conditions to be incorporated in specific licenses with respect to the protection of special nuclear materials and the plants that process such material.

Evaluates inspection reports of licensee materials and plant protection programs to determine if regulatory conditions are performing their intended functions and recommends appropriate changes to specific protection programs. Identifies the possible needs for improved technical security systems, devices, and equipment for licensee's physical protection programs.

Assists senior plant protection analysts by participating as a member of plant visit team with responsibility for reviewing specific portions of a plant's physical security program.

Prepares portions of generic studies applicable to several plants.

## ANALYSIS

## BASIC SKILLS

350

Several years of experience and training in and detailed knowledge of physical protection policies, requirements, techniques, and concepts sufficient to assist in the development of physical protection standards and criteria and to review security programs proposed in nuclear fuel plants. Such experience should include management or participation in the management of physical security programs in industrial plants including management of guard force, physical arrangements, equipment and hardware, and development of policies and procedures.

Ability to evaluate technical data pertaining to equipment, devices, and systems, including arrangements for guard force, hardware, and facilities, to summarize the technical and administrative aspects of physical protection programs so as to reach rational conclusions of desirable actions and to present the problems or issues and recommended actions and improvements clearly for the consideration of nontechnical management officials of both the NRC and licensed industry.

Working knowledge and familiarity with nuclear fuel plant facilities and processes sufficient to apply appropriate physical security concepts and measures.

Knowledge of the Atomic Energy Act of 1954, as amended, and the rules and regulations issued in its implementation.

Ability to communicate clearly and precisely, orally and in writing, on a variety of physical security matters.

## CONTACTS

105

Frequent contacts with licensees and applicants to obtain and provide factual information needed in the evaluation of their physical protection plants, programs, and procedures. Such contacts include explaining NRC requirements and persuading and negotiating as to how these requirements can be met so as to assure safeguarding of material while minimizing costs to licensees and applicants.

Continuing contacts with NMSS staff and Regional Offices of the Office of Inspection and Enforcement on matters pertaining to technical policies, standards, and procedures, and site specific licensing matters.

Occasional contacts with staff officials of NRC offices other than the Office of Inspection and Enforcement to resolve general matters concerning technical and administrative problems of mutual interest.

Occasional contact with business and scientific management and other industrial representatives to exchange information.

Occasional contact with officials of Federal and State agencies to discuss regulatory plant protection programs.

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RESPONSIBILITY FOR DECISIONS

130

Supervision Received

Chief, Physical Security Branch.

General Supervision "B".

Guidelines are NRC regulations and technical report issuances and publications.

Independent Action

Reviews and evaluates licensee's proposed and existing facility and materials protection programs.

Drafts terms and conditions for materials and plant protection for incorporation into licenses.

Discusses with licensees and applicants additional measures necessary to assure plant protection.

Recommends approval or disapproval of applicants' physical security programs and licensee modifications.

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SUPERVISION EXERCISED

None.

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WORKING CONDITIONS

5

Normal office conditions. Frequent travel involved.

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EFFORT

5

Normal.

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TOTAL SCORE

595

**EVALUATION OF GS-1 - 15 POSITIONS****MATERIAL CONTROL ANALYST, GS-0801-12****BENCHMARK****FUNCTIONAL STATEMENT**

Reviews and evaluates licensees' proposals and programs for material control and accounting; participates in the development of appropriate regulatory requirements for the safeguarding of strategically important special nuclear materials against diversion to unauthorized uses. Assists in material control and accounting studies providing bases for new license requirements.

**REGULAR DUTIES**

Reviews and evaluates licensees' and applicants' material control and accounting programs, including material accountability, measurement systems, measurement quality control programs, internal material control systems, information flow and data evaluation systems, and management control plans. Applications or licenses involve the normal range of material control and accounting problems. Assures that material control and accounting systems proposed by licensees and applicants will track and record physical and chemical changes to fuels and nuclear materials as they undergo fabrication and processing.

Prepares material license amendments, specifying the conditions to be incorporated in licenses with respect to special nuclear materials. Recommends changes and improvements to material control and accounting programs of licensees and applicants to assure that NRC standards and requirements are met.

Conducts portions of studies on materials control and accounting to provide technical bases for the evaluation of new processes and operations and license conditions.

Recommends proposals for research and development programs designed to support regulatory requirements in the safeguarding of special nuclear materials.

**ANALYSIS****BASIC SKILLS**

360

Professional education or training equivalent to a bachelor's degree in chemistry, physics, engineering, or closely related field, from an accredited college or university.

Broad knowledge of physical sciences (such as chemistry, engineering, physics, and metallurgy), as well as statistics, and accounting-auditing to develop and implement requirements for safeguarding special nuclear materials. These knowledges are necessary to analyze the physical and chemical changes to fuels and nuclear materials as they undergo fabrication and processing. These physical and chemical changes cause changes in the amount and nature of material, byproducts, and wastes at various phases of plant processing. The incumbent must assure that material control and accounting systems will track and record these changes.

Knowledge of nuclear material processing and measurement systems to review and evaluate the effectiveness of plant safeguards systems.

Knowledge of the Atomic Energy Act of 1954, as amended, Energy Reorganization Act of 1974, and the rules and regulations issued in their implementation.

