TEMPORARY INSTRUCTION 2600/XXX

RESIDENT INSPECTION PROGRAM FOR CATEGORY I FUEL CYCLE FACILITIES

PROGRAM APPLICABILITY: 2600

LPR FUNCTIONAL AREAS: SAFETY OPERATIONS, SAFEGUARDS, RADIOLOGICAL CONTROLS, AND FACILITY SUPPORT

2600/XXX-01 OBJECTIVES

This temporary instruction (TI) establishes and describes requirements for the resident inspection program for Category I fuel cycle facilities[1] on an interim basis, until a new revised fuel cycle facility oversight program is implemented in the next 18 to 24 months. The resident inspection requirements described herein are intended to independently determine, in a risk-informed manner, whether the licensee:

01.01 Operates the facility safely and securely;

01.02 Performs maintenance, surveillance, engineering, and other safety-related or safeguards-related activities, in conformance with regulatory requirements, license conditions, and other licensee commitments, and in accordance with established procedures;

01.03 Implements effective controls to achieve continued safe and secure operation of the facility at an acceptable level of risk;

01.04 Maintains systems relied upon for safety to be operable and reliable; and

01.05 Tracks and verifies completion of approved corrective actions according to specified schedules, consistent with risk-significance.

[1]Category I fuel cycle facilities are those where the licensee is licensed to possess quantities of Category 1A or 1B nuclear material, as defined in 10 CFR Part 74.4.

This TI supercedes the requirements in NRC Manual Chapter 2610, which addressed the resident inspection program at a single specified Category I facility.

2600/XXX-02 BACKGROUND

Existing guidance in the NRC Inspection Manual Chapters (IMC) does not adequately describe the resident inspection program for Category I fuel cycle facilities. IMC 2600 establishes safety and safeguards inspection programs for all NRC-regulated fuel cycle facilities. While IMC 2600 discusses resident inspection programs, and refers to a more detailed description of a resident inspection program in IMC 2630, IMC 2630 is specific to the resident inspection program at the Gaseous Diffusion Plants only, and does not formally apply to Category I fuel cycle facilities. Further, IMC 2610 describes a resident inspection program for a specific Category I facility, but does not formally apply to Category I facilities, in general.

This TI formalizes, on an interim basis, guidance for the more risk-informed resident inspection programs currently being conducted at NRC-regulated Category I fuel cycle facilities, in lieu of completely revising IMC 2600. Another effort is currently under way to substantially revise the oversight program for all NRC-regulated fuel cycle facilities, using performance indicators and more explicit consideration of facility risks. This TI will be used until supplanted by provisions of that revised oversight program.

2600/XXX-03 INSPECTION REQUIREMENTS

Inspectors are responsible for adhering to the requirements specified in this procedure to the extent they can reasonably assure that the inspection objectives are met. On occasion, they may deviate from this procedure due to the exigencies of plant operations (e.g., shutdowns, incident response, etc.), or in response to performance concerns in other areas. Sustained superior licensee performance in one inspection area (verified by inspection results) may justify occasionally deviating from a particular inspection requirement, for the purpose of focusing additional inspection effort on another area or activity where there are performance concerns or greater risks. Significant or sustained shifts in inspection focus or other deviations from this inspection guidance should be discussed with the Regional office's Branch Chief for fuel cycle inspections, to determine and document how to best meet the inspection objectives.

03.01 Daily Inspections. Conduct selective examinations of the following areas of concern, on a day-to-day basis, with the goal of sampling all areas involving the use of licensed nuclear materials with a frequency commensurate with its current relative safety or safeguards significance.

a. Operating Area Observations

1. Determine whether adequate staffing is maintained for the tasks being performed.

2. Determine the attentiveness of the operators in carrying out their assigned duties.

3. Determine whether operators are adhering to approved procedures, including normal, abnormal, alarm response, and emergency procedures, for any ongoing activity. Determine whether safety-related work station postings are appropriate and in accordance with procedures.

