UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
Washington, D.C. 20555

INSPECTION AND ENFORCEMENT MANUAL

CHAPTER 2500

REACTOR INSPECTION PROGRAM

2500-01 PURPOSE

To establish the inspection program policy for all reactors and to provide definitions of inspection frequencies, responsibilities and authorities of the Regional Administrators and Director, IE, and general inspection policies and guidance.

Associated 25XX chapters provide specific guidance and schedules for the inspection of all phases of operation of light-water and high-temperature gas-cooled reactors and research and test reactors. Operational phases include: pre-CP (pre-construction permit), construction, preoperational testing and operational preparedness, startup testing, operations, and decommissioning.

2500-02 OBJECTIVES

To obtain sufficient information, primarily through direct observation and verification of licensee activities, to ascertain whether reactor facilities are being constructed and operated safely and in compliance with license and regulatory requirements. Additionally, this program attempts to ascertain whether licensee management programs are effectively implemented to ensure both the safe design, construction, and operation of reactor facilities and the health and safety of the public.

2500-03 DEFINITIONS

Frequencies of inspection are defined as follows:

Monthly. The inspection effort shall be performed 12 times during a 12-month period so that the interval between inspections is no less than 2 weeks and no greater than 6 weeks.

Quarterly. The inspection effort shall be performed four times during a 12-month period so that the interval between inspections is no less than 2 months and no greater than 4 months.

Three times/year. The inspection effort shall be performed three times during a 12-month period so that the interval between inspections is no less than 3 months and no greater than 5 months.

Annually. The inspection effort shall be performed an average of once every 12 months so that the interval between inspections is not less than 9 months and no greater than 15 months.

Every 2 years. The inspection effort shall be performed an average of once every 24 months so that the interval between inspections is no less than 18 months and no greater than 30 months.

Every 3 years. The inspection effort shall be performed an average of once every 36 months so that the interval between inspections is no less than 27 months and no greater than 45 months.

2500-04 RESPONSIBILITIES AND AUTHORITIES

04.01 Director, Office of Inspection and Enforcement. With respect to the reactor inspection program, the Director, Office of Inspection and Enforcement: R R R

a. Develops and directs the implementation of policies, programs, and procedures for regional and headquarters inspection of applicants, licensees, and other organizations subject to NRC jurisdiction. R R R

b. Assesses the effectiveness, uniformity, and completeness of regional implementation of the reactor inspection program. R R

04.02 Regional Administrators. With respect to the reactor inspection program, the Regional Administrator: R R

a. Manages and supervises the implementation of policies, programs, and procedures for regional inspection of applicants, licensees, and other organizations subject to NRC jurisdiction within the region. R R R

b. Manages and supervises the inspection of architect/engineer and constructor activities performed by applicants or licensees. R

c. Manages and supervises the inspection of onsite activities performed by organizations other than the applicant or licensee. This includes the inspection of site-originated records that may be stored at contractor/vendor home or branch offices outside the region. R R R R

2500-05 GENERAL POLICIES

05.01 Authority. The responsibility assigned to IE by 10 CFR establishes the foundation on which the reactor inspection program is structured, and it confers on the regions the authority to inspect activities over which the NRC has jurisdiction. R R R R

05.02 Licensee Responsibility. It is emphasized that it is the licensee's responsibility to construct and operate the facility safely and in compliance with construction permit and license provisions and regulatory requirements. Regional inspections are not designed to duplicate or substitute for a licensee's management controls established as a part of its quality verification system. Although regions may question the adequacy of the methodology used by the licensee, it is not a region's

function to recommend modes of operation to the licensee unless such a mode is definitely established by a regulatory requirement.

05.03 Development and Implementation of Inspection Requirements. The elements used in developing detailed inspection requirements include regulatory requirements, regulatory guides, industry standards, NRC interpretations and positions deemed sufficiently significant for inclusion in the inspection program, and experience (i.e., the findings from the nuclear industry and the NRC quality verification and inspection programs and the technical judgment of engineers and scientists in industry and the NRC). Inspection procedures identify requirements that the regional inspector must consider while evaluating the functional area inspected. These requirements are not necessarily the same or even related to NRC requirements placed on a specific licensee. As such, it is not implied or intended that IE inspection program requirements be levied on the licensee. Any attempt to force inspection program requirements on the licensee constitutes misinterpretation of NRC inspection philosophy and misuse of inspection procedures.

