

# AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE \_\_\_\_\_ PAGE OF PAGES  
1 | 5

|   |                                 |   |                                |
|---|---------------------------------|---|--------------------------------|
| 2. AMENDMENT/MODIFICATION NO.<br><b>TWO</b>   | 3. EFFECTIVE DATE<br>12M-90-179 | 4. REQUISITION/PURCHASE REQ. NO.  | 5. PROJECT NO. (if applicable) |
| 6. ISSUED BY<br>U.S. Nuclear Regulatory Commission<br>Contract Negotiation Branch No. 1<br>Washington, DC 20555 |                                 | 7. ADMINISTERED BY (if other than item 6)<br>U.S. Nuclear Regulatory Commission<br>Contract Administration Branch No. 2<br>Washington, DC 20555 |                                |

|   |     |  |
|---|-----|--|
| 8. NAME AND ADDRESS OF CONTRACTOR (No. street, county, State and ZIP Code)  | (X) | 9A. AMENDMENT OF SOLICITATION NO.                        |
| Prime: U.S. Small Business Administration<br>W-District Office<br>1111 18th Street, N.W., 6th Floor, Post Office Box<br>19993<br>Washington, D.C. 20036 |     | 9B. DATED (SEE ITEM 11)                                  |
| Sub: J.C. Computer Services, Inc.<br>4705 Eisenhower Ave.<br>Alexandria, VA 22304   | X   | 10A. MODIFICATION OF CONTRACT/ORDER NO.<br>NRC-33-90-179 |
|   |     | 10B. DATED (SEE ITEM 11)<br>8/29/90                      |

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of offers  is extended  is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing items 8 and 15 and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (if required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS  
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14

(X) A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority; THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A)

B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation etc. etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).

C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:  
X FAR Clauses 52.243-3, Changes -- Time and Material or Labor Hours (April 1984)

D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor  is not,  is required to sign this document and return 4 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

This Modification No. Two is issued to clarify the Statement of Work in the contract by incorporating agreements made between the NRC and J.C. Computer Service, Inc. during negotiations prior to execution of the contract and in accordance with the proposals which were made a part of the contract. Therefore this contract is changed as shown in Item I. below. This modification also incorporates the Wage Determination Registers as shown in Item II. below.  
(Continued on Page 2)

Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

|  |   |
|--|---|
| 15A. NAME AND TITLE OF SIGNER (Type or print)  | 16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)                          |
| 15B. CONTRACTOR/OFFEROR  | 16B. UNITED STATES OF AMERICA   |
| 15C. DATE SIGNED   | 16C. DATE SIGNED  |
| See Attached Signature Page<br><small>(Signature of person authorized to sign)</small> | BY See Attached Signature Page<br><small>(Signature of Contracting Officer)</small> |

TRIPARTITE AGREEMENT

Modification No. Two  
Prime Contract No. SB3-90-1-6641  
Subcontract No. NRC-33-90-179  
Page 2

Subcontractor: J.C. Computer Services, Inc.

*[Signature]*  
(Signature of person authorized to sign)  
Name and title of signer:

ANITA M. REBERSON  
Director Customer Services

U.S. Small Business Administration  
United States of America

*[Signature]*  
(Signature)  
Name and title of Contracting Officer:  
WARREN C. JOHNSON  
SUPERVISORY CONTRACTING OFFICER

U.S. Nuclear Regulatory Commission  
United States of America

*[Signature]* 10/17/90  
(Signature)  
Name and title of Contracting Officer:

Elois J. Wiggins  
Contracting Officer

I. The Statement of Work under the contract is clarified as follows:

1. Under Section C.2 - CONTRACT OBJECTIVE, Paragraph 1, remove the word "and" preceding the word "DOS" in the last sentence and add, at the end of the sentence, "or replacement of parts with parts supplied by the NRC." Therefore, Section C.2, Paragraph 1 shall read as follows:

"1. Installation activities - those activities related to the placement, upgrade, and movement of microcomputers in the headquarters offices. This activity includes troubleshooting of microcomputer and peripheral problems but is limited to those which the resolution of problems may be resolved by switch settings, DOS or diagnostic (setup) software, or replacement of parts with parts supplied by the NRC."

2. Under Section C.3 - QUALIFICATION OF PERSONNEL, Paragraphs 1 and 2 are deleted in their entirety and a new Paragraph, as highlighted below, is substituted in lieu thereof. Therefore, Section C.3 shall read as follows:

"C.3 - QUALIFICATION OF PERSONNEL

All personnel to perform work under this contract shall be highly qualified to diagnose problems with and perform repairs on microcomputers and peripherals, and shall be experienced with IBM PCs, XT's, AT's and compatibles.

The Contractor shall provide qualified personnel who have completed formal training in the area of setup, upgrade, troubleshooting, diagnosing and repair of microcomputers, components and peripherals listed in Table 2 and have at least two years of demonstrated experience in these areas."

3. Under Section C.5 - STATEMENT OF WORK, a new paragraph is added, as highlighted below. Therefore, Section C.5 shall read as follows:

"C.5 STATEMENT OF WORK

The Contractor shall furnish all the necessary management, qualified labor, supplies, spare and replacement parts, tools, equipment and material, documentation and services to maintain the equipment and provide the services described in this Statement of Work based on an hourly rate as set forth in Section B of this contract. The Contractor shall provide their staff with telephone beepers to insure communication capabilities sufficient to allow the NRC Project Officer to notify the Contractor's Project Manager of changing priorities and allow for subsequent reassignment of tasks by the Contractor's Project Manager to his staff in a timely fashion."

