U. S. NUCLEAR REGULATORY COMMISSION
REGION I

Report Nos. 50-352/94-07
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Docket Nos. 50-352
50-353

License Nos. NPR-39
NPR-85

Licensee: Philadelphia Electric Company
Correspondence Control Desk
P.O. Box 195
Wayne, PA 19087-0195

Facility Name: Limerick Nuclear Generating Station, Units 1 and 2

Inspection At: Limerick, Pennsylvania

Inspection Conducted: February 15-18, 1994

Inspector: for R. L. Nimitz, CHP, Senior Radiation Specialist — 4/5/94 date

Approved by: R. Bores, Chief, Facilities Radiation Protection Section — 4/05/94 date

Areas Inspected: Areas reviewed included previous findings, program changes and enhancements, organization and staffing, training and qualifications, efforts to maintain radiation exposures as low as is reasonably achievable (ALARA), external and internal exposure controls, radioactive material and contamination controls, an unauthorized entry into an area posted as a High Radiation Area, and station conditions. The implementation of the revised 10 CFR Part 20 (effective January 1, 1994) was also selectively reviewed. The inspection principally focused on the adequacy and implementation of radiological controls for the Unit 1 refueling outage. However, activities at Unit 2 were also reviewed.

Results: Station efforts to maintain occupational exposure ALARA were generally very good, as were overall controls for radioactive material and contamination. Radiological controls for the Unit 1 outage were generally good. Appropriately trained and qualified personnel were overseeing outage radiological control activities. Supervisory oversight of radiological work activities was generally good. An unresolved item, associated with monitoring of maximum

occupational exposure of personnel working in radiation dose rate gradients, was identified. One apparent violation of the access control program to High Radiation Areas was identified. Specifically, one individual crossed a barricade, clearly posted as a "High Radiation Area, RWP required for entry", and entered and worked in the demarcated area for about four hours without the required RWP. (Details Section 10.0.)

DETAILS

1.0 Individuals Contacted During Inspection

1.1 Licensee Personnel

* R. Boyce, Plant Manager
M. Christinziano, Nuclear Engineering Branch Manager
* D. Helwig, Vice-President, Limerick Generating Station
* G. Murphy, Manager, Radiation Protection
D. Neff, Regulatory Engineer
J. Risteter, Manager Radiological Engineering
M. Roache, Manager, Common Programs
G. Robinson, Senior Instructor, Common Programs
R. Scott, Project Manger
* G. Stewart, Engineer-Experience Assessment

* Denotes those individuals attending the exit meeting on February 18, 1994.

The inspector also contacted other licensee individuals during the course of this inspection.

1.2 NRC Personnel

* N. Perry, NRC Senior Resident Inspector
T. Easlick, NRC Resident Inspector

* Denotes those individuals attending the exit meeting on February 18, 1993.

2.0 Purpose and Scope of Inspection

This was an announced inspection of the radiological controls program during the Unit 1 refueling outage. Areas reviewed during the inspection were important to health and safety and included the following.

- previous inspection findings
- program changes
- organization and staffing
- training and qualifications
- maintenance of personnel occupational radiation exposure as low as reasonably achievable
- external and internal exposure controls
- radioactive material and contamination controls
- unauthorized entry into an area posted as High Radiation Area (roof of the traversing incore probe storage room)
- plant conditions

3.0. Previous Findings

(Closed) Unresolved Item (50-352/92-26-04)
This item involved performance of a dose evaluation for all appropriate individuals who may have unknowingly entered a beam of radiation in the Unit 1 drywell during a work activity on July 7-9, 1992. The inspector reviewed this matter during NRC Combined Inspection Nos. 50-352/93-23; 50-353/93-23 (conducted September 7-10 and 14, 1993), and during this inspection. The inspector's review indicated that the licensee evaluated all individuals who may have entered the area. The licensee's evaluation identified three additional individuals who potentially sustained additional exposure to be credited to their occupational exposure. The licensee's review did not identify any overexposures. The maximum exposure sustained by any one worker exposed to the beam was about 300 millirem. This item is closed.