The regional inspector is not limited to inspecting only those activities related to current regulatory requirements or specific licensee commitments; the inspector also is responsible for identifying areas in which the licensee is not constructing and operating the facility safely. This latter responsibility is reflected in numerous inspection procedures.

05.04 Feedback Process. It is through the inspection activity of Subsection 05.03 that regions evaluate licensed activities as a basis for recommending changes to NRC regulations, regulatory guides, and inspection requirements. Inspectors or other regional personnel must determine whether a matter affecting safety exists and whether substantial additional protection is required. Identification of a safety issue where no licensee commitments or specific regulatory requirements apply is appropriate for inclusion in the feedback process. On the other hand, specific inspection requirement findings that do not point to a safety issue are not appropriate for this feedback process or for enforcement action.

05.05 Changes to License or Technical Specifications. During the lifetime of the facility, the licensee may desire to amend the facility license or initiate a change in the Technical Specifications. Depending on the significance of the requested action, the licensee's application may have to be reviewed by the Advisory Committee on Reactor Safeguards (ACRS). In addition, meetings between the licensee and the Office of Nuclear Reactor Regulation (NRR) may be required to review specific details of the proposed amendment or to resolve potential technical specification problems and/or problems of a technical nature.

05.06 Communications. In implementing the inspection program set forth by this manual chapter, frequent communications between regions and other offices within the NRC are encouraged. In general, the inspector should feel free to pass information regarding a specific project to NRR and request information regarding a specific project from NRR (normally at the project manager level). Matters included within this category are questions pertinent to inspection dates, inspection reports, document issuance schedules, and other matters not relating to an NRC office statement of position. R

Matters pertaining to suspected material false statements identified during the course of an inspection of licensee activities must be promptly communicated to the Office of Investigations (OI). Licensees, should not be advised that a suspected material false statement is being referred to OI before referral.

05.07 Emergency Preparedness. Appendix I to this manual chapter provides policy and guidance for the level of inspection effort and size of inspection teams for exercise observation. R R R

2500-06 COMPLETION OF THE INSPECTION PROGRAM

06.01 Desired Level of Assurance. Regional Adminstrators are assigned the responsibility for managing and supervising the implementation of the Reactor Inspection Program promulgated by this manual chapter. This Program is intended, in part, to provide the desired level of assurance that applicants or licensees are complying with NRC regulations, rules, orders, and license provisions and are taking appropriate actions to protect nuclear materials and facilities, the environment, and the health and safety of the public. The prescribed inspection program should be completed at each facility to achieve this desired level of assurance. The credibility of the inspection program depends on the level of technical detail achieved during the inspector's review.

06.02 Inspection Line Items. The requirements section of each inspection procedure contains an item-by-item listing of inspection activities which the inspector is to conduct. Line items should reflect inspection objectives. In the aggregate, these line items reflect the collective judgment and experience of IE personnel responsible for program development and regional personnel responsible for program implementation. R

06.03 Management of the Inspection Program. A regional Division Director's decision to relax inspection program requirements must be governed by whether the resulting level of safety assurance remains adequate to allow continued operation or issuance of a license. Failure to complete the inspection program does not infer that licensed activities are not in compliance or not safe; it does infer that the region has achieved something less than the desired level of assurance.

It is recognized that management of inspection program implementation in a manner that maintains quality and achieves completion is a challenge. This is especially true in an uncertain environment of existing or anticipated shortages in inspector manpower, variable productivity of inspectors, unknown levels of future reactive inspection and investigative effort, and expenditure of inspector resources in noninspection tasks.

06.04 Independent Inspection Policy. It is IE and regional management policy that all inspectors be afforded the opportunity to independently explore any nuclear safety significant activities by licensees that are of interest or concern to the inspector. On an annual basis, it is expected that about 20% of the inspector's assigned direct inspection time routine and reactive) will be available for such activities. For example, a full inspection week by the regional inspector (about 30 direct inspection hours) might normally be composed of about 24 hours devoted to a specific preplanned inspection procedure and about 6 hours devoted to "independent inspection activity." Note that the independent review may or may not be R R

in the same programmatic areas covered by the inspection procedures used for the majority of the week's activity.

