UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA ST., N.W.
ATLANTA, GEORGIA 30323

JAN 27 1989

Report Nos.: 50-280/88-49 and 50-281/88-49

Licensee: Virginia Electric and Power Company
Glen Allen, VA 23060

Docket Nos.: 50-280 and 50-281 License Nos.: DPR-32 and DPR-37

Facility Name: Surry 1 and 2

Inspection Conducted: December 12-16, 1988

Inspectors: C. Bassett — Date Signed: 1/23/89

M. Lauer — Date Signed: 1/23/89

Approved by: C. Hosey, Section Chief — Date Signed: 1/23/89
Division of Radiation Safety and Safeguards

SUMMARY

Scope: This routine, unannounced inspection of the licensee's radiation protection program consisted of a review in the areas of organization and management controls; training and qualification; external and internal exposure control; control of radioactive materials and contamination, surveys and monitoring; and the program for maintaining radiation doses as low as reasonably achievable (ALARA). The inspection also included a review of licensee actions concerning previous enforcement items, inspector followup items and information notices.

Results: The licensee has made several changes in the health physics organization and has initiated various actions directed at improving the radiation protection program at the station. The adequacy and effectiveness of these changes and actions have yet to be determined. However, the current radiation protection program appears to be adequately protecting the health and safety of the public and licensee employees. During the inspection, weaknesses were again noted in the areas of procedural compliance and reliance on past radiological history for specific work task without making an adequate evaluation of current conditions.

Within the scope of the inspection, two violations were identified:

- Failure to evaluate adequately the extent of the radiation hazards present prior to and during decontamination work in the Unit 1 reactor cavity which resulted in failure of the licensee to provide extremity dosimetry as required by procedure.

- Failure to follow procedures for attaching temporary shielding to piping.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

*W. Cook, Supervisor, Operations, Health Physics
D. Densmore, Assistant Supervisor, Dose Control and Bioassay, Health Physics
*D. Erickson, Superintendent, Health Physics
C. Foltz, ALARA Coordinator, Health Physics
A. Friedman, Superintendent, Nuclear Training
*B. Garber, Supervisor, Technical Services, Health Physics
*E. Grecheck, Assistant Station Manager, Nuclear Safety and Licensing
M. Hotchkiss, Supervisor, Radiological Engineering, Health Physics
*M. Kansler, Station Manager
*G. Miller, Licensing Coordinator
L. Morris, Supervisor, Radwaste and Decontamination, Health Physics
*F. Wolking, Senior Staff Health Physicist, Corporate

Other licensee employees contacted during this inspection included engineers, operators, technicians, and administrative personnel.

Nuclear Regulatory Commission

*W. Holland, Senior Resident Inspector
L. Nicholson, Resident Inspector

*Attended exit interview

2. Occupational Exposure, Shipping, and Transportation (83750)

a. Organization and Management Controls

The licensee is required by Technical Specification (TS) 6.1 to implement the plant organization specified in TS Figures 6.1-2. The responsibilities, authority and other management controls are further outlined in Chapters 12 and 13 of the Final Safety Analysis Report (FSAR). TS 6.1 also specifies the composition of the Station Nuclear Safety and Operating Committee (SNSOC) and outlines its function and authority. Regulatory Guide 8.8 specifies certain functions and responsibilities to be assigned to the Radiation Protection Manager and radiation protection responsibilities to be assigned to line management.

The inspector reviewed the licensee's station organization, as well as the responsibilities, authority and control given to management as they relate to the site radiation protection program. Recent changes in station organization were reviewed and it was verified that no organizational changes had been made which would adversely affect the

ability of the licensee to implement the critical elements of the program. The new station health physics (HP) organization, as discussed in NRC Inspection Report (IR) Nos. 50-280, 281/88-35, was also reviewed and appeared to be functioning adequately.

The inspector also discussed the plant organization changes with the Station Manager and the Radiation Protection Manager to determine the degree of support received from other members of management and the responsibilities and authority of their positions. It appeared that the support necessary to improve the radiation control program was in place. The inspector noted that management's support of the program needed to be continually communicated to all station personnel in order to ensure that all licensee and contract employees are aware of management's position on the subject.