4.0 Changes and Enhancements

4.1 Changes

The inspector reviewed changes at the licensee's facility, in the area of radiological controls, since the previous inspection. Areas reviewed were:

- organization and staffing
- procedures and programs
- facilities and equipment.

The inspector noted that the licensee implemented a major change in station procedures and programs since the previous inspection. Specifically, the licensee implemented the revised 10 CFR Part 20, effective January 1, 1994. The inspector's preliminary reviews of the programmatic changes, and their implementation, indicated that the changes were appropriate and implemented. Specific findings regarding the changes are discussed in this report.

No safety concerns or violations were identified.

4.2 Enhancements

The inspector reviewed the licensee's continuing efforts to enhance the radiological controls program. The following observations were made.

- The licensee initiated a number of new enhancements to the radiological controls program for refueling floor activities as follows. These enhancements affect a number of radiological controls program areas.

- Audio and visual systems were established to enhance communications between personnel.

- An extensive Lexan barrier was placed around the refueling cavity and spent fuel storage pools to minimize the potential for cross-contamination and improve visibility of activities.

- Standardized protective clothing dress-out guidelines were established.

- Essentially all disposable protective clothing was eliminated.

- The licensee continues to monitor personnel adherence to the radiation work permit program.

- The licensee enhanced the radiological controls technician requalification process to reinforce a higher standard in job coverage performance and provide for consistent job coverage.

No safety concerns or violations were identified.

5.0 Organization and Staffing

The inspector reviewed the organization and staffing of the on-site radiological controls organization. The review was with respect to criteria contained in applicable Technical Specifications and licensee administrative documents.

The inspector evaluated licensee performance in this area by review of applicable documentation, discussions with cognizant individuals, and independent observation of on-going work activities during tours of the facility. The inspector also reviewed the Unit 1 Refueling Outage Organization to evaluate the method of licensee oversight of contracted radiological controls personnel and to evaluate staffing levels.

The inspector's review indicated that the licensee implemented a well defined and staffed Unit 1 outage radiological controls organization. There was generally good supervisory and management oversight of work activities. The inspector noted that the licensee established and provided radiological control point information manuals at radiological controls points. Among other items, the manuals provided organization descriptions, personnel responsibilities, personnel authorities, and limitations. The manuals also contained personnel qualification information which identified which tasks personnel were qualified to perform. The inspector also noted that the manuals contained, where appropriate, lessons learned and descriptions of previously identified concerns or problems associated with selected work areas. The use of the manuals was considered a very good licensee initiative.

No changes that would adversely affect the organization were identified. The licensee indicated that the Manager, Radiation Protection Operations would be leaving his position but a replacement had not yet been selected.

No safety concerns or violations were identified.

6.0 Training and Qualification

The inspector reviewed the training and qualification of radiological controls contractor personnel supporting Unit 1 refueling outage work activities and the training and qualification of radiation workers performing radiological work activities during the outage. The inspector also selectively reviewed continuing training efforts for the radiological controls staff.

In addition, the inspector reviewed the training of all station personnel, as appropriate, on the revised 10 CFR Part 20 (effective January 1, 1994). The inspector reviewed the training of the following station personnel groups in the revised 10 CFR Part 20.

- station visitors
- non-radiological controlled area workers
- radiological controlled area (RCA) workers
- radiation protection technicians
- radiation protection exempt staff (e.g, radiation protection supervisors)

The above reviews were with respect to applicable Technical Specification requirements and 10 CFR 19, Instructions to Workers.

Regarding contractor radiological controls personnel, the inspector reviewed a selection of vendor technician training and qualification documentation and determined that contractor radiological controls personnel, hired to augment the organization during the outage, met or exceeded the minimum training and experience requirements. The individuals selected were providing direct oversight of radiological work activities.

Regarding training of radiation workers, the inspector's review of radiation worker training records indicated selected personnel observed in the radiological controlled area had received appropriate radiation worker training.

Regarding training of personnel on the revised 10 CFR Part 20, the inspector considered overall training and qualification efforts to be very good.