06.05 Reporting of Independent Inspection. While inspectors are encouraged to independently review any nuclear safety significant areas, it is assumed that at least one IE inspection procedure exists that generally covers the area being independently examined. To gather inspection data in programmatic areas for such areas as SALP and budgeting, it is expected that independent inspection time will be recorded against the existing inspection procedure(s) which most closely describes the activity being reviewed on an independent or more indepth basis. Therefore, this policy supersedes the prior practice of recording independent inspection time against "Independent Inspection Effort." R

06.06 Onsite Coverage by Resident Inspectors. The presence of resident inspectors onsite represents a major component of the NRC inspection program. Resident inspector monitoring of licensee activities is especially important for operating reactors. The following policy in scheduling resident inspector absences will ensure that resident inspection activities are adequately carried out. Situations occasionally arise where regional management may determine that it is best to deviate from this guidance to effectively utilize overall inspection resources. This guidance should apply in normal situations and is not meant to prevent regional management from scheduling inspection coverage at facilities in abnormal situations to ensure nuclear safety. R

a. Periods of absence (leave, training, meetings, other inspections, etc.) of resident inspectors assigned to construction activities normally should be scheduled by regional supervision, taking into account the licensee's schedule for construction activities. Significant activities should be covered by qualified regional inspectors as deemed necessary by regional management. It is expected that all resident inspectors assigned to construction units at a site would not be absent from the site for longer than 2 consecutive working weeks without regionally based inspection coverage.

b. Periods of absence of resident inspectors assigned to monitor the preoperational testing program should be scheduled by regional supervision so that activities requiring inspection in accordance with MC 2513 (or other important activities) are adequately covered. Whenever all the resident inspectors assigned to a site are going to be absent for more than 5 consecutive working days, inspection coverage by personnel qualified to review the testing program should be provided. This condition normally occurs at sites where one resident inspector is assigned.

c. Periods of absence of assigned resident inspectors at startup or operational sites where two or more inspectors are assigned should be scheduled so that absence of all resident inspectors from the site does not exceed 5 working days. This includes outage periods. Whenever all the resident inspectors assigned to a site are going to be absent for more than 5 consecutive working days, inspection coverage by personnel capable of performing the minimum inspection program should be provided. This condition normally only occurs at single-unit sites where only one operations resident is assigned.

2500-07 NRC VISIBILITY

07.01 An important factor in the effectiveness of the inspection program is the NRC's visibility to licensee employees and the general public. This section gives recommendations that should be considered in publicizing NRC's presence, specifically at licensee facilities for power reactors.

a. The resident inspector's site telephone number should be widely publicized, especially in the metropolitan telephone directories throughout the region. As a minimum, the resident inspector's and regional office telephone numbers should be published in the nearest metropolitan area directory.

b. The resident and regional telephone numbers should be advertised further such as, on signs outside the resident's office, advertisements in worker periodicals (union publications), postings on plant and commercial (public) bulletin boards and so on.

c. All collect calls should be accepted without attempts to screen calls.

d. Any advertising should specify that only government personnel can be contacted via this number. This should reduce the "I am looking for" calls.

e. A resident inspector's office at the site should be selected (request made to licensee) with visibility in mind.

f. At sites where the resident's office is not visible, signs should be posted showing how to get there. Elevated signs will reduce defacing.

g. Resident inspectors should be encourage to wear identifying clothing or safety gear, such as NRC hardhats.

h. Permission should be sought from each reactor licensee to place an NRC bulletin board in a highly visible site location. These boards should include the name, telephone number, and perhaps pictures of the resident inspectors and regional office management personnel. Information on the responsibilities of the NRC also could be made available along with copies of press releases and other information of interest to site employees.

i. Public SALP meetings should be utilized as a vehicle to introduce the resident inspector to the local community.

j. Resident inspectors should be encouraged to accept invitations from local civic, school, and labor groups to give presentations on the NRC and the resident inspector's role.