**CONTACTS**

110

Frequent contact with applicant or licensee technical personnel, middle business and scientific management, consulting scientists and administrators, and other representatives of industry organizations to explain the regulatory materials and plant protection programs, to discuss proposed programs, to discuss the results of special studies and testing programs, and to persuade applicant or licensee personnel of the need for improvements and changes to material control and accounting programs.

Occasional contact with officials of Federal and State agencies to discuss the regulatory materials and plant protection program.

Continuous contact with the NRC technical staff throughout Headquarters and the field to obtain and provide factual information on material control and accounting matters.

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RESPONSIBILITY FOR DECISIONS 140

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Supervision Received

Chief, Material Control Licensing Branch.

General Supervision "B".

Guidelines are NRC regulations and guides, and technical report issuances and publications.

Independent Action

Reviews and evaluates adequacy of license applications, and recommends action to be taken regarding issuance or denial of a license.

Drafts terms and conditions pertaining to materials control and accounting for incorporation into licenses. Such terms and conditions include improvements and changes devised by the incumbent to systems proposed by the licensees and applicants. Must assure that material control and accounting procedures will preclude diversion of material or give early warning of the possibility of diversion of materials.

Reviews adequacy of the materials control and accounting program, and suggests improvements based on experience.

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SUPERVISION EXERCISED 5

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None.

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WORKING CONDITIONS 5

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Normal office conditions. Frequent travel involved.

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EFFORT 5

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Normal.

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TOTAL SCORE 620

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## PHYSICAL SECURITY SPECIALIST, GS-0080-13

## BENCHMARK

## FUNCTIONAL STATEMENT

As a member of the inspection staff in a Regional Office, plans and conducts the regulatory inspection program of physical protection of special nuclear material at fixed sites and in transit and against acts of industrial sabotage, and conducts special investigations as assigned by the Regional Director. Plans and conducts the more complex physical security inspections involving multiple units (two or more reactors at a site).

## REGULAR DUTIES

Personally conducts or leads a team of physical security specialists in the inspection of more complex nuclear plants or fuel facilities. The facilities are difficult from a physical security standpoint in that they involve multiple units at a site, large guard forces, large numbers of visitors, hardware compatibility questions, numerous access control points, etc.

Plans and conducts security inspections of licensees assigned to Regional Office. An inspection includes a review and evaluation of the licensee's implementation of the appropriate security plan pertinent to protection of the nuclear material at the site and in transit, and to protection of the site against acts of industrial sabotage. The principal steps involved in conducting these are:

- a. Identifies licensee organizational units responsible for the functional areas of responsibility and authority which approve specific action.
- b. Prepares working papers to evidence work accomplished and conclusions reached with respect to the function being inspected and adherence to the written policies and procedures which have been issued by the licensee. Through oral inquiry or questionnaires, obtains and summarizes, as appropriate, information on policies and procedures which have not been reduced to writing.
- c. Interviews licensee personnel to determine extent to which policies and practices are understood and followed, how lines of authority actually function and whether or not authority limits were consistently applied.
- d. Conducts or participates in meetings of licensee management of NRC representatives for the discussion of conclusions reached during inspections.
- e. Prepares a comprehensive security inspection report containing findings and recommendations.
- f. Prepares appropriate correspondence to licensees detailing security inspection results.
- g. Conducts entrance and exit interviews with licensee management personnel.

Monitors intransit shipments of special nuclear material to ascertain that appropriate regulations are being followed by the licensee and common carrier.

Acts as consultant on physical security matters to other members of the Regional Office staff. Advises on physical security implications of findings of specialists in other inspection areas.

Keeps informed of research and development work in the field of physical protection security technology to assure that developments having potential application to assigned facilities are considered for introduction into the security regulations and guides and inspection program.

## OCCASIONAL DUTIES

Participates in, or personally executes, investigations as assigned by the Regional Director. Such investigations involve the gathering and reporting of facts, evidence and other information in connection with particular licensee activities (or particular activities of nonlicensed persons who possess, use, receive, transfer, import, or export materials, or facilities regulated by the NRC) as a part of the regional investigative program.

## ANALYSIS

## BASIC SKILLS

410

Broad knowledge of physical protection philosophies, policies, hardware, systems, and concepts sufficient to develop physical protection inspection procedures and to perform such inspections.

Knowledge and current awareness of the scientific and technical aspects associated with the processing and accounting for special nuclear materials to the extent necessary to perform security inspections and assigned investigations.

Knowledge of applicable governmental statutes, rules, and regulations of the Commission concerning the regulatory physical security program.

Skill in the preparation and presentation of comprehensive and concise inspection reports, both orally and in writing.

Ability to recognize critical areas in which expansion of coverage must be effected and areas in which inspection activities may be curtailed.

Ability to establish and maintain effective working relationships with NRC personnel in the Office of Inspection and Enforcement and with personnel in private industry.

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**CONTACTS**

125

Continuous contact with audit, scientific, and technical personnel within the Regional Office to share inspection findings and to advise on physical security questions which arise out of inspection findings in other specialty areas. Frequent contact with technical personnel, top and middle business and scientific management of licensee industrial organizations to inspect, report upon inspection findings, and to explain and defend the bases for inspection findings.