The following matters were brought to the licensee's attention.

The licensee has two populations of female employees within the restricted area (i.e., non-monitored and monitored females). The licensee's training program for monitored personnel (including females) provides instructions regarding the option that females may declare their pregnancy and take the opportunity to reduce their potential radiation exposure. However, the training program for non-monitored personnel (i.e., those not routinely provided a personnel radiation exposure monitoring device within the restricted area (including females)) that enter the restricted area does not provide similar information. The inspector noted that individuals may receive low levels of exposure and not meet criteria for provision of personnel monitoring devices as specified in 10 CFR Part 20. However, non-monitored personnel are not permitted to enter a radiological controlled area.

The inspector noted that Regulatory Guide 8.13, "Instructions Concerning Prenatal Radiation Exposure," indicates, in Section C., Regulatory Position, that instructions on radiation risks should be provided to workers, including supervisors, in accordance with 10 CFR 19.12, before they are allowed to work in a restricted area. In providing instructions on radiation risks, employers should include specific instructions about the risks of radiation exposure to the embryo/fetus. The inspector further noted that 10 CFR 20.1003, Definitions, defines occupational exposure as that dose received by an individual in a restricted area or in the course of employment in which the individual's assigned duties involve exposure to radiation and radioactive materials from licensed and unlicensed sources of radiation, whether in the possession of the licensee or other person.

The licensee's radiation protection personnel indicated that the maximum expected radiation exposure of personnel in the restricted area, outside the radiological controlled area, would not exceed about 10-15 millirem per quarter (when expected occupancy is considered). The licensee indicated that the need to provide non-monitored females with instructions regarding their option to declair their pregnancy would be evaluated. The inspector indicated the licensee's evaluation of this matter would be reviewed during a subsequent inspection.

Regarding continuing training efforts for radiological controls technicians, the inspector noted that the licensee provided very good continuing training of its radiological control technician staff. Specifically, the licensee developed and implemented enhanced practical factors training at its training center using extensive mock-ups.

No safety concerns or violations were identified.

7.0 ALARA Efforts

The inspector reviewed selected aspects of the licensee's ALARA Program. The principal focus of the review was the observation of on-going work activities at Unit 1 to determine if work was performed in a manner to maintain personnel radiation exposures as low as reasonably achievable (ALARA). The review was with respect to general guidance and criteria contained in the following.

- 10 CFR 20.1101, Radiation Protection Program

- 10 CFR Part 20.1702, Use of Other Controls

- Regulatory Guide 8.8, Information Relevant to Ensuring that Occupational Radiation Exposures at Nuclear Power Stations will be As Low As Is Reasonably Achievable

- Regulatory Guide 8.10, Operating Philosophy for Maintaining Occupational Radiation Exposures As Low As Is Reasonably Achievable

The evaluation of the licensee's performance was based on discussions with cognizant personnel, independent inspector observations during tours of the station, observations of on-going work activities (as appropriate), and review of documentation.

The inspector independently reviewed the following work activities from an ALARA and radiological controls perspective.

- on-going refueling activities
- main steam isolation valve work activities
- main steam relief valve work activities
- A and B residual heat removal system heat exchanger replacement
- control rod drive replacement
- reactor feed-pump work activities
- recirculation system examination activities.
- turbine work activities.

Based on the above review, the inspector concluded that the licensee implemented generally effective exposure controls to minimize unnecessary radiological exposure. Exposure goals were reasonable, ALARA controls were implemented, and lessons learned (as appropriate) from previous outages were implemented. The licensee was also sensitive to the need to minimize unnecessary use of respiratory protection equipment which could potentially result in additional external exposure to personnel due to increased work time of personnel using the equipment. The inspector noted that, during the previous refueling outage at Limerick, about 1400 respirators were used. As of the

date of this inspection only 4 respirators were used for limiting potential intake of airborne radioactivity. Among other initiatives, the following were noted.

- Standardized drywell shielding packages were used.

- Drywell Radiation Sources Booklets were produced to familiarize personnel with radiation sources in the drywell.

