ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Inspection Report: 50-361/95-18
50-362/95-18

Licenses: NPF-10
NPF-15

Licensee: Southern California Edison Co.
P.O. Box 128
San Clemente, California

Facility Name: San Onofre Nuclear Generating Station, Units 2 and 3

Inspection At: San Clemente, California

Inspection Conducted: August 21-25, 1995

Inspectors: Thomas H. Andrews Jr, Radiation Specialist
Facility Inspection Programs Branch

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Facility Inspection Programs Branch

Approved: Blaine Murray 9/13/95
Blaine Murray, Chief Date
Facilities Inspection Programs Branch

Inspection Summary

Areas Inspected (Units 2 and 3): Routine, announced inspection of the radiation protection programs with a particular emphasis on activities associated with the Unit 3 refueling outage.

Results (Units 2 and 3):

- Personnel performing quality assurance surveillances and observations were well qualified and familiar with plant operations. An effective program had been implemented to track and trend the results of surveillances and observations (Section 2.1).

- The radiation protection department provided adequate staff, equipment, and protective clothing to support work activities during the outage. The outage planning processes were a strong contributor to reducing collective dose (Section 2.2).

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- The training department health physics instructor's knowledge and experience level were program strengths. A good training and qualification program was in place for contractor health physics technicians (Section 2.3).
- High radiation areas were properly posted, and access controls were in place. Dosimetry placement was proper for radiological work performed. Some radiation exposure permit radiological briefings did not fully address all the radiological conditions a worker may encounter. Radiological postings were properly maintained. Housekeeping conditions inside containment needed improvement (Section 2.4).
- Internal exposure controls were effectively maintained and implemented during refueling outage operations (Section 2.5).
- The air sampling program was appropriate for the early part of the outage, but degraded as the outage progressed. The radiation instrument program was effectively maintained. Contamination controls were properly maintained during outage activities (Section 2.6).
- The as low as is reasonably achievable (ALARA) program included aggressive involvement by management, substantial contributions by station personnel, and a teamwork attitude among organizations to reduce radiation exposures (Section 2.7).
- The followup activities associated with a contaminated water spill were aggressive and comprehensive. The release was contained on site. Recovery efforts were in progress at the time of the inspection and appeared to be well planned (Section 2.8).

Summary of Inspection Findings:

- Inspector Followup Item 361/9407-01 was closed.
- Inspector Followup Item 361/9407-02 was closed.
- Inspector Followup Item 361/9511-02; 362/9511-02 was closed.

Attachment:

- Attachment - Persons Contacted and Exit Meeting

DETAILS

1 PLANT STATUS

Unit 2 operated at full power during the entire inspection period, and Unit 3 was shut down for a refueling outage. At the beginning of the inspection, the Unit 3 reactor was defueled with all fuel offloaded into the spent fuel pool. During the inspection period, the licensee began reloading fuel assemblies into the Unit 3 reactor vessel.

2 OCCUPATIONAL EXPOSURE DURING EXTENDED OUTAGES (83729, 83750)

2.1 Audits and Appraisals

The inspectors reviewed surveillances and outage observations performed by the Quality Assurance organization.

The licensee had implemented a software tracking system to keep track of comments generated during the observation process. Comments were classified as being either positive or negative. The tracking system allowed the licensee to trend the comments and set action levels on negative comments. This program provided management with an insight into practices or trends that were not in accordance with management's expectations and was used to give additional attention to identified problem areas.

Quality assurance coverage of outage activities was accomplished by using personnel on two, 10-hour shifts daily. The four primary quality assurance personnel performing the observations were exceptionally qualified. In addition to being certified by the National Registry of Radiation Protection Technologist, they had previously been either health physics supervisors or foremen at San Onofre. The inspectors conducted plant tours with quality assurance personnel which revealed that they had a good working relationship with health physics personnel and readily identified poor work practices as well as good work practices.

Conclusions

The licensee's method of tracking observation comments was a useful tool for management. Personnel performing quality assurance surveillances and observations were highly qualified and familiar with the plant.