Frequent contact with security specialists at other regional offices to resolve general matters concerning technical and administrative problems of mutual interest.

Occasional contact with safeguards staffs in Headquarters to resolve questions and problems related to regional physical security inspections.

Occasional contact with officials of other Federal agencies to provide or obtain information on security related inspections which is of mutual interest to such agencies.

Occasional contact with the I&E staff, Headquarters, for incidents and matters specifically assigned by the Regional Director for investigation.

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**RESPONSIBILITY FOR DECISIONS**

135

Supervision Received

Chief, Security and Investigation Section.

General Supervision "B".

Guidelines are provided by the NRC Manual, pertinent parts of Title 10 of Code of Federal Regulations, and policies and instructions of I&E relating to the execution of safeguards security inspections.

Independent Action

Recommends acceptance or rejection of proposals to revise security inspection procedures.

Recommends corrective action as related to security procedures as a result of security inspections and special investigations of licensees.

Since recommendations, upon review of security procedures and their implementation at an installation, may involve expenditure of time, effort, and funds, considerable competence and experience is required. Recommendations, if in error, may lead to improper reliance in related security protection aspects of the safeguards program.

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**SUPERVISION EXERCISED**

None.

**EVALUATION OF GS-1 - 15 POSITIONS**

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**WORKING CONDITIONS**

**15**

Majority of time under typical office conditions. Approximately 30-40% of time is spent in field inspections or investigations. Frequently, field inspections or assigned investigations are made with exposure to usual plant hazards, exposure to inclement weather, and the need to use protective clothing and equipment.

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**EFFORT**

**15**

The field work requires irregular work hours, extensive standing, walking, and climbing; also, moderate physical effort in traveling to perform security inspections and/or assigned special investigations.

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**TOTAL SCORE**

**700**

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## PLANT PROTECTION ANALYST, GS-0080-13

## BENCHMARK

## FUNCTIONAL STATEMENT

Assists in the execution and administration of a program of physical protection of nuclear plants against sabotage and against diversion of nuclear materials to unauthorized uses. Reviews and evaluates license applications as to adequacy of physical protection provisions, and recommends appropriate license conditions. Conducts in-depth studies of alternative protection programs, and assists in the development of appropriate regulatory requirements. Recommends standards and criteria for the physical protection of plants, and participates in the development and preparation of licensing criteria, standards, and guides.

## REGULAR DUTIES

Reviews and evaluates proposed licensee physical protection equipment and programs. Determines the adequacy of information presented in license applications, or modifications to existing licenses, relative to requirements for physical protection of plants against sabotage or diversions of nuclear materials, and physical protection of special nuclear material during transportation between facilities. New applications or licensee plants assigned are the most complex and important ones encountered in the Physical Security Licensing Branch and are characterized by one or more of the following difficulties and complexities (or comparable ones):

- a. The fuel fabrication, enrichment, or reprocessing plant contains many complex processes which make physical security protection procedures difficult.
- b. Plants and equipment contain high concentration of material which could be diverted or sabotaged.
- c. The physical design and layout of the plant make for unusual difficulties in providing for physical security.
- d. The plant has a history of physical security problems which require correction.

Prepares license amendments for materials and plant protection, specifying the conditions to be incorporated in licenses with respect to the protection of special nuclear materials and the plants that process such material. Assesses the effectiveness of on-site physical security systems. Conducts generic studies of physical security problems applicable to several licensed plants. Proposes appropriate improvements in hardware, personnel, and procedures used for plant protection.

Identifies need for, recommends, and prepares initial drafts of standards, guides, and criteria for the physical protection of licensed plants and materials.

Evaluates inspection reports of licensee materials and plant protection programs to determine if the regulations and applicable license conditions are achieving the intent for which they were designed.

Communicates directly with applicants and licensees by plant visits, telephone, and correspondence to obtain information and provide guidance on physical security matters. Acts as the senior NRC physical protection licensing representative in meetings and contacts with applicants and licensees, as necessary.

Evaluates the technical merit of research and development feasibility studies. Recommends technical security research and development programs in support of all types of electronic security systems, devices, and equipment.

Keeps informed of the latest concepts, theories, and findings of other Government agencies, and industrial organizations engaged in technical security programs, and in basic and fundamental research, to assess the relative importance of such data with respect to the scope and content of existing or proposed technical security studies to the overall technical security program.

## ANALYSIS

## BASIC SKILLS

430

Extensive experience and training in and thorough and detailed knowledge of physical protection philosophies, policies, requirements, techniques, and concepts, especially as related to protection of special nuclear materials at fixed sites and in transit.

Ability to evaluate technical data and electronic devices pertaining to security equipment or systems, and to summarize the technical and administrative aspects of physical protection programs so as to reach rational conclusions of desirable actions and to present the problems or issues clearly for the consideration of nontechnical management officials.

Knowledge of nuclear fuel plant facilities and processes and transportation procedures and methods sufficient to apply appropriate physical security methods.

Ability to communicate clearly and precisely, orally and in writing, on a variety of complex, technical physical security matters.

Knowledge of legal implications inherent in licensee physical protection programs.

Knowledge of the Atomic Energy Act of 1954, as amended, as it applies to the safeguarding of special nuclear materials and the NRC rules and regulations issued in its implementation.