The following area for improvement was identified.

- The inspector's observations of the communications between radiological controls personnel inside the Unit 1 drywell and personnel outside the drywell identified areas for improvement. Specifically, the inspector observed a lead radiological controls technician outside the drywell attempting to contact, via the page system, a "roving" radiological controls technician who was inside the drywell. The purpose of the contact was to assign the technician to provide radiological oversight of the workers. The inspector's observations indicated the "roving" technician did not respond after an extended period of time. The workers entered the drywell. The inspector later determined that the workers encountered the technician in the drywell. The inspector noted headsets for communications were provided but not used. Although no apparent significant exposure was obtained by the workers and they did not go directly to their work site, enhanced communications could preclude unnecessary exposure of workers attempting to locate radiation protection personnel or waiting for "roving" technicians. In addition, enhanced communication could potentially limit exposure of the "roving" technicians. The licensee indicated this matter would be reviewed.

No safety concerns or violations were identified.

8.0 External and Internal Exposure Controls

The inspector reviewed the implementation and adequacy of radiological controls at Units 1 and 2. The inspector's review principally focused on review of outage work activities at Limerick Unit 1.

The inspector toured the radiologically controlled areas of the plant and reviewed the following elements of the licensee's external and internal exposure control program:

- posting, barricading and access control, as appropriate, to Radiation, High Radiation, and Airborne Radioactivity Areas;
- High Radiation Area access point key control;
- personnel adherence to radiation protection procedures, radiation work permits, and good radiological control practices;
- use of personnel contamination control devices;

- use of dosimetry devices;
- use of respiratory protection equipment;
- adequacy of airborne radioactivity sampling and analysis to plan for and support ongoing work;
- timeliness of analysis of airborne radioactivity samples including supervisory review of sample results;
- installation, use and periodic operability verification of engineering controls to minimize airborne radioactivity;
- records and reports of personnel exposure;
- adequacy of radiological surveys to support pre-planning of work and on-going work;
- adequacy of supply, maintenance, calibration, and performance checks of survey instruments; and
- hot particle controls.

The review was with respect to criteria contained in applicable licensee procedures and the revised 10 CFR Part 20, Standards for Protection Against Radiation.

The evaluation of the licensee's performance was based on discussions with cognizant personnel, independent inspector observations during tours of Units 1 and 2, observations of on-going work activities, and review of documentation.

The inspector reviewed on-going work activities and made radiation surveys, as appropriate, to verify radiological survey information and evaluate the adequacy of radiological controls.

The inspector's review indicated generally very good radiological controls were implemented for the work activities reviewed. There was generally good supervisory oversight of activities. Radiological surveys and controls were appropriate for the tasks reviewed by the inspector. Technicians and workers were knowledgeable of radiological conditions.

The inspector noted that the licensee provided expected radiological conditions for work activities, where appropriate, to inform workers and radiological controls technicians as to the expected radiological conditions to be encountered. Deviations from the expectations were to be immediately brought to the attention of supervisors.

The following unresolved item was identified.

- On February 15, 1994, the inspector observed workers re-installing the "A" main steam isolation valve (MSIV) on the 277' elevation of the Unit 1 drywell. The inspector observed that one worker was sitting facing the MSIV with his back in proximity to recirculation system piping. The inspector measured the radiation dose rate at the worker's back and obtained about 50 millirem/hr. The inspector

also measured the radiation level at the worker's chest (where the personnel radiation monitoring device was positioned) and measured 10 millirem/hr.

The inspector questioned the licensee as to the adequacy of the individual's exposure monitoring, in that the dosimeter was in a lower radiation field than the worker's back. The inspector was informed that the placement of the dosimetry had been previously reviewed relative to guidance contained in Procedure HP-C-603, Revision 0, "Use and Placement of Dosimetry," and was informed that the placement met criteria specified therein. These criteria indicated that relocation of dosimetry should be considered if dose rates in the general work area exceed 100 mR/hr and the known work area dose rate gradients make it likely that total dose to a portion of the whole body will exceed the chest dose by more than 50%. The inspector noted that depending on the amount of time spent in the area, the radiation exposure indicated by the personnel monitoring device may underestimate the maximum exposure sustained by the individual.

