

## **Senior Resident Inspector**

### **QUALIFICATIONS REQUIRED:**

Candidates must have at least one year of experience at the next lower grade level or equivalent by the closing date or no later than 30 calendar days after the closing date of the vacancy announcement and before placement in the position.

Candidates should generally have five (5) years of experience with the NRC; alternate appropriate experience will be considered for qualifications. Applicants must also possess the ability to implement the NRC regulatory program, including application of NRC standards, rules and regulations for nuclear facilities. Applicants must have experience that demonstrates sufficient knowledge of basic nuclear technology, operating safety procedures, radiological safety, codes, standards, and procedures. One year of this experience must have been at the next lower grade level or equivalent.

Possessing a thorough knowledge of the theory, principles and practices in a field of engineering as evidenced by a bachelor's degree and several years experience, or an equivalent combination of education, training, and experience that would be eligible for certification through alternative qualification standards.

**APPLICANTS SHOULD NOTE THAT THE TOUR LENGTH OF A RESIDENT INSPECTOR AT A SINGLE SITE IS LIMITED TO SEVEN (7) YEARS BY COMMISSION POLICY.**

Any applicant selected for this position must meet the eligibility requirements outlined in the agency's resident inspector relocation bonus policy, including signing a mobility agreement.

## **Resident Inspector**

### **QUALIFICATIONS REQUIRED:**

Candidates must have at least one year of experience at the next year lower grade level or equivalent by the closing date or no later than 30 calendar days after the closing date of the vacancy announcement and before placement in the position.

Applicants must possess a thorough knowledge of the principles, theories, and practices in the field of engineering as evidenced by a bachelor's degree such as nuclear, chemical, mechanical, electrical, and several years of experience or equivalent combination of education, training, and experience that would be eligible for certification through alternative qualification standards. Applicants must be familiar with nuclear industry standards, rules and regulations and be able to apply them. Applicants must have recent experience associated with nuclear plant operations, maintenance, and testing that demonstrates knowledge of basic nuclear technology, operating safety procedures, radiological safety, codes, standards and procedures. This ability must have been gained through commercial, government, or military nuclear experience.

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APPLICANTS SHOULD NOTE THAT THE TOUR LENGTH OF A RESIDENT INSPECTOR AT A SINGLE SITE IS LIMITED TO SEVEN (7) YEARS BY COMMISSION POLICY.

Any applicant selected for this position must meet the eligibility requirements outlined in the agency's resident inspector relocation bonus policy, including signing a mobility agreement.

**Estimate of total compensation paid to each of the inspectors at the San Onofre Nuclear Generating Station, including benefits and overtime:**

RI - \$117,219 (not including one time relo bonus of \$29,305) Overtime amount is unknown. Benefits are approximately 26% of salary.

SRI - \$131,910 (not including one time relo bonus of \$32,978) Overtime amount is unknown. Benefits are approximately 26% of salary.

Senior Resident Inspector (Nuclear Engineer), GG-14

### FUNCTIONAL STATEMENT

As a Senior Resident Inspector, the incumbent participates in systematic assessments of licensee performance pertaining to nuclear facilities; assists in the development of inspection programs pertaining to nuclear facilities; performs direct inspections of licensee activities during construction, pre-operation, testing or operation phases of power reactor facilities. The incumbent also assists in the preparation of safety evaluations, as requested by the Regional Office. Has a duty station at the reactor site. Performs as team leader of assigned inspection projects.

### REGULAR DUTIES

Supervises, and conducts, or leads, inspections of assigned construction or operation projects for nuclear reactor facilities to assure compliance with design specifications, the conditions of the construction permit or operating license, provisions of the Atomic Act of 1954, as amended, the Energy Reorganization Act of 1974, and the Rules and Regulations of the Commission.

Maintains control of the status of the inspection programs carried out at assigned reactor plants prior to construction, during construction, preoperational testing, startup, and all phases of operation. In carrying out this responsibility, the incumbent assures that inspection procedures are completed in accordance with schedules established for the program in use at the plant. Recommends schedules and scope of inspection, utilizing information from specialists as necessary, to be performed at assigned reactor plant(s). Recommends changes to the planned scope and schedule of inspection for construction or operation as progress dictates. Reviews and analyzes the implications of inspection findings for assigned projects; reviews licensee reports of construction deficiencies, licensee event reports and performs an in-depth evaluation or assures that such an evaluation is made by an appropriate specialist or group of specialists; continually evaluates over-all licensee performance and recommends regional action if there overall performance is not acceptable.

Participates as a team leader in investigations of incidents, abnormal conditions, or allegations involving or pertaining to nuclear facilities. Acts as spokesperson for inspection or investigation teams to the licensee and others, and manages the entrance and exit interviews with licensee management.