No violations or deviations were identified.

b. Staffing

TS 6.1 specifies the minimum staffing for the plant. FSAR Chapters 12 and 13 outline further details on staffing as well.

The inspector reviewed the staffing level of the station HP organization and discussed the current level with licensee representatives. At the time of the inspection, of the 58 authorized HP positions (including shift supervisors, specialists, and technicians), all but two were filled. All the 38 authorized technician positions at the station were filled with personnel who were qualified to the requirements outlined by the American National Standards Institute (ANSI) Standard N18.1-1971. Due to the outage in progress, the licensee also had acquired the help of 95 contractor HP technicians and 95 personnel who were assisting in decontamination efforts and operation of the onsite laundry facility.

No violations or deviations were identified.

c. External Exposure Control and Personnel Dosimetry

10 CFR 20.202 requires each licensee to supply appropriate personnel monitoring equipment to specific individuals and requires the use of such equipment.

During plant tours, the inspector observed workers wearing appropriate monitoring devices.

10 CFR 20.203 specifies posting and control requirements for radiation areas, high radiation areas, airborne radioactivity areas, radioactive material areas, and radioactive material. Additional requirements for control of high radiation areas are contained in TS 6.4.B.

During plant tours, the inspector observed the licensee's posting and control of radiation, high radiation, airborne radioactivity, radioactive material areas, and the labeling of radioactive material. The inspector determined that the posting and controls for the various radiological control areas were adequate. The inspector also verified that various locked high radiation areas in the Unit 1 and Unit 2 containment buildings and in the auxiliary building were being maintained locked as required.

The licensee is required by 10 CFR 20.101 and 102 to maintain workers' doses below specified levels. The inspector reviewed selected occupational exposure histories of contractor and licensee personnel and verified that the licensee was requiring a completed Form NRC-4 or its equivalent to be maintained on file in case the licensee needed to permit an individual to exceed the limits specified in 10 CFR 20.101(a). Through discussions with licensee representatives and review of selected records, the inspector determined that the radiation exposures for licensee and contractor personnel were below the regulatory limits.

No violations or deviations were identified.

d. Internal Exposure Control and Assessment

10 CFR 20.103(b) requires the licensee to use process or other engineering controls to the extent practical, to limit concentrations or radioactive material in air to levels below that specified in 10 CFR Part 20, Appendix B, Table 1, Column 1.

The use of process controls and engineering controls to limit airborne radioactivity in the plant was discussed with licensee representatives. Containment structures with portable ventilation units equipped with high efficiency particulate air (HEPA) filters were observed in use.

Licensee representatives stated that for this outage a glove box type containment structure was utilized for Units 1 and 2 Reactor Cavity Seal Ring overhauls. This allowed workers to perform the work without excessive protective clothing or respirators. The disassembly and rebuild did not result in any personnel contamination events. Licensee representatives believed that this improvement contributed to the significant decrease in exposure required to complete the job. Prior to this outage, the most recent seal overhaul had required 4.8 person-rem. The current Unit 1 and Unit 2 seal overhaul required 1.8 and 0.64 person-rem, respectively.

HP Procedure HP-5.2B.50, "Whole Body Counter Operation - Chair/ND680," dated October 14, 1987, requires that efficiency calibrations be conducted every 12 months. The inspector reviewed efficiency calibration results completed September, 1988. H-5.2B.50 also requires that energy calibrations, centroid and resolution

determination, and background checks be performed once per shift. The inspector verified that those checks had been performed at the required frequency.

10 CFR 20.103(c) requires that, when respiratory protection equipment is used to limit the inhalation of airborne radioactive material, the licensee train, medically qualify, and fit test the individual user of such equipment. The inspector verified that selected individuals issued respiratory equipment had been properly fit tested, trained, and medically qualified. Current quarter cumulative MPC-hour totals for all individuals at the plant were reviewed by the inspector. No total was observed to exceed 10 CFR 20.103 limits.

No violations or deviations were identified.

e. Control of Radioactive Material and Contamination, Surveys, and Monitoring

During plant tours, the inspector reviewed radiation level and contamination survey results posted outside various areas and cubicles. The inspector verified these radiation levels using NRC instrumentation. The inspector also reviewed selected records of radiation and contamination surveys performed by the licensee during the inspection and discussed the survey results with licensee representatives.