The licensee's radiological controls staff re-positioned the worker and subsequently reviewed this matter and determined that the worker may have been in this area about 30 minutes. Consequently, minimal potential unmonitored exposure had been sustained. The licensee's review also indicated two additional individuals, working on two other MSIVs, also had their backs toward recirculation system piping for a short period of time, but no significant additional apparent exposure had been sustained. The licensee initiated action to ensure workers performing work were not sitting in such locations for an significant duration and indicated that this matter would be further reviewed.

The inspector noted that 10 CFR Part 20.1201(c) requires that the assigned deep-dose-equivalent and shallow-dose-equivalent must be for the part of the body receiving the highest exposure. Based on review of the licensee's procedure, it was not apparent that the licensee's procedural controls would ensure monitoring of the highest exposed portion of the body.

The inspector indicated that the adequacy of the procedure guidance regarding relocation of personnel monitoring devices to ensure compliance with 10 CFR part 20.1201(c) was an unresolved item pending further NRC review (50-352/94-07-01)

9.0 Radioactive Material Control and Contamination Control

The inspector reviewed the adequacy and effectiveness of radioactive material, contaminated material, and contamination controls at Units 1 and 2. The following matters were reviewed.

- personnel frisking practices

- use of proper contamination control techniques at work locations, including control of hot particles
- posting and labeling (as appropriate) of contaminated and radioactive material
- efforts to reduce the volume of contaminated trash, including steps to minimize introduction of unnecessary material into potentially contaminated areas, and
- adequacy of contamination surveys to support planning for and support of on-going work

The evaluation of the licensee's performance in this area was based on independent observations by the inspector and discussions with cognizant personnel.

The inspector's review indicated the licensee implemented generally effective control of radioactive and contaminated material. However, opportunities for improvement were identified.

- The inspector noted that signs posted at the Unit 1 drywell that provided guidance as to how workers should remove protective clothing were obscured by other workers sitting in front of the signs. The licensee indicated this matter would be reviewed.

- Unsecured extension cords were noted to protrude into and out of a posted contamination area near the Unit 1 control rod drive accumulators. The cords were marked and secured.

No safety concerns or violations were identified.

10.0 Unauthorized Entries Into A posted High Radiation Area

10.1 General

On February 2, 1994, the licensee determined that an Instrument and Controls (I & C) Technician made an unauthorized entry into an area (roof area of the Unit 1 Traversing Incore Probe (TIP) Room) posted as a "High Radiation Area, RWP Required for Entry"without the required RWP. The entry was in apparent violation of radiation protection access control requirements.

10.2 Specifics

On the morning of February 2, 1994, a radiation protection technician (Individual A) received a telephone call at the Health Physics Field Office from an I&C technician (Individual B) who wished to enter onto the roof of the Unit 1 TIP Room (Unit 1 @ 263' elevation) to perform work. The I&C technician was questioned by the radiation protection (RP) technician to determine what the work entailed and was told that the

work involved an electrical junction box. The work involved performance of a surveillance of a safety relief valve acoustic monitor. Portions of Procedure ST-2-041-474-1, "Accident Monitoring-Safety/Relief Valve Position Indicating Instrumentation Channel Calibration Test." were to be performed. The RP Technician (Individual A) was aware from previous work activities that the roof was posted as a High Radiation Area and a Radiation Work Permit (RWP) was required. Individual A was also under the impression that the actual size of the area posted as a High Radiation Area may have recently been reduced and as a result the I& C technician may not need an RWP to enter the area. Individual A informed the worker that in the event that he (the I&C technician) encountered any radiological posting, such as ar RWP boundary, he (the I&C technician) was to stop and call the radiation protection group.

(Note: The inspector discussed the nature of the telephone conversation with a second radiation protection technician (Individual C) who was in the HP Field Office at the time the call was received. Individual C confirmed that Individual A directed the I&C technician to stop if any radiation protection boundaries were encountered and contact radiation protection personnel.)