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**CONTACTS**

115

Frequent contact with plant managers and technical and security personnel of applicants and licensees to obtain information or evaluate and guide physical security protection plans, programs, and procedures.

Continuing contact with NRC staff at Headquarters and Regional Offices of the Office of Inspection and Enforcement on matters pertaining to technical and administrative policies, standards, and procedures, and on intelligence matters, to discuss proposed actions or to give advice necessary for the resolution of specific problems.

Frequent contact with business and scientific management, consulting scientists, and other representatives of industrial organizations and other governmental agencies to explain the regulatory materials and plant protection program, to discuss proposed program improvements, and to evaluate the results of special studies and testing programs.

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**RESPONSIBILITY FOR DECISIONS**

145

Supervision Received

Chief, Physical Security Licensing Branch.

General Supervision "B".

Guidelines are NRC regulations for the administration of a safeguards physical protection program as found in the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974; Title 10, CFR; the NRC Management Directives System, and Regulatory Guides.

Independent Action

Recommends license amendments for materials and plant protection.

Recommends changes in technical specifications of licensees' security systems.

Recommends approval or disapproval of applicants' physical security systems.

Conducts visits to licensee plants to review, obtain information, and provide guidance on physical security matters.

Recommends improvements in the state-of-the-art of nuclear plant physical protection, including combined systems of hardware, personnel, and procedures.

Determines the adequacy of information and data supplied by applicants and licensees relative to their physical security programs and measures to safeguard nuclear materials.

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**SUPERVISION EXERCISED**

None.

**EVALUATION OF GS-1 - 15 POSITIONS**

**WORKING CONDITIONS**

**5**

Normal office conditions. Frequent travel involved.

**EFFORT**

**5**

Normal.

**TOTAL SCORE**

**700**

EVALUATION OF GS-1 - 15 POSITIONS

SAFEGUARDS RESEARCH ANALYST, GS-0080-13

## BENCHMARK

## FUNCTIONAL STATEMENT

As Safeguards Research Analyst, undertakes research assignments and projects relating to physical protection systems for detection and prevention of sabotage of facilities or unauthorized diversion or theft of nuclear materials. Such projects are designed to reinforce and improve rulemaking; licensing, inspection and enforcement, contingency planning, and central information accounting and processing.

## REGULAR DUTIES

Analyzes requests from the professional staffs of "user" organizations (e.g., NRR, I&E, NMSS), for analytical guides and methods of evaluating the nature and level of effectiveness of safeguards systems to protect nuclear facilities and materials at fixed-sites or in transit, and to react to contingencies, e.g., preparation of a guide for inspectors to evaluate the safeguards system used by a licensee including: a catalog containing evaluations and specifications of commercially available security types of equipment and devices; procedures for field evaluations of security; and criteria for assessing operational and administrative procedures.

Develops safeguard requirements considering: types of nuclear facilities; safeguards equipment and procedures; theft and/or sabotage targets; adversary actions requisite for theft or sabotage; assessment of the capability of safeguards equipment and procedures to detect, delay and, interrupt adversaries.

Confers with prospective research organizations regarding their participation under contract in the research effort: to identify, field test, and evaluate various safeguards devices and procedures; the interface of human behavioral characteristics and performance (both the safeguards operator's and the strategies, modes, and perceptions of adversary's); licensing requirements; and techniques to examine and evaluate licensee activities during operations to ensure effective safeguards management. As a result of such inquiries and analysis, prepares work scopes and program guidance for research in the desired safeguards systems.

Participates with Branch Chief in recommending an award to a research organization of a research contract for this development of data for safeguards systems design and evaluation, taking into consideration such matters as past record of achievements of the organization in this special field; capability of contractor personnel, equipment and facilities; justification for funds requested; time schedule; clarity of objectives; assurance of scientific approach and methodology; etc.

Monitors the progress of assigned research contracts to ensure compatibility with program objectives, project schedules, and cost objectives. Reviews contractors' performance of safeguards measurement and instrumentation research including work plans, computer program development, data requisition and model development, and recommends appropriate actions to the Branch Chief as regards delays, deviations, deficiencies, etc.

Maintains technical and administrative knowledge of equipment and techniques developed or under design for physical protection systems research, including among other matters: human factors research to assess guard force and adversary strategy and effectiveness, passive and active techniques to neutralize or defeat adversary situations or personnel when encountered, methods (e.g. mechanical, electronic) to prevent or detect efforts of entry by force, stealth, or deceit or to cause thefts, sabotage, or introduction of contrabands. Using such knowledge, appraises existing policies, plans, and procedures for safeguards systems and recommends changes or modifications or areas for additional research.

Evaluates the results of research reports received from contractors and assures transfer of research technologies to the respective NRC professional staffs for their specific safeguards activities. Works with computer programmers for inclusion of analytical guides in computer codes as may be appropriate. Works with NRC staff to coordinate and ensure inclusion of all data, approaches, and considerations including human factors considerations for evaluating the effectiveness of current safeguard systems.

## ANALYSIS

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BASIC SKILLS

435

A general knowledge of the safeguards problems of the civilian nuclear industry with emphasis on the design, development, and execution of programs of operational support for methods and techniques used in licensing review, inspection and enforcement, central information processing, and contingency planning activities related to safeguards.