2.2 Planning and Preparation

The inspectors discussed planning and preparation activities with representatives in the radiation protection, maintenance, operations, outage, and training departments to review planning and preparation for the refueling outage. Based on these discussions, the inspectors determined that the radiation protection department provided adequate staff, equipment, and protective clothing to support outage work activities.

The permanent radiation protection staff was supplemented with 72 senior health physics contract technicians and 5 radioactive material controllers.

During the refueling outage, health physics support functions were staffed for continuous outage support. The outage health physics organization was properly staffed to support the outage workload.

A large percentage of the contractor health physics technicians had worked in the 1995 Unit 2 refueling outage, thus the amount of training required to prepare them for working in the plant was substantially reduced.

The maintenance manager stated that a new work package process was developed to take advantage of dose saving techniques. The licensee provided the inspectors with a listing of several such jobs. Additional mock-up training was provided for many jobs such as those related to the reactor coolant pump modifications/maintenance. This allowed for improved work methods to be developed in a non-radiation environment. The inspectors noted that these improved work methods were incorporated into the work package. The inspectors considered the planning processes to be a strong contributor to reducing dose.

Conclusions

The radiation protection department provided adequate staff, equipment, and protective clothing to support work activities during the outage. The planning processes used were considered to be a strong contributor to reducing dose during the outage.

2.3 Training and Qualifications of New Personnel

The inspectors reviewed the training and qualifications for contract radiation protection technicians brought on site to support outage activities. The inspectors interviewed both plant health physics personnel assigned to review contractor resumes and training department health physics instructors. The inspectors also reviewed contractor health physics training lessons plans, resumes, and station procedures to determine whether contract health physics personnel were appropriately qualified to perform their assigned responsibilities.

The training department health physics instructors were experienced and well qualified to perform their training function. From interviews held with the training staff, the inspectors determined that the staff had many years of health physics practical and operational field experience and that the staff routinely provided radiation protection supervisory weekend and off hours outage support.

Training lesson plans were reviewed to evaluate the content of the training material. The inspectors determined that the training lesson plans were well organized and documented and included highlighted changes to the program, as well as, the appropriate station procedures for reference material.

The inspectors noted that the training lesson plans did not include radiation protection lessons learned from both the industry and from on-site incidents. The licensee provided the inspectors with information showing that lessons learned from on-site incidents were discussed by the plant staff with contractor senior health physics personnel prior to the beginning of this outage, although this was not formalized in their training program. The inspectors considered the lack of formalized industry and site lessons learned to be a weakness in the training program. The licensee stated that they planned to evaluate the need to include lessons learned in the training program description.

The inspectors determined that station technical specifications required, at a minimum, an American National Standards Institute/American Nuclear Society (ANSI/ANS) 18.1 health physics technician (2-year experienced technician), yet the purchase order agreement with the contractor vendor supplying the outage health physics support personnel required, at a minimum, an ANSI/ANS 3.1 health physics technician (3-year experienced technician). Because the criteria of ANSI/ANS 3.1 are more comprehensive than ANSI/ANS 18.1, the inspectors considered this to be a program strength.

The inspectors reviewed several contractor senior health physics technicians resumes. All resumes reviewed met and/or exceeded the requirements of ANSI/ANS 3.1. The inspectors noted that approximately 75 percent of the contractor senior health physics technicians on site for the Unit 3 refueling outage had previously worked at San Onofre.

The inspectors noted that a large percentage of the licensee's radiation protection staff was either Certified Health Physicists or National Registry of Radiation Protection Technologists certified. This was considered to be a program strength.

Conclusions

The health physics training department staff's knowledge and experience level were program strengths. A good training and qualification program was in place for contractor health physics technicians.

2.4 External Exposure Control

The inspectors reviewed the external exposure control program which included: personnel dosimetry program, posting and labeling, radiation work practices, supervisory oversight of radiological work activities access control, and control of high radiation areas. The inspectors conducted several tours of the radiological control area (RCA), including the Unit 3 reactor containment building to observe work in progress during the outage. Additionally, the inspectors conducted several independent radiation surveys within the RCA and protected areas to verify that these areas had been properly surveyed, posted, and controlled.