10 CFR 20.201(b) requires each licensee to make or cause to be made such surveys as (1) may be necessary for the licensee to comply with the regulations in this part and (2) are reasonable under the circumstances to evaluate the extent of radiation hazards that may be present. 10 CFR 20.201(a) defines a "survey" as an evaluation of the radiation hazards incident to the production, use, release, disposal, or presence of radioactive materials or other sources of radiation under a specific set of conditions.

10 CFR 20.202 requires each licensee to supply appropriate personnel monitoring equipment to specific individuals and requires the use of such equipment.

TS 6.4.D requires that radiation control procedures be followed.

HP Procedure HP-3.1.3, "Personnel Dosimetry - Dosimetry Issue and Dose Determination," dated July 27, 1988, requires in step 4.7.3.2 that the licensee evaluate the need for extremity badges when the expected exposure to the hands and forearms or feet and ankles is equal to or greater than one rem per hour and the extremity to whole body dose (12 inches from the contact dose rate) ratio is 5:1 or greater.

During tours of the Unit 1 containment, the inspector observed personnel decontaminating the reactor cavity. The reactor cavity was

being controlled as a high radiation area, an airborne radioactivity area, and a contaminated area as well as a Hot Particle Area. The latter required the use of additional protective clothing (PCs) and frequent (every two hours) personnel monitoring. It was noted that the workers were using cloth rags to decontaminate (decon) the reactor cavity seal area and the surrounding areas, as well as other areas in the vicinity of the reactor head. The personnel performing the work, and the HP technician in the cavity covering the work, were wearing a full set of PCs plus a full plastic suit, rubber boots, disposable boot covers, and full face respirators. Those in the cavity appeared to be following good radiological control practices for decon work and for maintaining exposures ALARA.

Upon reviewing documentation of the decon activities, it was noted that the radiation work permit (RWP) issued to cover the decon work required continuous HP coverage and the use of the licensee's teledose system but no special or extremity dosimetry. The teledose system consisted of integrating dosimeters with digital readouts which are issued to individuals in high dose rate areas or in areas where the dose rates may vary widely. The system allows the persons wearing the dosimeters to monitor their own exposure and also transmits a signal to a receiver which can be placed at a remote location. This enables another person to monitor the dose being received by those wearing the teledose dosimeters while remaining in a lower general area dose rate area.

Through discussions with licensee personnel and records review, the inspector learned that there had been problems with the Unit 1 reactor cavity decon job. During decon work in the reactor cavity between approximately 2 and 4 a.m. on December 14, 1988, some of the rags used in the decon effort accumulated enough contamination and/or hot particles to cause contact dose rates in excess of one rem per hour (rem/hr). This was apparently noted by the personnel in the cavity but was not known by the HP technician covering the work from the handrail overlooking the cavity. Toward the end of the job, the HP technician observed the readout of the teledose system and noted that the person gathering the rags and placing them in a bag was receiving more exposure than others in the area. At that point in the job, the work was stopped and a radiation survey was taken on the bags that had been gathered into one area. The initial radiation survey indicated that one of the bags had a radiation level reading of 25 roentgens per hour (R/hr). When it was learned that the radiation levels were of that magnitude, the bags were moved to a locked high radiation area for temporary storage by workers who had been issued extremity dosimetry.

The bags were subsequently surveyed again and two bags were found to have a radiation level reading of 10 R/hr at contact and 3 R/hr twelve inches from the bag. The rags from each of the bags were also individually surveyed for radiation level readings at contact but no

surveys were taken 12 inches from the rags. The contact results were as follows:

Number of rags	Dose rate (R/hr)
1	8.0
3	2.5
14	1.5
17	1.0

The inspector reviewed radiation surveys performed during December 12 and 13, 1988, the two days preceding the decon efforts in the Unit 1 reactor cavity. It was noted that the general area dose rates were from 300 to 500 milliroentgen per hour (mR/hr) and from 1.5 to 5.0 R/hr near the reactor vessel opening itself. These were levels present before the reactor head was placed on the vessel. The general area dose rates dropped to levels from 75 to 100 mR/hr following head replacement. Through discussions with the licensee, it was noted that, although the extremity to whole body dose ratio was not determined through direct radiation measurement, the possibility existed that the ratio was equal to or greater than 5 to 1. Based on the fact that the decon workers were handling rags reading to 8 R/hr in a location with a general area dose rate from 75 to 100 mR/hr and based on the requirements of the dosimetry procedure, the licensee acknowledged that extremity dosimetry should have been required to be worn by those deconning the cavity.