4. Under Section C.5.1 - INSTALLATION ACTIVITIES, a new sentence is added to the end of Paragraph 1, as highlighted below:

"C.5.1. INSTALLATION ACTIVITIES

The Contractor shall provide daily on-NRC-site service for the installation, upgrade, relocation and trouble shooting and repair of those items listed in Table 2 of this Section C. The Government reserves to right to add, delete or change any of the items in Table 2 at any time during the period of this contract via modification to the contract by the NRC Contracting Officer. The NRC reserves the right to require additional Contractor staff to meet peak workload requirements."

5. Under Section C.5.1 - INSTALLATION ACTIVITIES, third paragraph, at the end of the second line, delete the word, "minor" in its entirety.

6. Under C.5.2 - MAINTENANCE ACTIVITIES, first paragraph, remove the word "on-call" in the first line, and replace it with the word "daily", and add a new sentence, as highlighted below, at the end of the paragraph:

"The Contractor shall provide daily on-NRC-site maintenance services at the NRC facilities, as requested by the NRC Project Officer for the microcomputer and peripherals listed in Table 2. Refer to Paragraph C.7 below for ordering procedures. The Government reserves the right to add, delete or change items to Table 2 at any time during the period of the contract via modification to the contract by the NRC Contracting Officer. The NRC reserves the right to require additional Contractor staff to meet peak workload requirements."

7. Under C.5.2 - MAINTENANCE ACTIVITIES, the third paragraph is deleted in its entirety and the following new paragraph is substituted in lieu thereof:

"There shall be no additional charge for service which was begun during the PPM and extended beyond the PPM. The onsite Contractor shall arrive at the NRC repair site to commence maintenance activities within 1.5 hours after prioritization and notification by the NRC Project Officer. The Contractor shall assure the NRC that equipment shall be operable within 24 hours or shall arrange for loaner equipment and offsite repair. The maintenance charges shall include travel costs to and from the site. Charges shall be computed to the nearest one-half hour. Repeat per-incident maintenance required within a thirty day period due to recurrence of problems presenting similar symptoms and requiring similar remedial actions will be provided at no additional charge to the Government."

8. Under C.5.2 - MAINTENANCE ACTIVITIES, a new paragraph shall be added after the fourth paragraph (which ends with "badging requirements of Contractor personnel removing the equipment."), as follows:

"In addition, the NRC Project Officer may occasionally require non-duty hour maintenance of machines located in critical NRC office areas (e.g., NRC Operation Center - Maryland National Bank Building.) The Contractor's Project Manager shall be available by telephone beeper to insure that maintenance activities during non-duty hours can be accomplished. Work performed during non-duty hours shall be charged at the non-PPM rate."

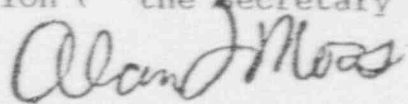
9. Under Section C.7 - ORDERING PROCEDURES, first line, delete the word, "on-call" in its entirety.

- II. As noted in the basic contract, Attachment 4 to Section J (Wage Determination Registers) was to be furnished to the Contractor upon NRC's receipt of it from the Department of Labor. The Wage Determination No. 86-1255 (Rev. 8) dated August 8, 1990, is hereby attached (23 pages) and made a part of Attachment 4 to Section J of the contract.

ALL OTHER TERMS AND CONDITIONS OF THE CONTRACT AND ITS MODIFICATION NO. ONE REMAIN UNCHANGED.

U.S. DEPARTMENT OF LABOR  
 EMPLOYMENT STANDARDS ADMINISTRATION  
 WAGE AND HOUR DIVISION  
 WASHINGTON, D.C. 20210

REGISTER OF WAGE DETERMINATIONS UNDER  
 THE SERVICE CONTRACT ACT  
 By direction of the Secretary of Labor



Alan L. Moss                      Division of  
 Director                              Wage Determinations

|  |  |                         |          |         |
|--|--|-------------------------|----------|---------|
| LOCALITY   | State: Dist. of Col., Maryland, Virginia   |                         |          |         |
|  | Area: Dist. of Col., MD COUNTIES: CALVERT<br>CHARLES, FREDERICK, MONTGOMERY<br>PRINCE GEORGE'S, ST MARY'S<br>VA COUNTIES: ALEXANDRIA, ARLINGTON, FAIRFAX<br>FALLS CHURCH, FAUQUIER, KING GEORGE, LOUDOUN<br>PRINCE WILLIAM, STAFFORD |                         |          |         |
| Wage Determination No.: 86-1255 (Rev. 8)    Date: 08/29/1990 |  |                         |          |         |
| Class of Service Employees                                   | Minimum<br>Hourly<br>Wage  | Fringe Benefit Payments |          |         |
|  |  | Health &<br>Welfare     | Vacation | Holiday |

Automatic Data Processing Occupations, Information and  
 Arts Occupations, Library and Archive Occupations, and  
 Technical Occupations:

- |                                     |          |
|-------------------------------------|----------|
| 1. Computer Data Librarian          | \$ 9.70  |
| 2. Computer Operator I              | \$ 9.74  |
| 3. Computer Operator II             | \$ 10.90 |
| 4. Computer Operator III            | \$ 12.57 |
| 5. Computer Programmer I 1/         | \$ 13.33 |
| 6. Computer Programmer II 1/        | \$ 14.96 |
| 7. Computer Programmer III 1/       | \$ 17.26 |
| 8. Computer Systems Analyst I 1/    | \$ 14.35 |
| 9. Computer Systems Analyst II 1/   | \$ 17.85 |
| 10. Computer Systems Analyst III 1/ | \$ 20.87 |
| 11. Computer Systems Analyst IV     | \$ 27.66 |
| 12. Key Entry Operator I            | \$ 7.82  |
| 13. Key Entry Operator II           | \$ 8.83  |
| 14. Peripheral Equipment Operator   | \$ 9.22  |
| 15. Exhibits Specialist I           | \$ 10.67 |
| 16. Exhibits Specialist II          | \$ 12.25 |
| 17. Exhibits Specialist III         | \$ 15.28 |
| 18. Illustrator I                   | \$ 10.67 |
| 19. Illustrator II                  | \$ 12.25 |
| 20. Illustrator III                 | \$ 15.28 |

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Wage Determination No.: 86-1255 (Rev. 8)    Date: 08/29/1990

| Class of Service Employees | Minimum Hourly Wage | Fringe Benefit Payments |          |         |       |
|----------------------------|---------------------|-------------------------|----------|---------|-------|
|                            |                     | Health & Welfare        | Vacation | Holiday | Other |

|   |          |
|---|----------|
| 21. Photographer I                                    | \$ 10.67 |
| 22. Photographer II                                   | \$ 12.25 |
| 23. Photographer III                                  | \$ 15.28 |
| 24. Librarian   | \$ 12.07 |
| 25. Library Technician                                | \$ 9.77  |
| 26. Technical Information Specialist I                | \$ 10.67 |
| 27. Technical Information Specialist II               | \$ 12.25 |
| 28. Technical Information Specialist III              | \$ 15.28 |
| 29. Technical Writer                                  | \$ 8.62  |
| 30. Drafter I   | \$ 7.04  |
| 31. Drafter II  | \$ 8.50  |
| 32. Drafter III                                       | \$ 10.67 |
| 33. Drafter IV  | \$ 12.25 |
| 34. Drafter V   | \$ 15.28 |
| 35. Technician I 5/                                   | \$ 9.89  |
| 36. Technician II 5/                                  | \$ 12.55 |
| 37. Technician III 5/                                 | \$ 16.73 |
| 38. Camera Operator                                   | \$ 8.02  |
| 39. Document Preparation Clerk                        | \$ 6.50  |
| 40. Training Technician<br>(Learning Resource Center) | \$ 8.76  |

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Wage Determination No.: 86-1255 (Rev. 8)    Date: 08/29/1990

| Class of Service Employees        | Minimum Hourly Wage | Fringe Benefit Payments |          |         |       |
|-----------------------------------|---------------------|-------------------------|----------|---------|-------|
|                                   |                     | Health & Welfare        | Vacation | Holiday | Other |
| 41. Test Proctor                  | \$ 7.08             |                         |          |         |       |
| 42. Industrial Hygiene Technician | \$ 11.97            |                         |          |         |       |
| 43. Laboratory Technician         | \$ 8.20             |                         |          |         |       |
| 44. Technical Illustrator         | \$ 12.60            |                         |          |         |       |
| 45. Hardware Coordinator          | \$ 7.75             |                         |          |         |       |
| 46. Off-Line Equipment Operator   | \$ 7.06             |                         |          |         |       |
| 47. Offset Pressman               | \$ 14.95            |                         |          |         |       |
| 48. Bindery Worker                | \$ 14.20            |                         |          |         |       |
| 49. Negative Engraver/Stripper    | \$ 13.44            |                         |          |         |       |
| 50. Offset Platemaker             | \$ 13.44            |                         |          |         |       |
| 51. Offset Photographer           | \$ 15.56            |                         |          |         |       |
| 52. Film Assembler-Stripper       | \$ 13.44            |                         |          |         |       |
| 53. Lithographic Technician       | \$ 13.44            |                         |          |         |       |
| 54. Lithographic Inspector        | \$ 17.62            |                         |          |         |       |
| 55. Quality Control Inspector     | \$ 11.18            |                         |          |         |       |
| 56. Instructor                    | \$ 12.25            |                         |          |         |       |

Fringe benefits applicable to all classes of service employees engaged in contract performance:

2/    3/    4/

1/ Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See 29 CFR 4.156)



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Wage Determination No.: 86-1255 (Rev. 8)    Date: 08/29/1990

| Class of Service Employees | Minimum Hourly Wage | Fringe Benefit Payments |          |         |       |
|----------------------------|---------------------|-------------------------|----------|---------|-------|
|                            |                     | Health & Welfare        | Vacation | Holiday | Other |
|                            |                     |                         |          |         |       |

- 2/ HEALTH & WELFARE: \$.59 an hour or \$23.60 a week or \$102.26 a month.
- 3/ VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years; 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present (successor) contractor, wherever employed, and with the predecessor contractor in the performance of similar work at the same Federal facility. (Reg. 4.173)
- 4/ HOLIDAYS: 10 paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.)
- 5/ The Technician classification includes all of the following: Electronics, Electromechanical, Enviromental, Instrumentation, Mathematical, Mechanical, and Photo-Optics

NOTE: The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the contractor so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed classes of employees shall be paid the monetary wages and furnished the fringe benefits as are determined. Such conforming procedures shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees. A written report of the proposed conforming action, including information regarding the agreement or disagreement of the authorized representative of the employees involved or, where there is no authorized representative, the employees themselves, shall be submitted by the contractor to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work. The contracting officer shall review the proposed action and promptly submit a report of the action, together with the agency's recommendation and all pertinent information including the position of the contractor and the employees, to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, for review. (See section 4.6 (b)(2) of Regulations 29 CFR 4)

JNIFORM ALLOWANCE: If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of \$3.35 a week (or 67 cents a day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

NOTE: The duties of employees under job titles listed are those described in the Service Contract Act Directory of Occupations, Second Edition, July 1986, unless otherwise indicated. See also 29 CFR Part 4 Section 4.152.