2.4.1 High Radiation Area and Dosimetry Controls:

Access control to high radiation area greater than 1000 millirem per hour was appropriate. All barricades, postings, and flashing lights were found in place and operational.

The inspectors verified that individuals entering the RCA wore the required personnel monitoring devices. Electronic dosimetry was properly worn by all workers observed in the RCA. The inspectors reviewed dosimetry placement for two steam generator tasks (primary and secondary work) and found multiple dosimetry placement appropriate for the varying dose gradients the workers had entered.

2.4.2 Access Controls

The inspectors reviewed the access control requirements, including the radiation exposure permit system that serves as the radiation work permit system. The inspectors noted in the "conditions" section of the radiation exposure permit that the radiological survey conditions were stated in general terms and normally did not include specific work area radiological conditions.

This observation was discussed with the licensee to ensure the licensee was in compliance with the requirements of 10 CFR 19.12. This regulation requires the licensee to inform the workers of the radiological conditions in which they are working. The licensee explained that the workers are required to check in with the health physics technician at the entrance to the RCA, and they would be briefed on the actual radiological conditions in their work area or be directed to a satellite health physics station for work area radiological conditions prior to beginning a task.

The inspectors observed several briefings at the control point entrance to the RCA. The inspectors noted that most workers checking in at the control point were to perform work inside the Unit 3 containment. These workers were directed to check in with the satellite control point at the entrance to containment.

The inspectors observed a briefing of two workers by the control point health physics technician at the entrance to the RCA, who were working on an electrical box located in the hallway on the 37-foot elevation of the radwaste building. The inspectors noted that the briefing consisted of the approximate dose rates in the area, but no discussion pertaining to radiological contamination or airborne levels. The inspectors questioned the control point health physics technician pertaining to the need to inform the workers about the airborne and contamination conditions. The control point health physics technician explained that "the hallway was clean (not contaminated) and there was no bad air" (no airborne radiological conditions existed). The inspectors verified these conditions as being correct.

During a tour of the Unit 3 containment building, the inspectors received a briefing from both the satellite access point at the containment entrance and the satellite access point inside containment which controls entry inside the bioshield wall. The briefings received only consisted of the radiation dose levels the inspectors were to enter. These events were discussed with the licensee. The licensee stated that airborne conditions are not normally discussed during a briefing if no airborne conditions exist, acknowledged that if working in a contaminated area, contamination levels should be discussed.

For the radiation exposure permit system to be in compliance with 10 CFR 19.12, the workers are required to understand all the radiological conditions in which they are working. The control point briefing was a key point to this understanding. Based on the inspectors' observations, the licensee performed an assessment of the control point briefings. During entries into containment following this discussion with the licensee, the inspectors were briefed on all the radiological conditions.

2.4.3 Postings

Independent radiation area surveys were performed, and postings were reviewed by the inspectors. Most areas were found to be appropriately surveyed, controlled, and posted in accordance with station procedures and regulatory requirements. The inspectors noted some room for improvement concerning some radiological signs.

During the tours of the Unit 3 containment building, the inspectors noted few radiological informational postings in place to aid workers in identifying areas of higher dose, such as the area near the pressurizer spray line. This line was partially shielded to approximately chest height. Near the shielded areas of the pipe, dose rates were approximately 40-50 millirem per hour. However, above the shielded region, dose rates in this area exceeded general area dose rates by approximately 70-90 millirem per hour. Without informational posting, the shielding could give the false impression to workers that doses were lower in the area. This observation was discussed with radiation protection management. During subsequent tours of Unit 3 containment, the inspectors observed improved informational posting techniques.

2.4.4 Housekeeping

The inspectors observed poor housekeeping inside the containment building. Numerous items such as: balls of tape, flashlights, tools, empty plastic bags, electrical tie wraps, as well as, coils of cable were not removed or placed in staged work areas.

The inspectors discussed their observations with radiation protection supervision. The licensee's outage manager addressed the housekeeping issue at the daily outage status meeting the following morning and directed each manager in attendance to reenforce housekeeping standards with their personnel.