Knowledge of the principles, techniques, and procedures for safeguarding nuclear reactor fuels, materials, and sensitive equipment from incidents of theft, sabotage, or misappropriation.

Knowledge of the latest automated or manual, passive or active protective devices, facilities, procedures, and methods and their relative value in nuclear reactor plants.

Knowledge of behavioral psychology sufficient to assess the human factors considerations in the design, use, and evaluation of safeguards devices and procedures.

Project management capability to direct contractor efforts in safeguards research projects, including assurance of the quality of work performed, maintenance of costs and schedules, and that the results of research are transferred to NRC user offices.

A functional understanding of NRC operations, particularly licensing procedures (both for reactors and fuel cycle facilities), standards development and application, and inspection and enforcement functions.

A functional understanding of NRC's contract administration, budget process, and financial control systems sufficient to independently plan, coordinate, and direct several safeguards research projects.

Skill in presenting technical material in oral or written form, and the ability to develop and prepare complete, clear, and concise reports.

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**CONTACTS**

120

Deals directly with the Chief, Operational Support Branch, and the Assistant Director for Safeguards for the purpose of reviewing or evaluating the interface of safeguard requirements with nuclear reactor operations, and their relations to the licensing review, inspection and enforcement, central information processing, and contingency planning activities.

Continuous contact with middle management technical staff of the NRC and contractors to discuss the utility of new developments in safeguards research.

Frequent contact with senior technical personnel in field offices and contractor organizations to initiate new developmental studies, to review and revise program objectives, to coordinate related program activities, to discuss contract modifications, and to evaluate program progress. In such contacts the incumbent assists in making technical and administrative judgments affecting the scope and emphasis of major program activities.

Occasional contact with NRC, DOE and contractor top-level management personnel, including directors of national laboratories and managers of operations offices, to explain the need for major redirection of programs and in securing effective coordination of a particular project with other research activities.

Occasional contact with NRC top management personnel to justify the scope of safeguards research and projects, to explain program developments, and to convince such personnel of the feasibility of specific projects.

Occasional contact with the Commission in official hearings dealing with safeguards and occasional contact with individual Commissioners and/or their assistants to brief them on technical progress of specific projects.

Occasional contact with foreign government representatives and international agencies to exchange information on safeguards research.

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**RESPONSIBILITY FOR DECISIONS**

135

Supervision Received

Chief, Operational Support Branch.

General Supervision "B".

Guidelines are office and overall NRC policy, technical reports issuances, and publications.

Independent Action

Recommends the scope, emphasis and content of safeguards research projects for operational support, developmental studies to solve unique problems, and inclusion of new research concepts in the safeguards research programs.

Continually evaluates and coordinates project results, contractor operations, test results, and determines that research activities adequately meet program goals.

**EVALUATION OF GS-1 - 15 POSITIONS**

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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**5**

Normal office conditions.

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**EFFORT**

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**5**

Normal administrative effort.

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**TOTAL SCORE**

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**700**

EVALUATION OF GS-1 - 15 POSITIONS

MATERIAL CONTROL ANALYST, GS-0801-13

BENCHMARK

FUNCTIONAL STATEMENT

Reviews and evaluates licensees' proposed programs for materials control and accounting. Develops appropriate regulatory requirements for the safeguarding of strategically important special nuclear materials against diversion to unauthorized uses. Conducts in-depth studies providing bases for new licensing requirements for materials and accounting. Assists in the development and preparation of licensing criteria, standards, and guides.

REGULAR DUTIES

Reviews, evaluates, and determines the adequacy of licensees' material control and accounting programs, including material accountability, measurement systems, measurement quality control programs, internal material control systems, information flow and data evaluation systems, and management control plans. New applications or licensee plants assigned are the most complex and important ones from a material control and accounting standpoint. They are characterized by one or more of the following difficulties or complexities (or comparable ones):

1. The fuel fabrication, enrichment, or reprocessing plant contains many complex processes which cause material control and accounting difficulties.
2. The plant involves the manufacture or processing of the type of material in which consequences of diversion would be most serious (such as plutonium or highly enriched fuel).
3. The plant has a history of material control and accounting problems which require correction.

Prepares license amendments for material control and accounting, specifying the conditions to be incorporated in licenses with respect to special nuclear materials.

Communicates directly with applicants and licensees by plant visits, telephone, and correspondence to obtain and provide information and to explain the policies, regulations, and procedures of the material control and accounting program.

Conducts in-depth studies to provide technical bases for the evaluation of new processes and operations and for the determination of the effectiveness of existing regulations and license conditions.

Provides substantive recommendations for the development of policies and regulations relative to the control and accounting of special nuclear materials.

Identifies need for, recommends, and prepares initial drafts of guides, criteria, and standards for the control and accounting of special nuclear materials.

Prepares initial drafts of licensing policies and guides to implement regulations and objectives of the regulatory materials control and accounting program.

Recommends proposals for research and development programs designed to support regulatory requirements in the control and accounting of special nuclear materials.

ANALYSIS

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BASIC SKILLS

460

Professional education or training equivalent to a bachelor's degree in chemistry, physics, engineering, or closely related field, from an accredited college or university.