\*\*\*\*\* OCCUPATIONS NOT INCLUDED IN THE SCA DIRECTORY OF OCCUPATIONS \*\*\*\*\*

CAMERA OPERATOR

Performs duties similar in nature to the operator of a standard photocopying machine. Places material in the machine, takes its picture, and checks for form and clarity.

DOCUMENT PREPARATION CLERK

Primary duty is to prepare material for the camera operator. This entails the disassembly of documents, books, periodicals, etc. and organizing this material in a photographic mode.

TRAINING TECHNICIAN (LEARNING RESOURCE CENTER)

Review and evaluates answer sheets and lab forms for completeness and accuracy of scoring, recomputes scores to verify accuracy, identifies discrepancies and takes corrective actions in accordance with established policy.

Serves as the contact point for resolving complicated problems between AAC-118, AAC-323, AAC-930, etc. and within the unit.

Establishes and maintains the log of all control numbers for Air Traffic evaluation material. Assigned number should reflect code, option/phase, and number of booklet.

Reviews all printing requests and monitors their processing to insure procedures for controlled material are followed.

Insures that material produced by the print shop is as specified on printing requests and takes appropriate action to insure that material is incorporated into the controlled materials system.

Coordinates with air traffic developers on newly developed/experimental evaluation material and processes this material in accordance with procedures and/or instructions.

Established inventory procedures, monitors the inventory process and maintains the appropriate inventory documentation.

Maintains class schedules, student name files and testing schedules.

Established and maintains a system of secure storing of master and archive of air traffic evaluation material and distributes them as authorized.

Properly assembles, distributes and retrieves material from AAC-323 and documents as appropriate.

Disseminates/receives evaluation material to air traffic personnel after the determination is made that the individual is authorized. Assures accountability of evaluation material and answer sheets.

Monitors controlled material status, and documents destruction of designated material.

Assures the security and control of all air traffic evaluation material.

Orders non-radar graded laboratory problems from AAC-323, advising them of problem numbers to be used rotating as policy establishes and quantity required. Prepares for dissemination to AAC-930 as scheduled.

Performs other duties as assigned by the unit supervisor.

Serves as unit coordinator during shifts that unit supervisor does not work.

Provides on-the-job training to new personnel and reviews work of lower grade technicians, as appropriate.

#### TEST PROCTOR

Administers, supervises or proctors minimum of 5, maximum of 15 tests on a call basis. Tests include all Dantes, Clep, SSTs, ECI end of course for voluntary enrollments and any tests specifically required by an educational institution for admission or course enrollment. Administers make-up tests in conjunction with civilian institution programs when it has been clearly established that the student could not be present for normal in-class testing because of duty conflict or health reasons. Testing materials are controlled items and will be handled, stocked, safeguarded and administered in strict compliance with applicable regulations.

#### INDUSTRIAL HYGIENE TECHNICIAN

Evaluates proposed work processes or materials to assure incorporation of adequate measures for prevention of occupational disease hazards.

Investigates and evaluates existing industrial processes to determine nature, extent, and magnitude of exposures and the effectiveness of existing control systems.

Independently designs sampling strategies or methods to determine concentrations of contaminants and/or physical agents that exist in the workplace.

Devises/designs or works with engineers to develop control measures, use of protective devices, or adoption of alternate procedures or materials.

Performs, organizes, and/or directs on-site surveys and investigations and conducts literature searches to determine nature and severity of hazards present.

Conducts briefing/training with management, supervisors, and craftsmen relating to purpose of evaluation, health hazards identified, and required action to reduce or minimize hazards.

Plans and participates in special studies or investigations related to a particular occupational health problem, complaint, or suspected occupational medical condition including development and preparation of information in processing compensation claims.

Responds to accidents/incidents involving environmental contaminants and provides on-site professional consultation for appropriate personal protection and cleanup methods.

Prepares necessary correspondence and reports related to the industrial hygiene program.

Performs inventories of hazardous/toxic materials, obtains samples, obtains environmental permits and assists in development, update, and maintenance of environmental plans.

#### LABORATORY TECHNICIAN

Collects, processes, and analyzes blood urine, and other body fluids by established scientific laboratory techniques to aid in diagnosis, treatment, and prevention of diseases in the area of hematology, urinalysis, chemistry, blood bank, microbiology, serology, anatomic pathology, and general medical lab tests.

#### NEGATIVE ENGRAVER/STRIPPER

Jobs involved in negative-cutting activities ranging from simply opaquing the background of the negative by painting in pinholes with a solution of asphaltum, lampblack, or turpentine, to making intricate corrections and revisions of film and plastic negatives.

#### OFFSET PLATEMAKER

Jobs involved in processing photographic images onto metal, paper, or plastic plate materials to produce lithographic plates which are used in the offset reproduction of printed matter. Also included are jobs involved in producing paper or plastic masters using photo-direct or electrostatic equipment, as well as jobs that involve other related platemaking processes such as color proffing and making peel coats, scribe-coats, and hand transfers.