During subsequent tours of the RCA, the inspectors noted that housekeeping had improved. However, the basic housekeeping issue was not fully addressed since the problem still existed. This was discussed further with the licensee. The licensee agreed that housekeeping was still below their expectations and were working on improving the situation.

2.4.5 Conclusions

High radiation areas were properly posted, and access controls were in place. Dosimetry placement was proper for radiological work performed. Some radiation exposure permit radiological briefings did not fully address all the radiological conditions a worker may encounter. Radiological postings were in accordance with regulatory requirements. Few radiological informational signs were used inside containment. Housekeeping conditions inside containment needed improvement.

2.5 Internal Exposure Control

At the time of this inspection, the licensee had not identified any elevated whole-body counts as a result of outage related work. No full-faced negative pressure respirators had been issued for outage radiological protection purposes. The licensee had issued a large number (approximately 356) of air supplied bubble hoods. The large percentage of these hoods were used for pressurizer work and the cutting of radioactive heaters. The inspectors were unable to determine if the use of these hoods had a negative effect on ALARA.

During tours of the RCAs, the inspectors observed air sampling equipment and air filtration units in the work place where appropriate. The inspectors observed that all air sampling equipment examined in the work place had current calibration dates and had documented operational checks. Air filtration units were placed in some areas to provide better breathing air in potentially high contaminated areas.

Conclusions

Internal exposure controls were effectively maintained and implemented during refueling outage operations.

2.6 Control of Radioactive Materials and Contamination, Surveys, and Monitoring

Areas reviewed by the inspectors included: adequacy of the surveys necessary to assess personnel exposure; proper use of portal monitors and friskers; supply, maintenance, calibration, and performance testing of portable radiation detection instrumentation; and the control of contaminated areas.

2.6.1 Airborne Radiological Surveys

During a tour of the RCA, the inspectors noted that an air sample located in the radwaste building had been running continuously for greater than 4 days (approximately 105 hours). The excessive long sample collection time resulted in a significant reduction in the reliability of the air sample analysis.

The licensee stated that this continuously running air sample was an oversight on the part of operational health physics and should have not been running for such an extended period of time.

The inspectors reviewed air sample data from Unit 3 containment. The inspectors determined that at the beginning (for the first 15 days) of the outage, area air samples were taken in the appropriate time frame to properly determine the airborne concentration within various areas of containment. The inspectors noted that a large number of jobs required breathing zone or lapel air samplers and determined that job specific air samples were performed properly.

During the inspection, the inspectors reviewed the general area air sampling program in operation inside the containment building. The inspectors interviewed health physics operational supervision and made field observations which determined that general area air samples ran continuously for approximately 24 hours and some job specific air samples ran continuously for about 12 hours. These samples were taken using a low volume air sampler. The inspectors noted that a number of the jobs performed during this inspection did not require lapel or breathing zone air samples. The licensee stated that most tasks performed later in the outage were jobs which involved areas of the plant of known airborne levels and systems that already have been breached and, therefore, presented little chance of becoming an airborne hazard. The licensee also noted that no positive whole-body counts had been identified which indicated that inhalation of radioactive material was not a problem.

The radiation protection manager stated that his expectations for determining radioactive airborne concentration in an area when using a low volume air sampler was that the air sampler should run no more than about 4 hours of continuous operation. The inspectors noted that this was in agreement with industry practice.

The inspectors also noted that the licensee did not have continuous air monitors running in containment during the refueling outage. An advantage of using a continuous air monitor was that it would give an alarm if a preset limit for airborne concentration of radioactive material was exceeded. Used in conjunction with air sampling, characterization of the airborne activity in a given area would be easier to ascertain.

The inspectors determined that 12 and 24-hour continuous running air samples used to establish airborne concentration levels in an area, in conjunction with no continuous air monitors, was a weakness in the licensee's survey program. This was discussed with the radiation protection manager and operational health physics supervisor. The inspectors pointed out that the use of the whole-body counter and whole-body friskers was considered to be a type of "after the fact survey." The licensee stated that they plan to reevaluate their air sampling program.