Broad knowledge of the physical sciences (such as chemistry, engineering, physics, and metallurgy), statistics and accounting-auditing techniques sufficient to develop and implement requirements for safeguarding special nuclear materials.

Thorough and detailed knowledge of nuclear materials processing and measurement systems to review and evaluate the effectiveness of plant material control and accounting systems.

Detailed knowledge of the Atomic Energy Act of 1954, as amended, and the rules and regulations issued in its implementation; and the Energy Reorganization Act of 1974.

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**CONTACTS**

120

Frequent contacts with applicants, licensees, business and scientific management, consulting scientists and administrators, and other representatives of industrial organizations to explain the regulatory materials control and accounting programs, to discuss proposed programs, and to evaluate the results of special studies and testing programs.

Occasional contacts with officials of Federal and state agencies to discuss the regulatory materials and plant protection program.

Continuous contacts with the NRC technical staff throughout Headquarters and the field to obtain and provide information on material control and accounting policies, rules, guides, and procedures.

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**RESPONSIBILITY FOR DECISIONS**

145

Supervision Received

Chief, Material Control Licensing Branch.

General Supervision "B".

Guidelines are NRC regulations and guides, and technical report issuances and publications.

Independent Action

Reviews and evaluates licensees' proposed and existing material control and accounting programs.

Recommends approval/disapproval/modification of applicant's material control and accounting programs.

Drafts terms and conditions pertaining to material control and accounting for incorporation into licenses.

Reviews adequacy of the material control and accounting protection program, and suggests improvements based on experience.

Drafts regulations and licensing guides, criteria, and standards for the safeguarding of special nuclear materials.

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**SUPERVISION EXERCISED**

None.

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**WORKING CONDITIONS**

5

Normal office conditions. Frequent travel involved.

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**EFFORT**

5

Normal.

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**TOTAL SCORE**

735

EVALUATION OF GS-1 - 15 POSITIONS

SAFEGUARDS SYSTEMS ANALYST, GS-0080-13

BENCHMARK

FUNCTIONAL STATEMENT

Performs systematic analyses of safeguards capabilities and threat interactions to develop and/or ensure licensee development of safeguards contingency plans designed to effect the operational readiness of licensed production and transportation activities of the nuclear fuel cycle from the incursion, the repeal, or the defeat of adversaries engaged in or preparing acts of threat, theft, sabotage, or unauthorized diversion and use of special nuclear materials. Such responsibilities include: (a) the determination and development of concepts, materials, and requirements for incorporation into NRC regulations, standards, or guides regarding the nature and scope of licensees' contingency plans, (b) the motivation and assistance to licensees in designing their contingency plans specific to their local requirements, (c) the stimulation, assistance, and/or necessary negotiations with local enforcement agencies to achieve their active participation in such contingency plans, and (d) the design of contingency plans or model contingency plans to be used by licensed transporters of SNM based on road surveys including negotiations with local enforcement agencies.

REGULAR DUTIES

Functions as the principal analyst and planner for the development of licensee level safeguards contingency plan models and methodologies to provide motivation and guidance to licensees for systematic implementation of NRC safeguards contingency planning requirements.

Takes lead role in the development and/or modification of NRC regulations and guides on contingency planning for plants producing, transporting, or possessing SNM. Proposes essential safeguards response tasks needed to be performed by licensee and local enforcement agencies through a range of threat driven contingencies. Identifies areas to be included in licensee resource requirements. Such requirements are designed to provide for the structured, orderly, and timely response to safeguards contingencies including such matters as integration of the plan with the licensee's physical security plan; relations with LEA; responsibilities of licensees for periodic drills and tests, clues for identification of events which may signal the beginning or aggravation of safeguards contingencies; definition of specific objectives to be accomplished; issues of logistics, physical layout, transportation, systems hardware; matrix responsibility for various levels of personnel under varying circumstances.

Defines safeguards systems and capabilities and assesses operational vulnerabilities for planning contingencies. Develops alternative modes of operation to maximize responses and efficiency of existing resources available for fixed site and transportation elements.

Coordinates with licensee activities, local and State law enforcement agencies, DOE, FBI, and other Federal agencies as required to develop and implement safeguards contingency plans and to maintain readiness preparations. Particularly, as regards transportation of SNM thru a number of LEA, surveys or supervises the survey of route and negotiations with LEA and licensees in respective roles.

Meets with licensees to motivate and assist them in developing comprehensive contingency plans specific to their needs taking into account such matters as: nature of the SNM product produced or possessed; geographic location, terrain, and routes; capabilities of LEA including personnel training, interest, and equipment; local plant physical safeguards logistics, personnel, and design; variety of events to be planned; such policy constraints as nature of force to be used, use of employees' property, use of off-duty employees, jurisdictional issues, entry of Federal forces, etc.

Reviews contingency plans of licensees to ensure comprehensive coverage of all possible contingencies, for effective organizational relations with LEA, for procedures covering radiation exposure including effective and defined interaction with health physicists and plant industrial safety officials as well as health personnel of State and local jurisdictions. Meets periodically with licensees to review the currency of their plans and to motivate them on the need for constant vigilance. Reviews inspection reports for plant deficiencies in their plan. Brings to the attention of licensees new equipment and techniques for maximizing the utility of their plans.