The inspector also reviewed the contamination surveys that were performed during December 12 and 13, 1988, in the reactor cavity. The contamination levels on the cavity floor and on the "bathtub ring" (approximately 3 feet down from the upper edge on the cavity wall) were found to be from 2 to 60 million disintegrations per minute per one hundred square centimeters (dpm/100cm^2) prior to head replacement. A survey taken at the approximate time of the decon activities on December 14, 1988, showed contamination levels from 280 thousand to 7.5 million dpm/100cm^2 on the cavity floor near the reactor vessel.

The reasons for the apparent elevated contamination levels in the reactor cavity were discussed with licensee representatives. The licensee indicated that this had been the most extensive decon effort performed in the cavity in several years. The licensee had used a decon system that used a series of brushes and high pressure water (WEPA system) to clean the cavity walls. The contamination levels had reportedly been reduced from 60 million to 14 thousand dpm/100 cm^2. However, the licensee did not believe that this had caused an accumulation of contamination around the reactor cavity seal ring because the water from deconning the walls had been mopped up or directed into the transfer canal drainage system.

Licensee representatives did indicate that strong backs, installed to hold down the seal ring in the event of a postulated accident, had

been left in place around the circumference of the seal ring. It was felt that these may have acted as unanticipated crud traps and that elevated amounts of contamination may have deposited there when the cavity was drained following refueling. The strong backs also restricted the use of mops which were normally used extensively to decon the area around the reactor cavity seal ring. This necessitated a great deal of hand decontamination in that area, which had not been anticipated.

Following the problems noted with the high contamination and the subsequent high radiation levels on the bags of decon rags, the licensee took several corrective actions. The bags and rags, as discussed previously, were surveyed after having been placed in a locked high radiation area. Individuals who moved the bags and who performed the radiation surveys were required to wear extremity dosimetry. The RWP covering the decon activities in the Unit 1 reactor cavity (RWP No. 88-3019) was subsequently revised to require the use of extremity dosimetry by those performing hand decontamination. The licensee also required an HP technician to be present in the work area on the reactor cavity floor to provide increased surveillance for decon rag and bag monitoring. The licensee also indicated that future outage schedules would be modified to allow time for the removal of the strong backs from around the reactor cavity seal ring and a flush of the area with water to reduce the contamination levels as much as possible. A station deviation was written concerning the event and the Radiological Engineering Section of the HP organization was assigned to investigate the incident further.

The inspector reviewed the data that had been collected during the final survey of the bags and decon rags from the Unit 1 reactor cavity. The person who had surveyed the rags had handled each bag and rag individually and his extremity thermoluminescent dosimeter (TLD) results were analyzed. The TLD results indicated that the exposure to the hands was only about fifty percent greater than that of the whole body. The licensee indicated that the extremity dosimetry results of all the decon personnel would be evaluated to determine if they were receiving excessive exposure to their extremities. Also, licensee representatives had assigned an extremity dose of 898 millirem to each of the deconners who had been working under RWP 88-3019 during the time period that the event had occurred. This millirem total was based on the "worst case" assumption that each individual had handled each rag for one minute.

The inspector discussed the initial evaluation of the radiological conditions of the reactor cavity area prior to decon and the use of dosimetry for this job with the licensee. Licensee representatives indicated that the elevated contamination levels in the reactor cavity and the high radiation level readings on decon rags were not typical and had not been encountered in the past. The use of the WEPA decon system, the presence of the strongbacks around the cavity

seal ring and the contamination levels were not assumed to present hazards different from those encountered in the past. Therefore, based on past experience, extremity dosimetry had not been considered necessary prior to initiating for the decon work. The licensee acknowledged the fact that failure to issue extremity dosimetry to the decon personnel was a problem. They indicated, however, that the finding should be considered as licensee identifed by the NRC. The finding was not viewed as licensee identified because the root cause of the problem was determined to be failure to evaluate adequately the radiation hazards present in the Unit 1 reactor cavity which then led to the licensee's failure to provide the appropriate dosimetry, and the expectation that the licensee's response to previous violations (NRC Reports 50-280, 281/88-10 and 50-280, 281/88-25) should have prevented this violation. The criterion for licnesee identified in the NRC Enforcement Policy (10 CFR 2) that the violation could reasonable be expected to have been prevented by the licensee's corrective action for a previous violation was not met.