The inspectors reviewed the process of initiating a radiation exposure permit. When asked if job specific surveys were performed for each job requested, the licensee stated that if an area or component had been surveyed, and it was believed that radiological conditions in that area had not changed, a new survey would not be performed. According to the licensee, the general area air sample data would be used to establish most radiation exposure permit controls.

2.6.2 Instrument Program

The inspectors reviewed the station's radiological survey instrumentation program, including portal monitors and friskers. The inspectors determined that the licensee maintained an adequate supply of calibrated survey instruments for outage support. All instrumentation observed was performance checked according to station procedures and industry standards. The inspectors determined that the instrument calibration program was in agreement with industry standards, and maintenance history files were properly maintained. The inspectors noted that the licensee's instrument staff was knowledgeable and experienced in the repair and calibration of radiation protection instrumentation.

2.6.3 Contamination Control

The licensee provided good controls to prevent the spread of radioactive contamination. Contaminated areas were posted and marked with tape or rope. Step-off pads were placed at the entries/exits to these areas to alert workers to a change from a contaminated area to a non-contaminated area. After leaving a contaminated area and removing potentially contaminated protective clothing, calibrated and performance checked radiological frisking instruments were provided to workers for checking their hands and feet for contamination. Receptacles provided for the collection of potentially contaminated protective clothing were periodically emptied, and the undressing areas were neatly kept to prevent inadvertent spread of contamination.

2.6.4 Conclusions

The outage air sampling program was appropriate for the early part of the outage, but degraded as the outage progressed. The radiation instrument program was effectively maintained. Contamination controls were properly maintained during outage activities.

2.7 <u>Maintaining Occupational Exposure ALARA</u>

The inspectors reviewed the ALARA program to ensure that radiation dose was being maintained ALARA. For the Unit 3 outage, the goal of 270 person-rem appeared to be achievable, provided emergent work was limited. At the time of the inspection, cumulative outage exposure was approximately 200 person rem.

A review of ALARA meeting minutes indicated active participation by most organizations. This was primarily attributed to the aggressive management oversight. The inspectors noted that the Vice President, Nuclear Generation, was the ALARA committee chairman.

A notable positive affect on the ALARA perspective by plant personnel was the maintenance manager who was previously assigned to the health physics department and thus familiar with the resources available to help reduce dose. By taking advantage of these resources, working relationships between the maintenance and health physics organizations improved and resulted in several initiatives to reduce dose during the outage.

As discussed in Section 2.2 of this report, there was an increased use of mock-ups in the training facility to improve work processes, thereby reducing dose. A dedicated person from the maintenance department helped develop and teach training modules for high dose type tasks that compliments ALARA goals. Involvement of health physics technicians created a teamwork environment that allowed injection of suggestions from a different perspective. By jointly training all the machinists and foremen, the licensee established a "common language" for these tasks that helped to ensure that directions were understood. This minimized the confusion and time while actually performing these jobs.

As a result of employee involvement in the ALARA process, the licensee designed and built a tool to machine the shoulder on the reactor coolant pump shaft where the baffle was attached. The licensee estimated that the use of this tool reduced the time spent in the pump shroud area to around one 1/10 of the projected time for the completion of the job.

As in previous outages, the steam generator radiation control point was established inside the containment building. During this outage, the steam generator work crew communication equipment, monitors set up to view steam generator work, and radiation protection personnel operating this equipment were moved from the 30-foot elevation of containment (general radiation dose rates 2-5 millirem per hour) to the 45-foot elevation of containment (general radiation dose rates of less than 1 millirem per hour). The licensee estimated a station dose savings of approximately 3.5 person rem by relocating this control point.

The licensee pursued source term reduction techniques to further reduce radiation exposure. One of the more notable efforts reflected teamwork between the chemistry department and the health physics department. Based on a review of shutdown chemistry data, the licensee determined that the primary isotope removed was cobalt-58. As a result, the licensee undertook an aggressive process to remove nickel from the reactor coolant system water prior to plant startup. During this process, they removed approximately 6 pounds of unactivated nickel. Because nickel converts to cobalt-58 when activated in the core, this reduced the inventory of material that would subsequently be activated and produce dose in the plant.