Monitors and coordinates technical support contracts related to improvement of safeguards systems. Identifies contract support requirements, prepares Statements of Work and evaluation criteria, coordinates with representatives from Contracts, ELD, and the Controller's Office on RFP preparation, conducts evaluations and recommends contractor selection, monitors contractor performance, providing guidance as necessary.

Recommends changes and improvements for the preparation and implementation of NRC Rules and Regulatory Guides relating to safeguards contingency planning.

Monitors and recommends contractual studies to examine the applicability of various technologies and professional procedures for improving the efficiency of contingency planning and operations direction.

Maintains realistic awareness of safeguards threat capabilities and operational modes.

Maintains awareness and proficiency in current and developing theories of systems analysis.

Recommends methods and procedures for the development of safeguards contingency plans as well as techniques for their accomplishment.

Recommends improvements in existing or proposed safeguards systems.

Identifies and recommends research and development needed to achieve improved safeguards systems.

#### OCCASIONAL DUTIES

Serves as Acting Section Leader for the Plans and Operations Section when so designated.

Presents and prepares briefing information on safeguards contingency planning to explain or promote the contingency planning program.

Recommends requirements for interagency agreements in relation to the requirements of safeguards contingency plans.

Assists planning for the participants in NRC seminars with licensees and Federal agencies concerning contingency planning and crisis response.

Participates in special NRC task forces, panels, and boards (e.g., Source Selection Board) to examine safeguards systems and problems as required.

Uses the assistance of assigned professionals to accomplish phases or aspects of larger problems; for example, in the conduct of a road survey or to analyze a contingency plan for a significantly large and complex plant.

#### ANALYSIS

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#### BASIC SKILLS

475

Extensive experience in the field of systems and operations analysis or operational planning is mandatory. This experience should be at least five years in duration and include project leader responsibility and staff duties. A bachelor's degree in physical science, engineering, or mathematics or equivalent experience is very desirable. Some background in nuclear physics or engineering is very desirable. Experience in all of the following areas is required; level of responsibility and duration of such experience can vary from proficient knowledge to a professional working status.

Demonstrated skill in planning emergency response operations which involve the performance of coordinated multiple team tasks under conditions of high stress.

Staff experience demonstrating ability to formulate sound concepts and policy to produce written and oral communications, to provide formal and informal briefings, and to assure necessary staff and interagency coordination.

Working knowledge of the commercial nuclear industry and the roles of NRC and DOE in relation to the industry.

Technical skill in the analysis of systems involving combinations of human, electronic, mechanical, structural, chemical, and nuclear functions to assess system vulnerabilities and strengths.

Practical skill (through military, law enforcement, or other professional security training) in terrorist or adversary tactics and operations.

Sufficient skill to make definitive and authoritative evaluation of the technical results of studies and to effectively present the results in reports and at technical meetings.

Ability to recognize and correlate data and results from separate sub-studies, interpret their meaning, and prepare recommendations.

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#### CONTACTS

130

Frequent contact with technical and scientific personnel on the NRC staff for coordination of on-going studies and to advise on methods and procedures to obtain improved results.

Frequent contact with licensee and local and State law enforcement personnel to prepare plant specific LEA/licensee contingency plans. Advises the licensee and LEA on contingency planning methodology.

**EVALUATION OF GS-1 - 15 POSITIONS**

Occasional contact with NRC Branch Chief level and above to coordinate action and resolve specific problems that affect safeguards contingency planning and operations.

Occasional contact with officials of Federal agencies for the purpose of coordinating information and response requirements and to obtain resource availability for study efforts.

Occasional appearances before professional groups to discuss safeguards contingency plans and operations and technical questions of interest.

**RESPONSIBILITY FOR DECISIONS**

150

Supervision Received

Section Leader, Plans and Operations Section, Contingency Planning Branch.

General Supervision "A".

Supervisor provides overall objectives and general goals on a project basis.

Work assignments are defined only in a broad perspective basis. Specifics of methodology and work approach are determined by individual.

Administrative guidance is indicated in overall NRC policy. Operational guidance is generally received by way of oral instructions or action items with specific due dates.

Independent Action

Recommends goals for the NMSS safeguards contingency plans and operations program.

Recommends alternative courses of actions related to operational readiness preparations in response to expressed or implied threats.

Recommends improvements in existing or proposed safeguards systems.

Recommends research requirements for the development of safeguards technology.

Recommends requirements for interagency agreements in relation to the requirements of safeguards contingency plans.

Approves methods and techniques for accomplishing assigned tasks.

Endorses initial planning efforts designed to provide operational responses for site and transportation safeguards.

**SUPERVISION EXERCISED**

None.

**WORKING CONDITIONS**

5

Normal office conditions.

**EFFORT**

5

Normal.

**TOTAL SCORE**

76

## SENIOR PLANT PROTECTION SPECIALIST, GS-0080-15

## BENCHMARK

## FUNCTIONAL STATEMENT

Acts as the NRC authoritative expert on physical security matters covering the export of nuclear materials to foreign countries. Reviews the physical security standards and practices of foreign governments to determine their adequacy for permitting exports of U.S. nuclear materials. Makes authoritative recommendations for approval or disapproval of permits subject only to policy review. Also conducts generic studies and technical analyses on the most difficult domestic physical security issues. Proposes and develops drafts of new or revised criteria, guides, and standards.