#### OFFSET PHOTOGRAPHER

##### INTRODUCTION:

Position is located in the Pre-Press Section, Reproduction Branch, Aeronautical Charting Division. Incumbent serves as a Journeyman Offset Photographer (Map and Chart).

##### DUTIES:

Independently operates one or more process cameras and other photographic equipment, to accomplish projects requiring the application of advanced photographic methods and techniques to make negatives and positives, or other photographic products required for the preparation of lithographic printing plates subsequently used in the multicolor tone reflection and or transmission copy materials which contain areas of inconsistent tone or other deficiencies such as weak images or inadequate contrast.

1. Operates 60", 40" and 24" process cameras in the production of film positives and negatives up to 60" X 48". Work produced included line, halftone, continuous tone, and duotone, demanding exacting procedures and specifications such as:
  - a. The evaluation of multicolor tone copy using gray scales and densitometers; the photographing of such copy using multifunction exposure methods (two or three-step, exposure and flash) and selecting from a variety of halftone screens, the right one as to glass or contact, magenta or gray, standard or elliptical dot, and line rulings. Sets up screen for use by determining the proper screen distance for desired contrast and the proper screen angle as to job specifications with the use of a screen separation gauge.
  - b. Sets the camera to specific requirements as to scale, dimensions, and alignments registration, maintaining tolerances from plus or minus .0005 inches to exact, using exact pre-made scales, register rules, programmable calculators, metra-techs, and microscopes.
  - c. Selects the proper light source for brilliance, color temperature, and even lighting; selects the proper color filter length of the lens; selects the proper film for sensitivity to the light spectrum, speed and contrast.
1. Employs special techniques to meet special requirements concerning parameters such as dot size

and density, faithful reproduction or enhancement of tonal range, color balance, contrast, and avoidance of moire effects, using color and density filters, electronic exposure devices, and transmission and reflective gray scales.

2. Uses 40" camera, with special pin register film platen, for the production of hydrographic and topographic boat sheet negatives and other precise scaled maps, charts, and related data negatives used in the lithographic reproduction of nautical and aeronautical charts. In making reduced negatives for storage or enlargement from the mini-negatives, operator must rigidly follow procedures to achieve optimal quality and exact size by:

- a. Calibrating reflection densitometer.
- b. Obtaining density reading of original copy, averaging out and determining proper exposure.
- c. Programming automatic gamma exposure control.

3. Operates various contact vacuum printers and frames in the production of film positives and negatives up to 60" X 48". Work produced includes line, halftone, continuous tone, ductone and random dot processes, demanding exacting procedures and specifications regarding size, exposure, tone consistency and development.

- a. Generates composite positives and negatives requiring multiple exposures from line, open window and screened elements to exacting specifications for screen values, image resolution and line registration.
- b. Produces several types of photo mechanized vignettes such as, aero, shoreline and water vignettes employing special lighting, plastic diffusers, chemistry, and emulsions utilizing unique procedures that require a high degree of accuracy and technical photographic expertise in creating vignettes to exact tolerance for map and chart printing.

4. Operates several lithographic film processors ranging in size from 24" to 48" employing litho and tone developers. Maintains processor chemical balance by utilizing control strips and densitometers. Mixes and changes chemistry, cleans, lubricates, and makes minor repairs to machines.

5. Uses numerous, highly sophisticated electronic testing and checking devices including sensitometers, and mini-computers. All final products are subject to rigid quality control standards.

6. Uses various small format (hand held) cameras for the photographing of special events, awards, equipment, and facilities. Processes small format films and makes enlarged and or reduced prints as required utilizing various enlargers and printers.

7. Assists in directing the work of and training lower grade employee.
8. Performs other duties as assigned when work load requires.
9. Responsible for meeting additional and more difficult quality standards in accomplishing complete photographic projects, including all intermediate stages. Assures that work is complete and accurate before passing on for review. Observes all safety regulations and uses proper handling procedures while working with chemicals.

#### Supervision Received:

Performs work independently on the basis of work orders, specifications, accepted photographic practices, established procedures, and verbal or written instructions from the supervisor. Completed work is reviewed for compliance with specific requirements, desired quality and established standards.

#### Skills and Knowledge Required:

Must be thoroughly familiar with all equipment, materials, chemicals, technical guides and manuals used in the Photographic Section. Must be able to apply advanced or unconventional photographic techniques used in holding or dropping various color hues or densities of multicolor copy. Must be thoroughly familiar with all equipment, materials, chemicals, and the more complex guides and manuals used in the Photographic Section. Must be able to apply unconventional lighting techniques to simulate natural light conditions, to assure that the resulting shadows and relief are within exacting tolerance requirements concerning length and direction. Must have a practical understanding of the additive and subtractive primary and complimentary colors, and the process links to accomplish process color separation. Must ensure that exacting tolerances are maintained (plus or minus .0005 inches or finer) with respect to scale dimension, alignment registration, and line weight. Must be able to maintain exacting tolerances in dot size and density, so that screen tints, halftone, and other separations of multicolor work will fit with hairline registration, and match when merged during the press run. Must be able to select proper line and percentage screen, set proper screen distance and angle in accomplishing halftone multicolor photography. Incumbent must have extensive knowledge of photographic theory, technology, optics, chemistry of silver halide emulsions, light sources, camera characteristics, and maintenance and repair procedures. Must be able to evaluate all copy materials (normal, unusual, and difficult) and determine the methods, (to include unconventional) procedures, and techniques to be used to achieve desired results.