Conclusions

The licensee's ALARA program reflected aggressive involvement by management, benefited from substantial contributions by station personnel, and encouraged a teamwork attitude between organizations to reduce radiation exposures.

2.8 Contaminated Water Spill

On August 17, 1995, the licensee had connected a hydro pump that was located in the protected area outside of containment and outside of the RCA to a shutdown cooling valve inside of containment to perform testing on the valve. The supply water for the hydro pump was the nuclear service water system that is a "clean/nonradioactively contaminated" system.

The pump discharge was to a direct supply line to the valve. There was a "pressure control" line tapped off this line where water was being diverted to the yard drain system. With the pump running, closing down on a valve on the pressure control line would increase the pressure on the direct supply line. With the valve partially open, water was flowing out of this line to the yard drain located near the pump. As long as the pump was running, the water being released to the yard drains was nuclear service water system water.

During the testing, the hydro pump automatically shut off. Because the nuclear service water system is a pressurized system, water continued to flow through the pressure control line to the yard drain. However, because the system was attached to the shutdown cooling system, which is a contaminated system, contaminated water flowed back down the direct supply line from the shutdown cooling system to the pressure control line and was released to the yard drains. At some point, one of the individuals involved moved the discharge hose from the pressure control line from the yard drain to a deluge pit adjacent to the pump area.

Later on the morning of August 17, one of the individuals that was working in the area of the hydro pump attempted to exit the protected area and caused the portal monitor to alarm at the security access point. The licensee soon discovered that they had experienced an unmonitored release of radioactive material to the yard drain and deluge pit area. The area was quickly decontaminated with the exception of the deluge pit and the yard drains.

Water samples from the discharge hose contained activity in the range of 1×10^{-3} microcuries per milliliter. This indicated that there was a potential release in excess of 10 CFR Part 20, Appendix B, limits via an unmonitored release path and was not approved by the Offsite Dose Calculation Manual.

The deluge pit was a "french drain" design. The pit was a concrete lined pit that was approximately 8-feet deep. The top 1-2 feet is gravel with the remaining 6-7 feet being sand. The licensee covered the deluge pit with plastic to prevent any additional water flowing into the pit.

The licensee sampled the yard drain system to determine the distance the contamination traveled. Based on the survey results, the licensee concluded that the contamination did not reach the discharge point at the intake structure. The licensee installed plugs in the yard drain system to prevent water from flowing through the drains and flushing the material downstream to the discharge point.

Following these actions, the licensee developed a recovery plan. The plan involved removal of sand and debris from the yard drain, monitoring the material to determine how much of it was contaminated, and flushing the yard drain to remove the contaminated water. The water from the flushing process would be diverted to a holding tank where it could be sampled and released through a monitored flow path approved by the Offsite Dose Calculation Manual.

The plans for remediating the deluge pit involved removing the contaminated gravel and removing sand until no contamination was detected. If the material progressed beyond the depth of the french drain, the licensee indicated that they would continue digging and removing material until the contamination was removed.

Licensee's management was notified of the event within a reasonable amount of time of discovery. An investigation team and a recovery team were appointed. While the investigation was still in progress at the time of the inspection, the inspectors were satisfied that the licensee was being very aggressive at trying to identify root causes.

Immediate corrective actions taken by the licensee included the identification of any systems where a "clean" system was connected or could be cross-connected to a "contaminated" system from outside the RCA. Examples included looking for other hydrostatic testing operations as well as flushing operations. For any of these identified, the licensee indicated that additional controls would be put in place to ensure that the likelihood of repeating this event would be minimized.

Conclusions

The licensee's followup activities associated with the contaminated water spill to the yard drains were aggressive and comprehensive. The release was contained on site. Recovery efforts were in progress at the time of the inspection and appeared to be well planned.

3 FOLLOWUP - PLANT SUPPORT (92904)

3.1 (Closed) Inspector Followup Item 361/9407-01 - Purge Dam Usage for Hot Particle Control Barrier and Modification of Radiation Exposure Permits With Work in Progress

In NRC Inspection Report 50-361/94-07, the inspectors raised three concerns regarding the adequacy of a foreign material exclusion cover as a contamination barrier, adequacy of hot particle zone posting requirements, and confusion caused by revising the radiation exposure permit while work was in progress. The licensee addressed these concerns by making modifications to procedures.