Failure of the licensee to evaluate adequately the radiation hazards present prior and incident to decontaminating the Unit 1 reactor cavity with elevated contamination levels and conditions which had changed from those encountered historically and which resulted in the failure to provide extremity dosimetry was identified as an apparent violation of 10 CFR 20.201(b) (50-280, 281/88-49-01).

During tours of the facility, the inspector observed the exit of workers and the movement of material from contamination control to clean areas to determine if proper frisking was performed by the workers and if proper direct and removable contamination surveys were performed on materials. The inspector determined that frisking and material release surveys were adequate.

During plant tours, the inspector observed the use of survey instruments by station and contractor personnel. The inspector examined the calibration stickers on radiation protection instruments in use by various personnel and at various areas throughout the plant. All instruments examined were within the dates of calibration as indicated on the calibration stickers. There appeared to be an adequate supply of instruments which were being maintained properly.

The inspector noted that, during the decon work in the Unit 1 reactor cavity, the contract deconners had been issued radiation survey instruments for entrance into a high radiation area as required by TS 6.4.B.1.e. During the period when the bags of highly contaminated waste were generated, one of these survey instruments had failed to operate properly. Through discussions with the licensee it was determined that the deconners were issued the same type of instruments issued to anyone or any group entering a high radiation area. When questioned about the adequacy of such instruments, the licensee indicated that this practice was adequate because the instruments were only to be used to give an indication of the general

dose rates. Should a question have arisen concerning unusual radiation levels, either general area or on contact with an item (a bag filled with decon rags in this instance), then the workers should have notified the HP covering the job for further support and a better radiation reading.

f. Maintaining Occupational Exposures As Low As Reasonably Achievable (ALARA)

10 CFR 20.1(c) specifies that licensees should implement programs to maintain workers' doses ALARA. Other recommended elements of an ALARA program are contained in Regulatory Guides 8.8 and 8.10.

The inspector reviewed the licensee's program for maintaining occupational exposures ALARA including changes in the ALARA policy and procedures, ALARA considerations for the maintenance and refueling outage, and establishment of goals and objectives and effectiveness in meeting those goals.

The inspector reviewed the ALARA packages for Unit 2 recirculation spray heat exchanger replacement. A total of four heat exchangers were replaced. The Unit 1 replacement in early 1988, which also included all four heat exchangers, required 83 person-rem to complete. The Unit 2 replacement was projected to require approximately 46 person-rem. At the time of the inspection, the project was 95% complete with 49 person-rem expended. ALARA personnel stated that lessons learned from Unit 1 significantly decreased the dose received.

The ALARA package for Unit 2 refueling water storage tank (RWST) desludging was also reviewed by the inspector. This job was recently completed expending 3.23 person-rem. Unit 1 RWST desludging was in progress. The ALARA packages reviewed appeared thorough and contained sufficient information required to maintain an adequate history file for those specific jobs.

The inspector observed the morning outage status meetings attended by upper level management during the week of the inspection. Current cumulative plant exposure and its relation to the goal were discussed at all meetings attended.

TS 6.4.D requires that radiation control procedures be followed.

HP Procedure HP-5.4.50, Temporary Shielding, dated April 28, 1988, contains guidance on temporary shielding and provides, in attachments to the procedure, forms to be utilized to give detailed instructions on shielding placement and attachment. A copy of Attachment 3 of HP Procedure HP-5.4.50, contained in Temporary Shielding Request 88-55 and completed specifically for shielding the reactor cavity drain line on the -27 foot elevation of the Unit 1 containment, requires in step 3 that shielding used shall be attached

with ties, stainless steel wire, or red tape. Step 3 also requires that, if tape is used, it will not be placed directly on the pipe.