4. Review the adequacy of communications between supervisors and operators, and determine whether supervisors are providing adequate oversight.

5. Identify whether abnormal conditions, events, or significant issues that affect the safety of operations or the security of licensed material have occurred since the last review. Determine whether the licensee has taken, or is taking, appropriate corrective actions.

6. Examine the status of selected control panel instrumentation. Ensure that operators understand the reasons why annunciators may be in an alarm condition, or why annunciators might have been removed from service. If an off-normal condition or false annunciation signal exists, determine whether timely and appropriate actions are being taken to correct the situation.

7. Inspect required safety-related (or safeguards-related) instruments and equipment to determine their operability. Observe whether the instruments or equipment are being appropriately used, perfunctorily used, or if they are being bypassed.

8. Review log books and plant trouble reports to obtain information concerning operating trends and activities, and to note any out-of-service safety systems. Visually inspect tags on the control panels to determine their ages, whether they are consistent with the tagout log, and how they impact plant safety. Where out-of-service equipment is noted, determine if compensatory measures are appropriate and adequate.

9. Review the licensee's jumper/bypass log to verify there are no conflicts with license and procedure requirements, and that safety evaluations have been performed, if required. Verify the licensee is actively pursuing correction action for conditions requiring jumpers, and that jumpers/bypasses have been installed and removed properly. When the use of jumpers or lifted leads results in inoperability of safety systems, determine whether appropriate compensatory actions have been implemented.

10. Audit the performance of periodic surveillances required by the license or the licensee's procedures, and determine whether audit results and responses to the audit results comply with requirements.

11. Determine (on a sampling basis) the operability of safety-related sensors that provide inputs to alarms or actuators, including the sensor's current calibration, and the operability of the required number of channels. Examples include in-line monitors, safety-related valves with automatic actuations, negative pressure indicators, conductivity probes and indicators, and scales.

12. Verify that operators are aware of nearby activities in progress that could influence safe operation of equipment. Verify that these activities are being conducted in accordance with the licensee's administrative controls, and that they do not threaten the safe operation of the facility.

13. Verify that plant staff ending their shifts adequately convey all necessary safety-related information concerning plant systems status to the staff for the oncoming shift, during shift turnovers.

14. Determine whether workers are following the licensee's health physics procedures (e.g., properly wearing required personnel dosimetry, using protective clothing, properly frisking upon exiting a radiation controlled area).

15. Determine that radiation areas are properly posted.

16. Determine the operability of randomly selected radiation protection instruments that are in use, and licensee adherence to their calibration frequencies. Select from portable instruments, area samplers and monitors, friskers, and counting equipment.

17. Determine whether persons within the protected area (PA) display proper photo identification badges and those requiring escort are properly escorted.

18. Determine whether personnel and packages entering the PA at access portals are searched using appropriate search equipment.

19. Determine whether Material Access Area (MAA) portals are controlled appropriately.

b. Plant Tour. Tour a portion of the facility area involved in processing licensed nuclear materials. This should include both interior and exterior areas. Over an extended period, the

entire area of the facility used for processing licensed materials should be covered, but portions where the dominant safety risks at the facility are presented should be toured more frequently, in proportion to the current relative safety risk.

Independently assess the safety conditions and adequacy of plant equipment. Consider the following during the tour:

1. General plant cleanliness and equipment conditions that could affect clear egress along established evacuation paths, or increase the potential for accidents that could adversely affect control of nuclear material.

2. Plant areas where there is a potential for missile hazards caused by improper or unauthorized handling or storage of portable gas cylinders, that could cause unacceptable damage to equipment or stored nuclear material with safety significance.

3. General plant areas where there may be unauthorized storage of flammable material or excessive fire loads, posing explosive or incendiary risks.

4. Proper storage of hazardous chemicals that could affect control of licensed nuclear material.

c. Plan-of-the-Day-Meeting. Attend appropriate portions of the licensee's plan-of-the-day meeting to determine overall status of the plant.