(Note: The inspector discussed with the I&C technician (Individual B) the nature of his telephone discussion with the RP technician. The I&C technician indicated he was told by radiation protection personnel that an RWP was not required for entry onto the TIP Room roof.)

Individual B subsequently went to the area (roof of TIP Room) and encountered signs and barricades that indicated the area was a High Radiation Area and an RWP was required to enter the area. As a result of the I&C technician's previous telephone discussion with Individual A, the I&C technician believed he was granted permission to enter the area and consciously crossed the clearly visible signs and barricades to enter his work area. Individual B worked in the area for about four hours without an RWP.

In the early afternoon of that day (February 2, 1994) Individual B's supervisor (Individual D) called the HP field office and requested access to the same area entered by Individual B. Individual D had previously gone to the area and had observed the signs and barricading on the roof of the TIP room. The purpose of the entry by Individual D was to perform an independent verification of the work performed by Individual B. Individual D spoke to a HP Field Office technician (Individual E) who indicated that Individual D would need to sign an RWP to enter the area. Individual D's call was transferred to an RP supervisor (Individual F). Individual D was told that a radiation protection technician would accompany him, because previous radiation surveys of the roof area were no longer valid. Individual D returned to the HP Field Office to read and sign-in on the RWP. When checking the RWP, the supervisor noted that Individual B had not signed the RWP. The RWP was in an inactive status and could not have been used. Station management was contacted and it was subsequently determined

that the individual had apparently entered the posted area without being signed in on the applicable RWP.

The licensee initiated an investigation of the matter.

10.3 Licensee Actions and Evaluations

The licensee took the following actions.

- Radiation protection personnel immediately performed radiation surveys of the areas on the TIP room roof entered by the I&C technician. No anomalous radiation levels were identified. The licensee estimated a maximum apparent whole body exposure of 16 millirem. The individual's pocket dosimeter indicated a total of 45 millirem, but only an estimated 16 millirem was believed to have been obtained on the roof of the TIP Room.

- An "all hands" meeting was conducted for the radiation protection group on February 3, 1994. The specific event and the need to improve communication was discussed.

- An "all hands" meeting was also held by the I&C group on February 3, 1994. The specific event and the need to improve communication was also discussed at that meeting.

- On February 3, 1994, the licensee's Manager, Radiation Protection, issued a Health Physics Group Information Notice to all radiation protection personnel that provided expectations in the area of communications with workers. The notice provide guidance regarding discussion of work activities with workers and specifically prohibited radiation protection technicians from authorizing workers to violate RWP boundaries.

- Both the radiation protection technician (Individual A) involved and the I&C technician (Individual B) involved in the event were subjected to drug screening. No illicit drugs were identified.

- Both Individual A and Individual B were disciplined.

- On February 4, 1994, the licensee issued a memorandum to all station supervision regarding expectations for compliance for radiological controls postings. The supervisors were expected to present the expectations identified therein to their employees by February 8, 1994.

- On February 4, 1994, the licensee issued a special issue of its station newsletter identifying to all station personnel expectations regarding compliance with radiological controls postings.

- The licensee included the matter in the performance enhancement program. A four-member event evaluation team was established to review the matter. Preliminary licensee reviews of the matter identified apparent miscommunications between the RP technician and I&C technician involved in the event.

- The licensee's reviews indicated that, with the exception of a location near a drain line on the roof of the TIP Room, radiation levels do not significantly increase when irradiated TIPs are removed from the reactor vessel and placed in storage in the TIP Room. Radiation dose rates near the drain (on contact with the TIP Room roof) increase to a maximum of about 350 mR/hr. The I&C technician was not working in this area and TIPs had not been recently removed from the reactor. Consequently, the inspector concluded that there was little likelihood of a significant unplanned radiation exposure.