During tours of the Unit 1 containment on December 14, 1988, the inspector observed various locations where temporary shielding had been installed to lower the contact and general area dose rates. The temporary shielding that had been placed on the reactor cavity drain line on the -27 foot elevation was noted to have been laid over the pipe but was not fastened or attached in any manner. The reactor cavity drain line, which was approximately two inches in diameter and approximately four inches above the floor, had hot spots ranging from three to twenty R/hr and the shielding had been placed over those spots. The inspector noted that the shielding could be moved easily and, if moved, would expose the hot spots and raise the general area dose rates.

The inspector notified licensee representatives of the situation and reviewed the temporary shielding package. The licensee indicated that the shielding should be attached to the pipe in some manner, as prescribed, even though the pipe was close to the floor. During a tour of the Unit 1 containment of December 15, 1988, the inspector noted that the shielding had been attached to the pipe with red tape but it was also noted that the tape had been placed directly on the pipe. Again the licensee was notified of the shielding situation. The licensee then removed the tape from the pipe and attached the temporary shielding as required by the procedure.

Failure to comply with the requirements of the temporary shielding procedure was identified as an apparent violation of TS 6.4.D (50-280, 281/88-49-02).

g. Facility Statistics

In 1987, the station's cumulative personnel dose was 356 person-rem per reactor as compared to the Pressurized Water Reactor (PWR) national average of 369 person-rem/reactor. As of December 13, 1988, the cumulative outage dose was approximately 610 person-rem as compared to the goal of 566. The station's yearly total as of December 13, 1988, including both outage and non-outage exposure, was approximately 728 person-rem/reactor while the annual goal had been set at 734 person-rem/reactor.

As of December 1, 1988, the licensee had experienced a total of 211 skin and 267 clothing contaminations compared to a total of 174 skin and 319 clothing contaminations for 1987. This is a downward trend in personnel contaminations when the number of outage days for the two years are considered. In 1987, the licensee had a total of 115 scheduled and unplanned outage days. There had been 202 scheduled and unplanned outage days in 1988, as of December 14, 1988.

Licensee representatives indicated that approximately 24,000 cubic feet (ft^3) of solid radioactive waste had been shipped to waste collectors or burial sites through December 1, 1988 containing 189 curies of activity. During 1987, the licensee had shipped approximately 24,000 ft^3 of solid waste containing about 29,000 curies of activity. The high curie total for 1987 was attributed to shipping process resins and activated material which came from cleaning up the spent fuel pool.

At the end of 1987, the licensee maintained approximately 22,400 square feet (ft^2) within the Radiation Control Area (RCA), excluding the containment buildings, as contaminated. This represented about 24 percent (%) of the total 92,000 ft^2 within the RCA. As of December 1, 1988, approximately 21,350 ft^2 were being controlled as contaminated area or about 23% of the RCA.

No violations or deviations were identified.

3. Action of Previous Inspection Findings (92701)

a. (Closed) Inspector Followup Item (IFI) 50-280/87-FRP-10, Followup on Licensee's Program for Removing/Defacing Radiation Markings on Clean/Used Equipment Released for Unrestricted Use.

The inspector discussed this issue with licensee representatives and reviewed current practices. Licensee representatives stated that it is the station's policy not to allow containers with radiation markings to leave the controlled area. Clean containers, specifically 55 gallon drums, which had markings and were released from the controlled area in the past were crushed thereby destroying the markings.

b. (Closed) IFI 50-280, 281/88-03-01, ALARA Exposure Goals are Based on Exposure Incurred Per Day Rather than Exposure Associated With the Specific Task to be Performed.

The inspector reviewed the licensee's response dated September 16, 1988, which stated that department daily exposure goals would not be substituted for task specific goals. The inspector also reviewed a memorandum, dated October 31, 1988, to all supervisors from the assistant station manager dictating that exposure goals be focused on task specific exposure instead of exposure per unit time, i.e. person-rem/day. Discussions with station ALARA personnel verified that current practice was in agreement with this memo.

c. (Closed) IFI 50-280, 281/88-03-02, Dose Projections for Some Work Covered by Radiation Work Permit Are Being Exceeded Without Management Review of Concurrence.