03.02 Periodic Inspections

a. Approximately every six weeks, perform a general walkdown of a selected safety-relevant system involved with the processing of licensed nuclear material. The inspector should use the walkdown to independently verify conformance to the license and the corresponding safety analysis.

1. Review the safety analysis for the system, to identify assumptions and controls. Select a sampling of specific assumptions and controls, and verify their proper implementation in the field, as embodied in engineered and administrative controls. Determine whether plant personnel are aware of the relevant assumptions and controls and have received appropriate training in their implementation.

2. Examine whether the procedures associated with the licensee's system are consistent with currently approved drawings and the as-built configuration.

3. Examine whether newly approved drawings match the as-built configuration.

4. Determine whether operators understand and can identify items of equipment, portions of operating procedures, and process parameters that are safety-related.

5. Verify that safety-related instrumentation is properly installed, currently calibrated and functioning, and that safety-significant process parameter values are consistent with normal expected values.

6. Verify that safety-related valves in the nuclear material flow path are in their correct positions, as required by procedure. Verification can be established either by flow indication, visual observation, or remote position indication. Verify that power, if required, is available to the valve; that valves are locked in position, as appropriate; and that local and remote position indications are functional and indicate the same values.

7. Verify that stand-by support systems essential to safety system actuation or performance (interlock, pump trip, cooling water, ventilation, lubrication, compressed air, etc.) are operable on demand.

8. Verify that other support systems essential to safety system performance are operable and that their integrity has been maintained (e.g., no leaks, corrosion, or damage).

9. Verify that other safety-related devices (Raschig rings, poison panels, spacing hardware, etc.) are as required by the license and procedures.

1Ø. Identify equipment conditions and items that might degrade plant performance. Specifically, verify that:

    (a) General housekeeping is adequate, and appropriate levels of cleanliness are being maintained, sufficient to assure that evacuation paths are clear, and the potential for accidents that could adversely affect control of nuclear material is minimized.

    (b) Safety-significant freeze protection, such as insulation, heaters, air circulation systems, and other equipment, is installed and operational.

    (c) No prohibited ignition sources or flammable materials are present in the vicinity of the system being inspected, unless proper authorization has been granted, and any required compensatory measures have

been implemented (e.g., posting a fire watch, prohibiting welding, etc.).

(d) No significant quantities of prohibited moderator materials are present in areas posted as being moderation controlled.

(e) Major system components are properly labeled, lubricated, and cooled (cooling water/ventilation), and there is no evidence of safety-significant leakage or corrosion.

(f) Safety system performance is not degraded by the imposition of ancillary equipment (i.e., scaffolding, ladders, tape, electrical cords, portable air samplers, etc.).

b. Review the "problem-identification systems" (trouble reports, non-conformance reports, etc.) , by selecting and examining a sampling of items, to verify that:

1. These licensee systems are functioning;

2. The licensee is tracking known deficiencies (identified during other inspection activities, audits, and self-assessments) via one or more problem-identification or corrective action systems;

3. The licensee has adequately determined the root cause(s) for the problem;

4. The licensee has determined appropriate corrective actions and compensatory measures (to be maintained until the corrective actions are completed);

5. The licensee has implemented any compensatory measures that have been determined;

6. The licensee has scheduled completion of the corrective actions, and that they are on schedule;

7. The licensee has evaluated the problem to determine the applicable reporting requirements; and

8. The appropriate level(s) of plant management, and the NRC (if required), have been informed.

Ø3.Ø3 Quarterly Inspections

a. Determine if all required notices to workers are appropriately and conspicuously posted in accordance with 1Ø CFR 19.11.

b. Select an active Radiation Work Permit (RWP), and determine whether the prescribed controls and precautions are being adequately implemented. A different RWP should be inspected each time.

c. Review the licensee's self-assessments, if any, and determine their effectiveness. Verify that the licensee has entered any corrective action recommendations into the appropriate licensee tracking system.