#### WORK ENVIRONMENT:

The work is done indoors, in areas that are normally well heated and ventilated. It involves exposure to fumes, odors, and the possibility of skin, eye, or other irritation from photographic



chemical. Offset photographers may be exposed to ultra-violet illumination, eye irritation from high intensity light sources, and eye strain when working under subdued lighting or in dark rooms. There is also a possibility of cuts in handling photographic materials and operating photographic equipment under subdued lighting, as well as electrical shock and burns from lighting systems or other electrically powered equipment. There is discomfort when wearing protective clothing such as face shields, goggles, rubber or nylon gloves, and aprons.

#### PHYSICAL DEMANDS:

The work involves prolonged standing, frequent walking, and occasional climbing, bending, and crouching such as when checking and operating equipment, and obtaining materials. Offset photographers frequently handle objects weighing from 25 to 40 pounds and, occasionally, objects weighing in excess of 45 pounds, for example, in setting up work or lifting, carrying, pushing, or pulling containers of chemicals, films, and other photographic materials.

#### FILM ASSEMBLER-STRIPPER

##### INTRODUCTION:

This position is located in the Negative Engraving Unit of the Reproduction Branch. Section functions are outlined in the NOAA organization Handbook. The incumbent serves as a film Assembler-Stripper.

##### MAJOR DUTIES AND RESPONSIBILITIES:

Plans, designs, assembles, lays out, and strips into place film negatives and positives of charts, maps, and related navigational publications to compose multiple flats for signature layouts requiring exact adherence to specifications for precise positioning, margins, color, junctions, and size of lithographic printing plates.

The incumbent is responsible for performing the following:

1. Within hairline (.003 inches) to critical (.001 inches) registration tolerances prepares multiple flats for subsequent use in single and multicolor printing.
2. Prepares dummy guides and layouts for single side, face and back work, turn flats, signature flats. Allows for creep during layout, and superimposes multiple flats on top of one another, maintaining hairline to critical tolerance for critical multicolor navigational data publications.
3. Strips or lines in register marks, center lines, and fold lines. Allows for margins for gripper, trim, saddle stitch and loose leaf binding. On flats with multiple units or subjects, allows for number of pages as well as extent and type of folds for correct imposition of pages.

4. Opaques, cuts, retouches, and corrects film negatives, and strips map and chart features. Also performs corrections on halftone and screened negatives.
5. Interprets job specifications and special instructions to determine extent and complexity of the work and selects, adapts, or devises the most efficient procedure for its accomplishment. This includes organizing and determining the services required for each assigned job. This involves film painting, image to chup, making new scribe-cotes and peel coats, correction of existing elements giving close detail to the placement of symbols and other images in precise positions. Of special importance is the maintenance of exact registration between each element.
6. Makes moderate to difficult corrections of all kinds. Retouches weak and detailed areas, adds soundings, compasses, symbols, notes and codes in exact position shown on correction copy.
7. Responsible for ordering type from Typography Section. Perform stick-up type applications.
8. Maintains, adjusts and sharpens engraving tools and instruments for appropriate and most effective application in performing work in accordance with established standards.
9. Assists in training new and junior employees.
10. Performs other related duties as assigned.

## SUPERVISION RECEIVED:

Works under the supervision of the foreman, Litho Process section. Completed work is spot checked to see that the work meets requirements and accepted trade standards. Technical assistance or advice is available from the work leader when unusual problems or problems appearing in subsequent press or bindery processes occur.

## OTHER FACTORS:

## Skills and Knowledge Required:

- . Must have a broad and comprehensive knowledge of the procedures and techniques required to assemble, layout, and strip into place film negatives and positives to compose multiple unit (signature flats) and multiple flats within hairline to critical alignment tolerances for multiple color printing.
- . Skilled in the use of pin-register punch systems and small sighting tubes and collimating magnifiers for critical superimposition of multiple flat exposures.
- . Critical tolerance work requires a practical knowledge of the dimensional stability

requirements of film flats and masking materials as well as the alignment sequence for different detail flats (e.g., culture, names, and grid) within each color.

4. Knowledge of the characteristics and applications of materials used in negative engraving including film negatives and positives, scribe-cote, peel coat, chalk tracing, blueline reproductions, stripper type, and the various opaques. Skill in using this knowledge to plan the execution of assignments. Considering such variables as time constraints, and condition of existing negatives.
5. Skilled in the full range of techniques and procedures employed in the film assembly-stripping and registration of negatives and positives for partial, single composite, multiple unit, and multiple flat work required for single color and multicolor printing.
6. Exercise skill in maintaining accuracy of alignment of each flat in flat multiple work, so that the flats maintain their precise relationship to each other, either on one press plate or on several plates printing on the same sheet of paper in multicolor printing.
7. Skill in the use and maintenance of negative engraving tools and equipment such as engraving needles, scrapers, knives, brushes, and pens.
8. Skills in correcting existing negatives by etching in broken or plugged lines and letters and may perform minor corrections on plugged screen and halftone negatives, as well as negative corrections performed at lower levels.

#### Work Environment:

Work is performed indoors under subdued lighting, in a well ventilated area. There is a possibility of cuts to fingers from knives, razor blades, etching tools, and film. Some jobs may be located in noisy pressrooms or bindery equipment areas. Film assembler-strippers may be exposed to fumes from cleaning solvents used in layout operations. In addition, they are subject to eye strain and/or fatigue resulting from light shining through the glass top of the layout table.