Personally conducts inspections in own areas of technical competence. These areas include the broader management areas which have facility-wide implications such as the quality assurance programs of the licensee, construction 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.

Prepares a comprehensive and cohesive report covering all facets of the inspection; reviews reports prepared by individual team members and assures they are complete, soundly developed, and consistent with other parts of the overall report.

Recommends enforcement action to Regional management. Prepares inspection reports which include notices of violation; subsequent enforcement action, to be taken by either regional management or escalated to include civil penalties, based upon findings included in the inspection reports.

Keeps abreast of current technology, construction or operation practices and applicable codes and standards, and makes recommendations to improve the application of inspection techniques and standards. Maintains relationships with the regional office staff to obtain technical guidance and to resolve technical problems pertaining to the regional reactor construction or operation functions. Recommends new or other NRC guidelines and requirements based on assessment of conditions identified during an inspection or investigation. Attends meetings and communicates with projects and/or technical staff of the various regional offices, the Advisory Committee on Reactor Safeguards, and other components of the NRC. Presents the results of inspections to the ACRS, ASLB, NRR, and others as requested. Communicates with other engineers and specialists in other Government and industry to maintain technical proficiency and understanding of the latest developments in reactor technology, applicable codes and standards, procedures, construction or operation techniques and radiological and nuclear safety.

Advises and assists Regional Office management in the execution of the reactor inspection function and other enforcement activities. on operating events, including accidents and incidents that may be of interest to other federal agencies such as EPA, DOE, FBI\$ and OSHA, he/she informs appropriate personnel in the Regional office so that they can contact the appropriate agency. May have occasion to establish contact with state and local government officials to promote good relations, and to share NRC experience and inspection know-how.

Performs other duties, long-range assignments, such as licensee management performance appraisal inspection program planning, quality assurance problem reviews, and provides advice and assistance to other inspectors regarding inspection requirements.

Provides guidance and training to new lower-graded inspectors to help them acquire, requisite technical and inspection skills.

Responsible for the preparation of the draft report for the Systematic Licensee Performance (SA-LP) program. Participates as a SALP Assessment of Licensee and is-responsible for the presentation of information to assess proper application of the evaluation criteria by the SALP board. .

### BASIC SKILLS

Working knowledge of a range of engineering disciplines, such as civil, mechanical, nuclear and electrical equivalent to that gained through a B.S. degree and several years of experience required to understand reactor systems, construction practices, codes standards and procedures with particular emphasis of safety in design, construction and operation of power reactors.

Specialized knowledge of the theories, principles, practices, and applications of nuclear engineering systems and demonstrated experience in reactor construction and operation in order to analyze and understand hazards, make evaluations of specific types of reactor, and to observe, review, appraise and report on the progress of construction, test of equipment, systems and nuclear plant maintenance and operations.

Understanding of structural fabrication and construction techniques, facility management (quality assurance and administrative controls), environmental impact of construction, and health physics adequate

for personal safety.

Understanding of the fundamental principles underlying the design and operation of boiling water and pressurized water reactors; of concrete, welding, electrical, and instrumentation technology as applicable to nuclear power plant construction along with the associated industrial codes and standards; and of nondestructive examination testing and evaluation.

Knowledge of several reactor operation areas of specialization such as . integrated plant operation (BWR and PWR); engineering safeguards systems (BWR and PWR); instrumentations and electrical (BWR and PWR); and thermal hydraulic and nuclear design (BWR and PWR); and containment leak rate testing.

Thorough understanding of all NRC rules, regulations, and procedures for administration and enforcement of license issued by the NRC under the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974. Has the ability to make sound judgements in situations not covered by guidance and to devise solutions to unusual inspection problems.

Knowledge of the availability and usefulness of new or improved procedures, instruments, and equipment related to reactor construction inspection work. Must be able to maintain technical proficiency and understand the latest technical developments for the improvement of reactor construction inspection techniques and standards.

Demonstrated skill in clear presentation (oral and written) of informational and technical material, and the ability to gain and keep the respect and active cooperation of licensee management and technical staff. Ability to maintain composure in stressful situations.

Incumbent should be mobile and willing to relocate for the good of the service as the needs of NRC indicate.

### CONTACTS

Continuous personal contacts with Regional Office management and technical staff on matters related to the execution of the reactor construction or operation functions, to coordinate planning and conduct of inspections at assigned sites, and to apprise them of events or occurrences that may call for contacts with other Federal agencies or state and local organizations.