## REGULAR DUTIES

Reviews the physical security standards and practices, including personnel provisions, hardware, systems, and procedures, of foreign governments to determine their adequacy for permitting exports of U.S. nuclear materials.

Makes authoritative recommendations for approval, disapproval, or additional conditions and requirements, covering technical physical security matters, for the export of nuclear material.

Travels to foreign countries as a member of U.S. Government interagency inspection teams to review and observe physical security facilities and systems. Represents the NRC on such teams.

Acts as the authoritative NRC spokesman on technical physical security matters in contacts with other U.S. Government and international agencies, such as Department of Commerce, DOE, State Department and the International Atomic Energy Agency, concerned with the export and safeguarding of nuclear materials.

Conducts the most difficult generic studies on physical security issues, problems, and systems applicable to a number of domestic licensed facilities. Such studies result in technically authoritative recommendations for new or revised physical security licensing criteria, standards, and guides.

Evaluates and reviews inspection reports and technical problems encountered by other plant protection analysts and reviewers to determine if the regulations and license conditions are performing their intended function. As a result of such evaluations and reviews, recommends needed research and development or new or revised criteria, standards, and guides.

Reviews and comments on, from a physical security viewpoint, proposed standards, criteria, and guides prepared by other organizations within NRC, as well as those prepared by international organizations.

Prepares policy analysis papers, technical reports, and portions of proposed legislation dealing with technical physical security matters.

## ANALYSIS

## BASIC SKILLS

530

Thorough and detailed knowledge of physical protection programs and systems, including organization and deployment of security forces, hardware systems, methods for controlling access to protected areas, procedures for protecting facilities against intrusion, and methods for neutralizing attacks on nuclear facilities.

Ability to perceive and evaluate physical security policy questions involved in the administration of the NRC regulations pertaining to the protection of nuclear facilities and special nuclear materials, both domestically and as related to export of materials.

Thorough knowledge and awareness of national policies and practices governing the export of nuclear materials.

Ability to communicate with the top management of industry and government in the implementation of licensing requirements for physical protection of nuclear facilities and material both domestically and internationally.

## CONTACTS

170

Daily communication with Regulatory and other NRC officials at the Division Director, Deputy Director, Assistant Director and Branch Chief level in order to resolve policy questions and interchange technical and procedural information. Advocates and defends important policy decisions concerning plant protection of nuclear facilities and materials both domestically and internationally.

Frequent contact with officials of other Federal agencies for the purpose of explaining the protection programs for nuclear facilities and materials and for determining the extent a licensing action may affect or relate to activities of their agencies and to the export of materials.

Frequent telephone and frequent personal communication with top business and scientific management, consulting scientists and administrators, and other representatives of industrial firms and educational institutions making applications for or inquiry concerning nuclear material licenses or requesting information on NRC programs or regulatory policies.

Frequent contact with headquarters personnel and occasional communication with field inspection personnel of the Office of Inspection and Enforcement to discuss the intent and effectiveness of and compliance with regulations and license conditions.

Occasional contact with corporate officers for purposes of clarifying and resolving regulatory problems.

Occasional contact with technical and middle management personnel or licensees to keep abreast of technical developments in licensee operations and physical protection operations.

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**RESPONSIBILITY FOR DECISIONS**

230

Supervision Received

Chief, Physical Security Licensing Branch.

General Supervision "A".

Works under general supervision guided by overall NRC policies, including applicable sections of the Atomic Energy Act, the Code of Federal Regulations and the NRC Manual.

Independent Action

Provides authoritative technical advice within and outside of NRC on physical security matters, including official technical NRC positions on physical security provisions for material to be exported.

Determines the need for branch action in response to applications for export permits and for special nuclear material licenses.

Determines the adequacy of applications for export permits pertaining to the protection of special nuclear materials and the need for requesting additional information.

Communicates with top technical and management personnel of industry and other government agencies to obtain additional information or clarification of problems concerning physical security issues.

Recommends action to be taken regarding issuance or denial of applications.

Prepares physical security safeguards terms and conditions for incorporation into licenses and permits.

Prepares proposed regulations, standards, and procedures for implementation of the physical security program.

Identifies needed research and development for improving protective methods.

Reviews adequacy of the safeguards programs and recommends improvements based on experience.

Prepares and signs correspondence within the provisions of policy.

Work Accepted with Review

Makes technical judgments as to the adequacy of physical security measures taken domestically and in foreign countries for the transportation and storage of nuclear materials.

Determines that information provided is not adequate for basing the issuance of a license or permit and independently communicates with applicants or through other agencies for the purpose of obtaining additional information or clarification of discrepancies.

Initiates requests to other divisions and offices for views and comments on specific phases of license and permit applications.

Signs licenses and related correspondence with the provisions of delegated authority.

Approved: April 30, 1980

**EVALUATION OF GS-1 - 15 POSITIONS**

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**SUPERVISION EXERCISED**

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None.

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**WORKING CONDITIONS**

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5

Usual office conditions.

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**EFFORT**

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Normal.

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**TOTAL SCORE**

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940