#### Physical Demands:

The work requires standing, sitting, bending, and reaching for long periods of time; good eye-hand coordination; and lifting and carrying copy material and supplies weighing up to 20 pounds.

#### STATEMENT OF INCLUSION IN THE FAIR LABOR STANDARDS ACT

THIS POSITION IS INCLUDED IN THE COVERAGE OF, AND SUBJECT TO, THE FAIR LABOR STANDARDS ACT IN THAT IT DOES NOT MEET THE EXEMPTING CRITERIA FOR A PROFESSIONAL, ADMINISTRATIVE, OR EXECUTIVE POSITION AS DEFINED IN FEDERAL PERSONNEL MANUAL LETTERS 551-1, DATED MAY 15, 1974, AND 551-7, DATED JULY 1,

1975.

## LITHOGRAPHIC TECHNICIAN

### INTRODUCTION:

This position is located in the Type Composition Unit of the Pre-Press Section, Reproduction Branch, Aeronautical Charting Division. Specific Branch functions are outlined in the JOAA Organizational Handbook. Incumbent serves as a Lithographic Technician.

### DUTIES:

As a journeyman, is fully responsible for the setting-up, operation, and daily maintenance of input keyboard consoles, automated photo-electronic typesetter, contact printers, and film processors; utilized to produce typography for the compilation and maintenance of maps, charts, and related data. In addition, is responsible for the proofreading, correcting, makeup, and final verifying of all typographic material produced by the Unit.

1. Reads and interprets work orders to determine typographic/photocomposition requirements.
2. Automatic Film Processor Operations: Performs photographic darkroom duties. Develops the film exposed on the composing unit, demanding precise balance of chemistry, temperature and speed. Careful monitoring is vital for quality control of imagery as any change in functions of machine will result in variance of density of the type character and render the product unusable. Replenishment rate of developer and fixer chemistry must be checked hourly. As needed, runs test strip through the unit and evaluates these strips on a densitometer. Performs routine maintenance required to keep the processor in good operating condition; such as, flushing of wash tank. Periodically performs complete system cleaning, removal and washing of racks, tanks, and chemistry supply tanks. In addition, mixes developer and hypo solutions needed to replenish chemicals used in the processor.
3. Stripper Film Operations: Operates a variety of contact printers to produce negatives and positives. Utilizes negative engraving techniques such as tooling and opaueing to perform touch-up work on films. Produces high quality stripping film prints for use in cartographic compilation operations.
4. In accordance with approved type specifications for each program, designates the proper formats for line length, type size, type style, leading, justify left and right margins, tabular parameters, and disc location. If job is new or unique, a new format must be developed by reference to numerous charts designating proper codes. Up to 49 formats may be developed and stored. The format is then loaded into the keyboard console in proper key location and sequence.

A general knowledge of the Aeronautical Charting Division's mission and functions of various components in order to communicate and resolve problems that could result in production bottlenecks.

A good practical knowledge of the various photo lithographic processes, workflow, production equipment and techniques employed within the Reproduction Branch to produce mapping and charting requirements.

A comprehensive knowledge of the many typographic formats and specifications required to meet the national and international agreed on forms of cartographic notation for Nautical and Aeronautical maps and charts. A thorough working knowledge of translucent stripper films and the associated chemistries used in their processing.

A comprehensive knowledge of typographic, such as type faces, fonts, printers terms and measures, page layout, and the proper use of tools of the trade (light tables; T-squares, densitometers, microscopes, correction devices, and other tools peculiar to the lithographic printing process required to plan and produce an acceptable form).

A practical knowledge of basic data processing techniques that are utilized in the production of material on the various machines in the Unit.

A good working knowledge of phototype setting and litho films and their associated chemistry and leveling techniques.

A thorough knowledge of the capabilities, and the ability to operate all equipment used in the Unit to produce precise typographic requirements.

A good knowledge of basic English, grammar, spelling, punctuation, and Business Math.

#### Supervision Received:

Works under the general supervision of the Unit Chief who is available for consultation and guidance to help resolve complex situations that may arise.

The incumbent independently plans and executes the work assigned. The exercise of initiative and judgement is necessary to anticipate and resolve problems and to deviate from established procedures.

Work is reviewed (irregularly) to ensure completeness, quality, and usefulness of the final product and adherence to established standards.

Incumbent is guided by established practices and procedures, but unique situations may require

deviations and the formulation of new procedures that will become standard operation procedures to resolve future problems of a similar nature for work processes through the Unit. The incumbent is expected to exercise sound judgement and ingenuity in developing these new procedures that will promote efficient handling of work within the Unit.

To work involves the interpretation of raw data or manuscript into a finished product that meets established standards for Nautical and Aeronautical maps and charts.

The incumbent must often work within very tight production schedules in performing his/her duties, and the content must be as accurate and as error free as the system is capable of producing, to ensure safety and currency of the navigational products issued which are varied and complex. The incumbent must recognize the individual production methods and techniques to accomplish the various complex assignments. The employee is responsible for operating, controlling, and normal maintenance of a variety of processes and equipments such as: film processing, mixing chemicals, use of various vacuum and contact frames, typesetting machines, keyboarding devices, proofreading, correcting, and verifying the quality of the finished product prior to it progressing to the next production stage in the Branch.

The incumbent must consider the requirements and limitations of subsequent production processes using the material produced. Major errors and rework may result in delay of printing material needed by our customers, and added cost to the government and public for our services.