d. Contact the licensee to keep informed of any third-party reviews, evaluations, inspections, or their results, addressing safety significant issues. For those studies conducted, determine whether the licensee has evaluated the results, and initiated corrective actions for the findings.

e. Conduct a fire safety tour of various sections of the plant, such that the entire plant is covered on an annual basis. Concentrate on areas where a fire, or its effects, would pose the greatest risks of loss of control or emission of nuclear material. Look for potential fire hazards, especially in areas where HEU or process chemicals are stored or processed. Ensure that water or other moderators would not be introduced into moderation controlled areas to fight fires. Also, walk down portions of the fire protection system to verify the correct alignment, condition, and operability of the equipment.

f. Determine whether items of Special Nuclear Material (SNM) and SNM-bearing containers are uniquely identified, and whether the items of SNM, or containers of SNM-bearing materials removed from process, are tamper-safed.

g. Observe the following security program measures or activities to determine whether they meet license requirements:

    1. General integrity of protected area (PA) barriers.

    2. Maintenance of the isolation zones around PA barriers.

    3. PA illumination levels.

h. Observe whether the designated emergency response facilities (ERFs) are readily available and maintained ready for emergency operations.

i. Review results of liquid and gaseous effluent measurements to determine if any action levels were exceeded, and if so, evaluate the licensee’s corrective actions.

Ø3.Ø4 Annual Inspections

a. Observe an emergency preparedness drill.

b. Observe a tactical response team exercise.

2600/XXX-04 INSPECTION GUIDANCE

General Guidance

The safety basis for the plant is described in the license application and other licensing correspondence, the Safety Evaluation Report (SER), Hazardous Operations (HAZOP) (or similar) reviews, Integrated Safety Analysis (ISA) reviews, Nuclear Criticality Safety (NCS) evaluations, and license conditions. The inspectors are expected to become familiar with these documents and methods by which the licensee implements them.

To the maximum extent practicable, accomplish the selective examination requirements of this TI by direct observation of safety-significant activities and equipment, tours of the facility, interviews and discussions with licensee personnel, independent verification of safety system status and corrective actions, and review of facility records.

a. Inspection Hazards. The inspectors must be aware of the hazards associated with entry into various areas of the facility, and take appropriate precautions, including adhering to the licensee's rules for entry and work in these areas. Climbing and engaging in other hazardous activities should not be done alone. Conduct of this type of activity should occur in the company of another inspector or a licensee representative, if necessary and appropriate.

   Inspectors touring a facility, particularly on backshifts, are subject to occupational hazards, the effects of which would be exacerbated if an injury occurred in a remote, seldomly visited area. For that reason, inspectors need to be particularly safety-conscious during backshift inspections, and may wish to notify the control room of their itinerary, or accompany an operator conducting equipment rounds.

   The inspector is expected, during the course of these tours and inspection activities, to enter contaminated areas and radiation areas. It also may be necessary, periodically, to enter areas requiring respiratory protection. Attempt to minimize personnel exposure and balance such exposure among different inspectors assigned to the site. Inspection tasks such as routine valve lineup verifications, housekeeping inspections, and fire protection observations can normally wait until the plant's operational condition permits the entry to be made without unwarranted exposure, and without degrading the effectiveness of the inspection program.

b. Determination of Valve Positions. Some inspection activities require the inspector to independently verify valve positions.

This means the inspector observes the positioning of the valve stem, position markings, etc. Valve position verification is to be accomplished visually or by flow indication. If the inspector requires more than visual verification, request the assistance of an operator. Inspectors and licensee personnel, alike, sometimes have difficulty in ascertaining valve position using visual inspection alone. The common practice of attempting to close a valve to verify position does not always detect the open position of an infrequently operated valve that may be frozen open on its back seat. Valve stem indication is not always operational or available.

c. Electrical Inspection Guidance. Some inspection activities require access to the interior of electrical panels and breaker cabinets. In those cases, the inspector should request licensee personnel to open and close cabinet doors, and should avoid physical contact with the equipment.