Frequent personal contacts with licensee's construction, operation, quality assurance, and key management personnel to inspect, appraise and evaluate (a) a licensee's performance in accordance with a construction permit or the operating license, (b) the effectiveness of individual licensee's quality assurance and management controls and procedures, and (c) the degree of hazards to employees or the public caused by licensee's activities.

Contacts craft employees, foremen, superintendents, and quality assurance personnel of licensee to inform

them of NRC's role and to learn of possible problems; e.g., improper practices such as unwarranted shortcuts, use of wrong materials, assignment of unqualified workers.

Occasional contacts with professional staff of other NRC offices and divisions to maintain technical proficiency and understanding of the latest developments in reactor technology, construction or operation practices, inspection techniques, radiological and nuclear safety to obtain technical guidance, or to furnish information to others concerning licensed facilities.

Occasionally gives briefings or testifies on technical matters before such bodies as ACRS and ASLB.

### RESPONSIBILITY FOR DECISIONS

#### Supervision Received

Section Chief

General Supervision "B"

Inspection Guides are appropriate parts of 10 CFR, Regulatory Guides, and the NRC Management Directives System, inspection plans and modules, as well as established NRC techniques and standards and industrial codes and standards for facility inspection. Occasional conference with supervisor on general progress.

#### Independent Action

Plans the schedule and scope of inspections of licensee activities to assure proper implementation of assigned inspection program.

For at least 20 percent of his/her time, independently selects areas of unprogrammed inspections, and determines the scope and depth of those self-initiated inspections.

With Regional direction as necessary, makes technical judgments and decisions concerning safety practices and license compliance with inspecting the construction or operation of reactors and nuclear facilities.

Prepares for Regional review and submits statements of conclusions, recommendations, and technical judgments as to the adequacy of safety and compliance based on inspection findings of licensed activities in incumbents' areas of technical specialty.

Makes on the spot technical judgments and decisions concerning safety practices and licensee compliance while inspecting reactors on routine matters.

Advises construction or operation specialists or other assigned personnel in inspection of unusual or unprecedented facility activities that could affect the planned inspection.

Acts as NRC spokesman to all levels of licensee management for assigned construction or operation activities and sites on inspection findings and resolution of problems. Acts on findings which frequently relate to complex situations and require for adaptation of various inspection approaches for resolution.

Independently prepares and submits statements of conclusions, recommendations, and technical judgment as to the adequacy of safety and compliance based on inspection findings resulting from assigned inspection program.

### RECOMMENDS

Recommends to Section Chief and to higher levels, cessation of activities and/or reduction of construction, preoperational testing; operation and activities covered by the Quality Assurance Program.

Recommends changes to inspection program for assigned facilities in light of SALP board findings, as necessary.

Identifies and recommends items for consideration as enforcement actions.

Assesses the adequacy of and the 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 construction inspection methods, technique, and standards.

### SUPERVISION EXERCISED

Site Secretary, Resident Inspector

### WORKING CONDITIONS

Majority of working time is field inspection and investigation work, which involves exposure to plant conditions including hazards such as open trenches, excavations, heights, construction equipment, and falling objects, as well as inclement weather. May be required to wear protective clothing and safety devices if exposed to toxic or radioactive materials. Normal office conditions while in the Regional Office.

EFFORT

The field work requires extensive walking, climbing, standing, and exposure to inclement weather.



Resident Inspector (Nuclear Engineer), GG-0840-13  
Division of Reactor Projects  
Region IV

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### FUNCTIONAL STATEMENT

Serves as a resident inspector in carrying out the inspection responsibilities at an assigned nuclear power reactor facility to ensure that operations at the facility are conducted so as to protect nuclear material and facilities, the environment and the health and safety of the public.

### REGULAR DUTIES

Performs inspections under the supervision of a senior resident inspector at assigned reactor plants during preoperational testing, startup and all phases of operation. In carrying out this responsibility, the incumbent assures that assigned inspection procedures are completed in accordance with the Master Inspection Plan and the NRC Inspection Manual. Modifies scope of inspection during progress as required to meet changing conditions.

Personally conducts inspections in own areas of technical competence. These include such areas as integrated plant operations (BWR and PWR), engineering safeguards systems (BWR and PWR), containment leak rate testing, operational quality assurance, station procedures, and maintenance and testing activities.

Inspection results are analyzed for insights on licensee safety performance and reflect a thorough and technically correct knowledge and understanding of the licensee's facility, safety and security principles, and regulatory requirements.

Documents inspection and investigation findings to convey information to the licensee, NRC offices and to the public.

Keeps abreast of current reactor technology, safety practices, applicable codes and standards, and contributes to efforts to improve the application of inspection techniques and standards.

Occasionally interacts with the Office of Nuclear Reactor Regulation staff to obtain technical guidance and to assist in resolving technical problems pertaining to the regional reactor operations inspection functions.