10.4 NRC Review

The inspector reviewed the circumstances surrounding the entries, the magnitude of potential unplanned radiation exposures (external and internal) of Individual B, and the licensee's interim corrective actions. The inspector also reviewed the preliminary findings of the licensee's event review team chartered to review the unauthorized entry into the posted High Radiation Area.

The evaluation of the licensee's performance in this area was based on discussions with cognizant personnel, review of radiation survey data, and review of radiation work permits.

The inspector's review indicated the following.

- The area entered by Individual B, although posted as a High Radiation Area, was not a High Radiation Area. Radiation levels averaged between 2 mR/hr and 8 mR/hr.

- Individual B did not sustain any significant exposure. Estimated exposure was about 14 millirem. Also, no airborne radioactivity was present.

- Communication weaknesses between Individual A and Individual B appeared to be a primary cause of the unauthorized entry into the area.

The following apparent violation was identified.

Unit 1 Technical Specification 6.11 requires, in part, that procedures for personnel radiation protection be prepared consistent with the requirements of 10 CFR Part 20 and be adhered to for all operations involving personnel radiation exposure.

Procedure A-C-107, Revision 1, Radiation Work Permit Program and Radiological Controlled Area Access Requirements, states in Section 5.0, that all workers are responsible for complying with established postings in the radiological controlled area (RCA). Further, Section 7.6 of the same procedure states that personnel requiring access on a radiation work permit (RWP) shall proceed to the Access Control Building/Health Physics Field Office and inform Health Physics of the activity to be performed in the RCA.

The inspector noted that on February 2, 1994, an Instrument and Controls (I&C) technician did not comply with the established postings in the radiological controlled area. The inspector noted that the individual saw the signs identifying the area as a "High Radiation Area, radiation work permit (RWP) required for entry" area, but elected, based on inadequate communications with radiological controls personnel, to enter the rooftop area of the Unit 1 Traversing Incore Probe (TIP) area and work in the area for about four hours without obtaining the required radiation work permit (RWP).

The unauthorized entry represented a violation of Technical Specification 6.11. (50-352/94-07-02)

The inspector noted that this apparent violation was identified by the licensee and that immediate corrective actions, as discussed above, were taken. The inspector's review indicated that no significant personnel exposures occurred.

The inspector reviewed this violation relative to NRC's Enforcement Policy (10 CFR Part 2, Appendix C., Section VII.B.2) regarding exercise of discretion for licensee-identified violations. The inspector noted that among the criteria which must be met when considering exercise of discretion is whether the violation could reasonably have been prevented by the licensee's corrective actions for a previous violation or a previous licensee finding that occurred within the past two years of the inspection at issue.

The inspector noted that three instances of unauthorized entry into an area posted as a High Radiation Area, also without required radiation work permits, occurred on November 19, 1993 (reference NRC Combined Inspection Report Nos. 50-352/93-32; 50-353/93-32, dated January 25, 1994). The corrective actions taken at that time included enhancement of postings and dissemination to all station staff, on December 3, 1993, documented expectations that each and every worker read, understand and comply with posted information. A pictorial indication of

a "High Radiation Area, RWP Required for Entry" posting was included in the literature distributed to station staff at that time. The literature indicated that personnel are required to be logged in on the appropriate RWP before entering areas with such postings.

Based on the above, the inspector concluded that it was reasonable to expect that the instructions provided station staff following the November 3, 1993, unauthorized entries could have prevented the February 2, 1994, event. Consequently, this violation is cited.

11.0 Station Tours

The inspector toured the station periodically during the inspection. The inspector considered overall housekeeping to be generally very good. However, the following observations were made.

- Candy wrappers were observed in the radiological controlled area (RCA) (including the lower elevation of the Unit 1 dryweil). The observation indicated personnel may be consuming candy in the RCA, a poor contamination control practice.

12.0 Exit Meetings

The inspector met with licensee representatives (denoted in Section 1.0) on February 18, 1994. The inspector summarized the purpose, scope and findings of the inspection. The licensee acknowledged the findings. A followup telephone discussion relative to the apparent violation discussed above in Section 10.4 was held with the Plant Manager and Manager, Radiation Protection, on April 4, 1994.