d. Risk-Based Inspection Guidance. Consider the associated risk significance when selecting the inspection sample of components and systems. Emphasis should be placed on liquid HEU processing systems and components and potential fire hazards that could provide a driving force to spread a hypothetical release offsite. Inspector judgement will also be necessary for identifying activities posing the greatest risk to personnel on site. Additional information regarding these risks may be available from the licensee's ISA, and from interviews of licensee personnel. The sample lots chosen should be varied from one inspection period to the next to ensure the sampling is representative of the dominant safety risks from all areas of the plant.

e. Evaluation of Licensee's Self-Assessment Capability. NRC experience indicates that licensees with effective self-assessment and corrective action programs achieve superior operating performance. Self-assessment organizations act in a measurement and advisory capacity, monitoring the overall performance of the plant; identifying substandard or anomalous performance and precursors of potentially more serious problems. They should be reporting findings and assessment results in an understandable form, and in a timely fashion, to a sufficiently high level of line management with authority to effect corrective action. An effective self-assessment organization is technically proficient and performance-oriented. An effective self-assessment program should minimize the recurrence of safety-significant problems.

This inspection provides a means to ensure that self-assessments are effectively contributing to the identification, correction, and prevention of safety significant technical problems and deficiencies in plant systems and operations. This inspection requires the inspector to make judgments based on information

obtained through interviews, observations, and review of available documentation.

Specific Guidance

04.01 Daily Inspections.

a. Operating Area Observations

1. Determine whether procedural controls (including work authorizations, tagouts, and equipment lineup verifications) are in place for work observed in progress. Question operators regarding specific tagout actions required by tags hung on the control panels, as well as what action is being taken to remove old tags.

With regard to reviews of NCS implementation:

(a) NCS procedures should be available to operators at or near work stations. Work areas should be posted with limits that are in accordance with requirements stated in the license application, NCS analyses, and licensee procedures.

(b) Signs and labels should be posted on equipment, work stations, work areas, birdcages, storage racks, transfer containers, etc.

(c) Unfavorable geometry containers should be precluded from designated areas, or have appropriate nuclear criticality safety controls on their use.

The resident inspectors are not expected to conduct in-depth criticality safety reviews. Rather, they are to trace the controls that are established by the licensee department responsible for nuclear criticality safety, in their NCS analyses and procedures, to the field, to determine whether the other departments are actually implementing the designated controls. One purpose of this item is to conduct a performance-based check on the adequacy of communications between the NCS-responsible department and the other departments. Potential discrepancies should be brought to the attention of the NCS-responsible department for prompt resolution.

2. Evaluate the adequacy of the licensee's communications, on an ongoing basis, between the various departments, their approaches to resolving issues, and the overall conduct of plant operations. Note the level of management awareness of problems, and their participation and involvement in providing guidance and direction for problem resolution.

3. The major operating logs (facility or line, operator, shift supervisor, etc.) should be reviewed daily (or as frequently as practicable). The inspector should cover the period beginning with the last time the log was reviewed. For safety-significant or safeguards-significant events or malfunctions reported in the logs, ensure that the licensee took proper compensatory and corrective actions, and appropriately reported to licensee management or the NRC.

   Other operating logs and records should be identified and reviewed on a sampling basis during the reporting interval so that all safety-significant and safeguards-significant logs receive some review periodically. The size of the sample and degree of attention given these logs is left to the inspector's judgment and knowledge, in consideration of competing safety-significant activities in progress within the facility.

   Use information gained from reviewing logs and associated documents to assess, through direct interview of on-shift operators, the licensee operating staff's current knowledge of plant conditions, awareness of off-normal conditions and trends, work and tests in progress, and the effectiveness of shift turnover. Also, use the log and associated document review to look for indications that the facility does not meet the minimum requirements for safety-significant equipment and instrumentation availability.

   The intent of the review of the logs and records is to:

   (a) Obtain information to enable the inspector to remain cognizant of facility operations and problems.

   (b) Detect significant changes and trends in performance.