The Type/Photocomposition functions are an intricate part of the reproduction process. The purpose of the work is to produce a current, correct version of navigational materials utilized by Federal and commercial customers for the safe use of our waterways and airways systems. Information that is not issued in a timely manner, and is not accurate, will result in a safety hazard and possible loss of life and property to users of our products.

Personal contacts are maintained with operational production areas within the Branch, and telephone contact with remote ACD customers is often required to resolve questions, guidelines, etc. for material in process; and with equipment manufacturers and technical representatives for service.

Contacts are made to provide guidance, resolve difficulties, solicit information, and coordinate internal schedule changes that would improve costs and scheduling.

#### Physical Demands:

This position requires strength to lift up to 60 lbs. and involves some walking, standing, and bending. Incumbent is subject to second or changing shift work.

#### Work Environment:

Work is performed in a production shop setting, occasional use of darkroom facilities, and infrequent visits to other production areas. Incumbent is exposed to corrosive chemicals when mixing and/or processing films and ozalid proofs. Protective gear must be worn when mixing chemicals to protect skin, lungs, eyes, and clothing.

#### LITHOGRAPHIC INSPECTOR

##### INTRODUCTION:

This position is located in the Quality Assurance/Control Staff, Reproduction Branch. The functions of the QA/C Staff are outlined in the NOAA Organization Handbook. The incumbent serves as an inspector of a broad array of lithographic printed products and processes all of which require critical tolerances be met to insure navigational safety.

##### MAJOR DUTIES AND RESPONSIBILITIES:

Examines the lithographic products produced within or for the Reproduction Branch, by skilled trade craftsmen; Negative Engravers, Film Assembler-Strippers, Offset Platemakers, Offset Photographers, Pressmen, Bindery Machine Operators and/or outside contractors to determine that critical requirements, standards and specifications have been met. Inspections are made at the conclusion of critical functions such as the completion negative corrections, photo composites, platemaking, as well as during press operation. It is the responsibility of the Inspector to insure the printing quality, registration, color, corrections, etc. are acceptable for a final distribution to the public, agents, and other government agencies.

Judgement and discretion must be exercised in the resolution of errors or the improvement of quality due to the several individualized criteria which must be evaluated in the decision making process; i.e., the established deadlines in relation to existing priorities and scheduled work, criticality operation, the coordination of the various production units involved, etc. Often, corrections are made immediately by the Inspector, i.e., to the press plates while on the press or the repair and retouching of reprint negatives. Work pulled and returned to the operating unit supervisor or contractor is accompanied by instructions as to the action required to meet specification and quality standards.

Provides the Supervisor a record of all defects returned to facilitate the coordination of operations within the Unit. Recommends changes to improve subsequent printings.

Prepares jobs to be sent to engraving or printing contractor. This entails the review of negatives for quality and completeness, marking deficiencies on the negatives and writing an explanation of what is required to remedy the problem. The preparing of appropriate paper work for the contractor, and ordering security copies from the Photo Lab must be accomplished prior to shipment to the contractor.

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**PHYSICAL DEMANDS:**

Work is performed in areas that require the Inspector to stand, stoop, and bend to carry out assignments.

Involves sitting, standing, and straining the back muscles by bending for occasional long periods of time when verifying at light tables. May be subject to eye strain and fatigue resulting from rays of light shining through glass top tables and to the fine detail of work checked.

**WORK ENVIRONMENT:**

The work is done in a shop setting which is well lighted, heated, and ventilated. However, the work does require safety precautions be exercised such as protective clothing and hearing protectors when working on or around the presses. Incumbent is also exposed to skin irritations, cuts, bruises, hazards from moving parts; and unpleasant odors.

Travel to the contractor site will be required and extended visits of five to ten days may be necessary.

**QUALITY CONTROL INSPECTOR****DUTIES:**

Establishes and qualifies inspection and test methods, procedures, instructions and associated equipment.

Performs and documents acceptance inspections and tests.

Evaluates and certifies acceptance inspections and test data/results are in compliance with applicable codes, standards, and contract provisions.

Schedules project inspections.

Conducts inspection audits.

Periodically reviews all work performance, maintenance and similar data records to analyze problems, determine trends and modify methods and procedures.

Assist in preparation of Quality Control Plan and Procedure Manuals as required.

Conducts periodic review of site Quality Control Plan and incorporates changes as appropriate.



## OFF-LINE EQUIPMENT OPERATOR

An off-line equipment operator operates bursters, collators, sorters, reproducers, and interpreters under direct supervision. Additionally, this classification performs additional support functions when required. This classification is compared to the peripheral equipment operator previously described.

The Federal equivalent grade level of the off-line equipment operator is GS-2 and the peripheral equipment operator previously described is GS-5. Comparison of these classifications indicates that off-line equipment operator is 73% of the peripheral equipment operator. To establish the wage rate for the off-line equipment operator, the wage relationship of 73% is applied to the peripheral equipment operator hourly wage rate of \$8.20. This calculation results in a conformed wage rate of \$5.99 per hour for the off-line equipment operator.

## OFFSET PRESSMAN

Jobs involved in the operation and maintenance of offset presses used for printing material by the offset lithographic method from plates on which the printing and non-printing areas are essentially on the same plane.

## BINDERY WORKER

This occupation includes jobs that involve setting up, operating, and making minor repairs to powered and manually operated gathering, stitching, folding, gluing, embossing, papercutting, stapling, drilling, punching, collating, sorting, and binding machines and equipment used in making books, pamphlets, brochures, etc., in quantity.