Procedure SO123-VII-20.11.1, "Radiological Posting," was revised to address the foreign material exclusion cover issues. The revision included addition of steps to ensure that the cover was sufficient to serve as a contamination barrier, to ensure that the cover was not easily dislodged, and a minimum posting requirement if the cover served as a contamination barrier.

Procedure SO123-VII-20.10, "Radiological Work Planning," and Procedure SO123-VII-20, "Health Physics Program Description," contained steps that permit work to continue in the field if the radiation work permit was revised. These steps provided for an updated briefing of individuals involved in the jobs affected and documentation of this process.

After review of these procedures and discussion with licensee personnel, the inspector determined that the licensee response was adequate.

3.2 (Closed) Inspector Followup Item 361/9407-02 - Feedback Mechanism for Radiological Occurrence Reports

In NRC Inspection Report 361/94-07, inspectors identified that the Radiological Occurrence Reporting System did not provide a feedback mechanism to the originator of a report regarding the status of the report. This was especially important in situations where a report was generated and, after review, was determined to below the threshold for review.

The licensee revised the associated procedure for the generation and processing of radiological occurrence reports. The new procedure had guidance where the individual's supervisor was informed frequently regarding the status of a report. If the conditions were to arise where the report was subsequently canceled, because the incident did not meet the threshold criteria, the supervisor would be responsible for informing the individual to ensure that the system was being properly used.

After review of these revisions, the inspectors determined that the licensee had improved the program to properly address this concern.

3.3 (Closed) Inspector Followup Item 361/9511-02, 362/9511-02 - Modifications to the Radiological Occurrence Reporting System

In NRC Inspection Report 361/95-11 and 362/95-11, the effectiveness of the Radiological Occurrence Reporting System was questioned. The system did not provide any guidance for screening incidents for potential management involvement and for trending incidents for potential negative trends. The system was primarily a means of documenting coaching or counselling activities and did not routinely involve informing management.

The licensee revised the program to add a screening matrix for events. Events that met a certain severity level would require management notification. For more severe incidents, the revised procedure required senior management to be notified of the occurrence.

The licensee initiated a trending process for the Radiological Occurrence Reports. They entered historical data for a number of months prior to the program being initiated to see if there were any other negative performance trends indicated. No other negative trends were identified. The information was reviewed on a regular basis, and the trending results were available to management upon demand.

Based upon the improvements made by the licensee and the demonstration of the operation of the system, the inspectors determined that the licensee's response to this issue was acceptable.

ATTACHMENT

1 PERSONS CONTACTED

1.1 Licensee Personnel

*R. Kreiger, Vice President, Nuclear Generation
*T. Adler, Supervisor, Health Physics
*J. Clark, Manager, Chemistry
*J. Feo, Manager, Maintenance
*T. Frey, Compliance Engineer Aid
*R. Giroux, Compliance Engineer
*D. Herbst, Quality Assurance Manager
*P. Knapp, Manager, Health Physics
*J. Madigan, Supervisor, Health Physics Operations
*W. Marsh, Manager, Nuclear Regulatory Affairs
*G. Plumlee, Supervisor, Regulatory Compliance
*R. Schofield, Health Physics Engineer
*J. Scott, Supervisor, Health Physics
*K. Slagle, Oversite Management
*C. Spoonemore, Administrator Training
*R. Warnock, Health Physicist
*C. Williams, Supervisor, Compliance
*H. Wood, Quality Assurance Engineer

1.2 NRC Personnel

J. Russell, Resident Inspector
*B. Murray, Branch Chief

*Denotes personnel that attended the exit meeting. In addition to the personnel listed, the inspector contacted other personnel during this inspection period.

2 EXIT MEETING

An exit meeting was conducted on August 25, 1995. During this meeting, the inspector reviewed the scope and findings of the report. The licensee did not express a position on the inspection findings documented in this report. The licensee did not identify as proprietary, any information provided to, or reviewed by the inspector.