   (c) Detect possible inadequate safety practices, including indications that prerequisites of administrative procedures may not have been satisfied before startup or shutdown.

   (d) Identify problem areas for future followup.

   (e) Determine whether records are being maintained and reviewed as required by the facility's administrative procedures.

   (f) Assess the effectiveness of the communications provided by the logs and determine whether management is appropriately knowledgeable of problems identified in these logs.

(g) Selectively verify that required tests, surveillances, and surveys have been performed on schedule, including equipment operability surveillances, radiation protection surveys, and special samples or tests required as compensatory measures for equipment out of service.

(h) Verify that the NRC Operations Center has been notified of any reportable events, as appropriate.

(i) Remain cognizant of maintenance work planned, underway, or completed; and integrate this information into inspection activities to verify proper system removal and restoration, compliance with tagging and isolation requirements, effectiveness of Quality Assurance (QA) and Quality Control (QC) functions and radiation protection practices, compliance with license conditions for equipment out of service, and effectiveness of the maintenance organization.

4. The licensees should have established appropriate controls and communications to ensure that any outside group whose activities could affect the operability of safety equipment, components, systems, or structures, coordinates its planned work with the operations staff ahead of time, so that any required compensatory measures can be taken. It also ensures that the operations staff knows the current status of the facility, to properly respond to real off-normal conditions and not to a simulated condition. The inspector should observe interactions between the operations staff and other departments to see if these controls and communications are functional.

5. During their normal plant tours, resident inspectors have the opportunity to observe radiation protection controls as they apply to various plant activities in progress. The following are items that the inspectors should, on a sampling basis, note during tours:

(a) Whether personnel within a radiation controlled area are wearing personnel monitoring equipment (TLD or film badge), and if it is properly located on the body. Also, whether personnel are wearing required protective clothing.

(b) Whether individuals exiting contamination controlled areas follow proper frisking methods.

6. During normal plant tours, resident inspectors have the opportunity to make routine observations of various plant activities in progress, to determine if security provisions

are being satisfied. The following are items that the inspectors should note during tours, on a sampling basis:

(a) Whether search equipment such as X-ray machines, metal detectors, and explosives detectors are operational.

(b) Whether the protected area (PA) barrier is well maintained and remains uncompromised by erosion, openings in the fence fabric or walls, or proximity to vehicles, crates, or other objects that could be used to scale the barrier.

(c) Whether the MAA barriers are well maintained and remain uncompromised by obvious breaches or weaknesses.

(d) Whether access control procedures during shift changes include verification that personnel entering, and packages being delivered to, the PA are properly searched, and that access control functions are performed in accordance with licensee procedures.

(e) Whether the licensee implements appropriate compensatory measures to maintain the necessary level of security, as specified in the site security plan for area control, when search equipment or alarm systems are inoperable, or when there is a breach in the PA or MAA barrier.

b. Plant Tour. Facility tours need not be completed at one time, but can be a series of shorter tours of various areas of the facility conducted on a systematic basis, at different times, so safety-significant and safeguards-significant areas are covered with frequencies appropriate to their current safety or safeguards significance.

Be attentive to possible conflicts or tradeoffs between the effectiveness of safeguards measures and operational safety and emergency requirements. For example, stringent access control measures might interfere with essential (though perhaps unforeseeable) emergency actions, or emergency actions might compromise necessary access controls. Problems of this sort must be brought to regional management attention when it is determined that one or the other required control is ineffective due to a conflict.

The inspector will ensure that portable gas cylinders are excluded from areas containing safety-related equipment unless:

(a) Analysis indicates that portable gas cylinder missiles would not damage nearby safety equipment to the extent that their safety functions were compromised, or

(b) Procedures, barriers, or equipment are in place to protect the cylinders, and prevent them from becoming missiles.

In addition, the inspectors should be aware of the potential fire hazards associated with flammable material storage, and fire loading.

c. Plan-of-the-Day-Meeting. Attendance at a selected sampling of the licensee's plan-of-the-day meetings can be beneficial for both the licensee and the inspectors. The residents learn relevant facts regarding safety-significant or safeguards-significant issues at first-hand from those individuals most closely involved.