The inspector reviewed a Station Commitment Assignment/Response form documenting an enhancement system planned for implementation by

March 31, 1989. The inspector discussed these software enhancements with licnesee personnel who stated that an automatic block preventing RWP sign-in will be activated when 125% of the estimated collective exposure for the job is observed for RWPs estimated to require greater than 500 person-mrem to complete. For jobs estimated to require less than 500 person-mrem to complete, a block will be activated when the RWP exceeds 500 preson-mrem collective dose. To deactivate the block, an RWP reevaluation meeting must be held.

d. (Closed) IFI 50-280, 281/88-03-03. There is Little or No Management Involvement in the Decision Process for Entries Into the Containment Builidng When the Plant is at Power.

The licensee's response, referenced above, specified certain procedure revisions to correct this finding. The inspector reviewed Administrative Procedure 38, "Guidelines, Procedures and Limitations for Containment Entry," dated September 16, 1988. This procedure stated that permission to enter subatmospheric containment may be given only by the SNSOC. Licensee representatives stated that other procedures require that only the Station Manager or Assistant Station Manager may be chairman of the SNOSC.

e. (Closed) IFI 50-280, 281/88-03-04, The Licensee's ALARA Action Plan Does Not Include Formal Milestones for Implementing the Recommendations.

The licensee's response, referenced above, stated that the ALARA Action Plan was reviewed with milestones formalized and confirmed by the Corporate ALARA Coordinating Committee (ACC). The inspector reviewed an ACC Recommendations Follow-up document dated September 28, 1988, and verified that it contained milestones and implementation dates.

f. (Closed) IFI 50-280, 281/88-03-05, The Licensee's ALARA Program Procedures Have Not Been Revised to Conform to the Corporate Radiation Protection Plan.

Licensee representatives stated that revised procedures which conformed with the corporate radiation protection plan were completed and implemented on April 28, 1988.

g. (Closed) IFI 50-280, 281/88-FRP-18: Consultant Review of Station Activities Planning and Management.

A consultant had performed a review of the activities planning and management at the station. The consultant review indicated several areas where improvement was needed. The inspector reviewed the licensee's action plan that had been established to address the various areas needing improvement. The proposed actions included development of a program for self-identification of problems, a review of supervisory/management responsibilities during outages, a

review of the outage planning process, and development of a source term radiation plan including long term decontamination efforts. The proposals appeared to be adequate.

Because action plan contained numerous new scheduled completion dates for the improvements proposed. an IFI will be established to follow the development and implementation of these improvements (50-280, 281/88-49-03).

4. Followup on Information Notices (92717)

The inspector determined that the following Information Notices (IN) had been received by the licensee, reviewed for applicability, distributed to appropriate personnel, and that action, as required/appropriate, was taken or scheduled.

IN 88-32: Prompt Reporting to NRC of Significant Incidents Involving Radioactive Material

IN 88-62: Recent Findings Concerning Implementation of Quality Assurance Programs by Suppliers of Transport Packages

IN 88-63: High Radiation Hazards From Irradiated Incore Detectors and Cables

5. Exit Interview

The inspection scope and findings were summarized on December 16, 1988, with those persons indicated in Paragraph 1. The inspector described the areas inspected and discussed in detail the inspection findings listed below. The concern about relying too heavily on historical data and past experience without making an adequate evaluation of the current situation and conditions was reviewed with the licensee. The licensee indicated that the finding concerning the failure to provide extremity dosimetry to the decon personnel should be considered as licensee identified. The licensee did not identify as proprietary any of the material provided to or reviewed by the inspector during the inspection.

Item Number	Description and Reference
50-280, 281/88-49-01	Violation - Failure to adequately evaluate the extent of radiation hazards present prior to and during decon operations in Unit 1 reactor cavity (Paragraph 2.e.(2)).
50-280, 281/88-49-02	Violation - Failure to follow procedure for securing temporary shielding to piping (Paragraph 2.f.(4)).

50-280, 281/88-49-03	IFI - Followup on the licensee's actions to improve the activities planning and management at the station (Paragraph 3.h).

Licensee management was informed that the items discussed in Paragraph 3 were considered closed.