END

Appendix I

APPENDIX I

LEVEL OF INSPECTION EFFORT AND SIZE OF INSPECTION TEAMS FOR EMERGENCY PREPAREDNESS EXERCISE OBSERVATION R

A. PROGRAM APPLICABILITY

This guidance applies to programs specified in Manual Chapters 2513, 2514, 2515, and 2525.

B. DEFINITIONS

The following are descriptions of each type of emergency preparedness (EP) exercise and the conditions under which each is held:

Full-Participation Exercise. This exercise is conducted onsite and offsite to test as much of the licensee, state, and local emergency plans as reasonably achievable without mandatory public participation. It is normally conducted biennially at all sites where one or more operating reactor units are located.

The First Full-Participation Exercise. This is the first exercise conducted at a reactor site and involves full-participation by the licensee and participation by each state and local government within the 10-mile plume exposure pathway emergency planning zone (EPZ) and each state within the 50-mile ingestion exposure pathway EPZ. This exercise is normally required to be held within 1 year before the first full-power operating license is issued and before operation above 5% of rated power of the first reactor at that site. However, because of a 1984 court decision permitting litigation of exercise findings at a license hearing, many applicants request an initial exercise earlier than required to permit timely completion of a hearing prior to licensing. Another exercise may be required in order to fulfill the 1-year provision.

Partial-Participation Exercise. This exercise involves full-participation by the licensee, but state and local participation may be partial because of involvement with more than one reactor site within their jurisdiction. Normally, local participation is full and state participation is partial. As a minimum, this exercise tests implementation of the licensee's onsite emergency plans, coordination and communication between the licensee and offsite authorities, and protective action decision-making. It is normally conducted biennially.

Licensee-Only Exercise. This exercise is conducted onsite to fulfill the licensee's annual exercise requirement during a year when neither a full-participation nor a partial-participation exercise

is held. It normally involves full participation from the licensee with little or no participation by state and local governments.

Remedial Exercise. This exercise is generally held at the request of FEMA to demonstrate the correction of specific deficiencies identified during the exercise in offsite emergency planning and normally does not directly involve the licensee. However, there may be instances when poor licensee performance during the annual exercise would require a remedial exercise.

C. LEVEL OF INSPECTION EFFORT FOR EXERCISE OBSERVATION

With the exception of the first full-participation exercise at single unit sites, the level of inspection effort and corresponding team size for exercise observation should be based on past licensee performance, recent EP inspection findings and SALP ratings, and regional assessment of the current status of the licensee's emergency preparedness program. For example, favorable SALP ratings coupled with consistently good performance in areas of observation may result in decreased inspection effort in those areas. Conversely, if licensee performance in the EP area appears to be declining or if specific aspects of exercise performance are repeatedly substandard, intensification of inspection effort is warranted. It is expected that more total time will be expended for some facilities than others.

D. RECOMMENDED SIZE OF INSPECTION TEAMS

The region will determine the team size, establish the team and provide the team leader for all exercise inspections. Where specific resource allocations for a particular phase of nuclear power plant operation are included in an inspection procedure, they should be followed.

1. The First Full-Participation Exercise. Up to 7 or 8 team members are normally sufficient to observe the first full-participation exercise. The team generally consists of the team leader, one or more regional inspectors, one Headquarters EP licensing representative, several contractors and may include one or more resident inspectors.

2. Full- and Partial-Participation Exercises. Inspection teams for these types of exercises normally consist of the regional team leader, one resident inspector and one contractor. In addition, one Headquarters observer is generally provided for one half of the exercises conducted.

3. Licensee-Only Exercises. Up to 3 team members are normally sufficient to observe a licensee-only exercise. Resident inspectors should be included in the inspection team.

4. Remedial Exercise

   a. Regional inspectors do not normally observe remedial exercises requested by FEMA for the correction of offsite

deficiencies identified during the exercise. However, depending upon inspection priorities, onsite activities may be observed by the resident inspector(s) when the licensee elects to participate in a remedial exercise requested by FEMA.

b. When a remedial exercise is required by the NRC, team size will depend on the number and nature of the problems identified during the previous exercise. Depending on the nature of the problems identified and inspection priorities, some onsite drills may be limited to observation by the resident inspectors.

END