The inspector will be able to evaluate the adequacy of the licensee's approach to resolving problems by being knowledgeable of current issues. Additionally, the inspector will know which licensee individual or group is responsible for followup, making it more efficient for the inspectors to observe their actions and ascertain whether compensatory and corrective actions are properly implemented, or to obtain such additional details from them later, if necessary. Inspectors are encouraged to obtain plan-of-the-day documents when not in attendance at the meeting, to stay current on licensee activities.

04.02 Periodic Inspections

a. Safety System Walkdown. This safety system inspection is intended to be a selective in-depth verification of system operability. Before conducting the walkdown inspection activities, review the system description, any references to it in the ISA, relevant operating procedures, and the SER.

1. The walkdown can be accomplished using the licensee's system lineup procedures, provided they have been verified as correct by the inspector before use. The as-built drawings or printouts should be verified periodically by comparing them with the selected as-installed system. While a system is shut down, normally inaccessible portions of the systems should be inspected.

   Assess the overall conditions observed during the walkdown to identify any problems that could have an impact on system performance or adversely affect safety. Remember that a single problem may not make a system inoperable, but multiple problems may interrelate and render the system inoperable or only marginally safe. In any case, determine whether the licensee has identified any problems and taken appropriate actions. If the inspector observes a significant number of deficiencies threatening safety, and of which the licensee is unaware, or if the licensee is found to be remiss in correcting non-trivial problems, take action to increase the licensee's awareness in this area, to prevent recurrences and to foster timely corrective actions. Additionally, determine if any maintenance request tags attached to equipment are outdated, or if items obviously in need of maintenance (i.e., valve packing leaks, corroded electrical terminals) are safe for continued operation, and if so, have been entered into the licensee's maintenance request systems. Observations that pose an imminent threat to safety should be immediately reported to the operators and line management.

2. Consult the operator logs to compare any safety-significant process parameter instrumentation readings with those observed during the walkdown. Request the licensee to explain any discrepancies or abnormal readings.

3. Additional guidance on freeze protection surveillance is found in IP 71714, "Cold Weather Preparations."

4. Refer to the licensee's procedures or policies that deal with limits on the types and amounts of combustibles and ignition sources that are allowed in various plant locations.

b. Inspectors may review a sample of the deficiency reports based on their safety or safeguards risk significance and use information available from other sources in selecting the sample. Inspectors may verify that deficiencies known to the inspector through other inspection activities are properly included in licensee's problem identification system. Inspection of the deficiency reports should be performed on a continual basis, as the licensee identifies and resolves plant problems.

Ø4.Ø3 Quarterly Inspections

a. The inspector should verify that the licensee conspicuously posts copies of NRC Form-3, "Notice to Employees," in sufficient quantities and locations to permit workers engaged in licensed activities to observe them on the way to or from any activity location to which the document is applicable.

Also, inspectors should verify that any Notices of Violation involving radiological working conditions, proposed impositions of civil penalties, or NRC orders are posted by the licensee within two working days of its receipt from NRC. Licensee responses should be posted within two working days of their dispatch. These documents are required to remain posted at least five days or until corrective action for the violation is complete, whichever is later.

b. In reviewing RWPs, determine:

1. Whether the Radiation Work Permits (RWPs) contain information required by the licensee's procedures, relating to the performance of work in a safe manner and under appropriately controlled conditions. Consider the following elements:

(a) job description
(b) radiation levels
(c) concentrations of airborne radioactivity - actual or anticipated
(d) contamination levels
(e) respiratory protective equipment
(f) protective clothing and equipment
(g) dosimetry
(h) special tools and equipment
(i) special instructions
(j) expiration
(k) health physics coverage
(l) signatures

2. Whether RWPs show current levels of general area airborne radioactivity concentrations, radiation levels, fixed and loose contamination.