Outstanding inspection items are followed up and reinspected in a timely and technically sound manner.

When directed, issues Morning Reports and Preliminary Notifications.

Maintains a sound familiarity with licensee emergency response facilities.

Participates in hearings relating to areas of responsibility for his assigned facility.

Responds to questions from the news media or the public regarding activities at the assigned facility.

REGULAR DUTIES (continued)

Occasionally, when so directed, attends meetings and communicates with other 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.

Participates in the Systematic Assessment of Licensee Performance process.

Recommends to Senior Resident Inspector the appropriate enforcement action to be taken.

BASIC SKILLS

Knowledge of nuclear engineering such as could be obtained by receiving a B.S. or advanced degree in engineering or the sciences. Knowledge and understanding of reactor engineering, nuclear plant maintenance and operation necessary to evaluate and make judgments regarding adherence to regulatory requirements, and sound engineering practice for the assigned nuclear power reactor facility is required.

Detailed knowledge of related aspects of security, environmental, health physics and safeguards sufficient to evaluate compliance with rules and regulations and assess adequacy of operational safety at the assigned nuclear power reactor facility.

Specialized knowledge of the theories, principles, practices and applications of nuclear engineering and demonstrated experience in reactor design and operation 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 operation of reactor plants in assigned areas of specialization.

Detailed knowledge of several reactor operations areas of specialization such as integrated plant operation (BWR and PWR); engineering safeguards systems (BWR and PWR); instrumentation, electrical and mechanical systems (BWR and PWR); thermal, hydraulic and nuclear design (BWR and PWR); containment leak rate testing; accident analysis; station procedures, operational quality assurance, core surveillance; and plant startup (includes preoperational testing, initial fuel loading, initial criticality and approach to power testing).

Detailed knowledge of all NRC rules, regulation, 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.

BASIC SKILLS continued

Skill in clear presentation (oral and written) of informational and technical material. Ability to maintain technical proficiency and understand the latest developments, and to participate in the development and improvement of reactor inspection techniques and standards.

Incumbent should be mobile and willing to relocate as the needs of the NRC dictate.

CONTACTS

Occasional personal contacts with regional office management on matters related to the execution of the reactor operations inspection functions.

Continuous contact with all levels of licensee and contractor personnel on site including site manager. Occasional contact with utility and contractor corporate level managements.

Occasional contact with local news media personnel and members of the public regarding incidents, special enforcement actions, investigations or response to routine information requests.

Occasional participation in public hearings, ACRS presentations or briefings and meetings with NRC personnel from Regional or other NRC offices.

Frequent contacts, as directed, with professional staff of the Office of Nuclear Reactor Regulation 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.

Contacts with crafts employees, foremen, superintendents, and quality assurance personnel of licensee to inform them of NRC's role and to learn of possible problems, e.g., improper practices such as unwarranted short-cuts, use of wrong materials, assignment of unqualified workers.

RESPONSIBILITY FOR DECISIONS

Supervision Received

Senior Resident Inspector

General supervision except when detailed guidance is required, or complex enforcement or management problems require resolution.

Guides are appropriate parts of 10 CFR, the NRC Management Directors System, Regulatory Guides, Regional Office Policy Guides, inspection plans and procedures as well as established NRC techniques and standards for facility inspection.

#### Independent Action

Inspects licensee activities under the guidance of the Senior Resident Inspector.

Makes on-the-spot technical judgments and decisions concerning safety practices and licensee compliance while inspecting reactors and nuclear facilities on routine matters.

As assigned, is effective in leading inspections involving two or more inspectors.

Prepares and submits to Senior Resident Inspector statements of conclusions, recommendations, and technical judgment as to the adequacy of safety and compliance based on inspection findings of licensed activities in incumbent's areas of technical specialty.

As assigned, performs the function of acting Senior Resident Inspector.

#### Recommendations

Calls to attention of Senior Resident Inspector conditions which may lead to cessation and/or reduction of activities. Recommends, to the Regional Office, enforcement action or changes to the facility Master Inspection Plan when warranted, and changes to the NRC inspection manual, and facility Technical Specifications.

Prepares drafts of enforcement actions for section chief's review and approval.

Recommends and drafts, as directed, proposed generic communications.

#### SUPERVISION EXERCISED

None

#### WORKING CONDITIONS

Majority 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. The work schedule is sufficiently flexible to facilitate inspections of all shifts and of special plant manipulations or operations.

Resident Inspector (Nuclear Engineer), GG-0840-13  
Division of Reactor Projects  
Region IV

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EFFORT

Work may require extensive walking, climbing, standing, and exposure to inclement weather.