3. Whether RWPs are prominently posted or otherwise readily available for employees' review and observation.

c. The intent is to ensure, on a continuing basis, that NRC is cognizant of the licensee's third-party efforts initiated to address and resolve significant safety issues identified by the licensee or NRC. The resident inspector should keep regional management informed of such licensee initiatives. Be sensitive to the fact that NRC efforts to improve the staff's awareness of these audits could stifle or prevent critical self-evaluations of this type. However, licensees are still responsible for all applicable reporting requirements should an internal investigation discover a reportable condition or event.

d. The fire protection system should be walked down to ensure that all major sections are reviewed yearly. Emphasis should be placed on those areas presenting the greatest risk to maintaining control of nuclear material due to fire or explosion within the facility, and the greatest risks of offsite releases due to fire or explosion.

e. Action points for investigation and corrective action are specified in the license.

04.04 Annual Inspections

a-b. Participate as an observer for drill review if a regional inspector reviews the drill performance. If not, observe key portions of the drill, including command and control, and communications.

2600/XXX-05 REPORTING REQUIREMENTS

Inspections conducted under this TI will be reported periodically every six weeks. Reports should be submitted to the regional branch chief responsible for fuel cycle inspections.

2600/XXX-06 COMPLETION SCHEDULE

Periodic inspections under this TI will continue indefinitely, until deployment of a revised fuel cycle facility oversight program.

2600/XXX-07 EXPIRATION

This TI will remain in force for a period of 24 months, or until specifically replaced by alternative procedures as part of the deployment of a revised fuel cycle facility oversight program.

2600/XXX-08 CONTACT

Questions about the technical aspects of this TI should be addressed to Lance Lessler, Safety and Safeguards Support Branch, at (301) 415-8144.

2600/XXX-9 ORIGINATING ORGANIZATION INFORMATION

9.01 Organizational Responsibility.

The Safety and Safeguards Support Branch (SSSB/FCSS/NMSS) initiated this TI.

9.Ø2 Resource Estimate.

Inspection performed using this TI is estimated to require 9Ø hours of resident inspector resources per month. This estimate is only for the direct inspection effort and does not include preparation for, and documentation of, the inspection.

9.Ø3 Training.

No specific training is required for this TI, beyond what is already required for qualification of Fuel Cycle Facility Resident Inspectors.

2600/XXX-11 REFERENCES

Facility license application

SER

Other licensing correspondence, such as information provided to NMSS before restart of mothballed or start of new systems

License

Branch Technical Position (BTP) on Requirements for Operations for Fuel Cycle Facilities

RG 3.3 "Quality Assurance Program for Fuel Reprocessing Plants and for Plutonium Processing and Fuel Facilities Plants," Revision 1, March 1974.

RG 3.1 "Use of Borosilicate - Glass Raschig Rings as a Neutron Absorber in Solutions of Fissile Material," January 1983.

RG 3.4 "Nuclear Criticality Safety in Operations with Fissionable Materials Outside Nuclear Reactors," February 1978.

RG 3.41 "Validation of Calculational Methods for Nuclear Criticality Safety," Rev. 1, May 1977 (ANSI N16.9-1975).

RG 3.43 "Nuclear Criticality Safety in the Storage of Fissile Materials," Rev. 1, April 1979.

RG 3.45 "Nuclear Criticality Safety for Pipe Intersections Containing Aqueous Solutions of Enriched Uranyl Nitrate," November 198Ø.

RG 3.12 "General Design Guide for Ventilation Systems of Plutonium Processing and Fuel Fabrication Plants," August 1973.

RG 8.12 "Criticality Accident Alarm Systems."

RG 8.13 "Instruction Concerning Prenatal Radiation Exposure."

RG 8.15 "Acceptable Programs for Respiratory Protection."

RG 8.25 "Calibration and Error Limits of Air Sampling Instruments for Total Volume of Air Sampled."

RG 8.29 "Instruction Concerning Risks from Occupational Radiation Exposure."

END