APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Inspection Report: 50-267/94-08

License: DPR-34

Licensee: Public Service Company of Colorado
P.O. Box 840
Denver, Colorado 80201-0840

Facility Name: Fort St. Vrain Nuclear Generating Station

Inspection At: Fort St. Vrain, Platteville, Colorado

Inspection Conducted: December 5-7, 1994

Inspector: R. J. Evans, Health Physicist
Fuel Cycle and Decommissioning Branch

Approved: Charles L. Cain 1/5/95
Charles L. Cain, Chief Date
Fuel Cycle and Decommissioning Branch

Inspection Summary

Areas Inspected: Routine, announced inspection of facility status, organizational structure, selected radiation protection program areas, emergency preparedness program, and followup on previously identified inspection findings.

Results:

- The organizational structure and staffing levels were appropriate for the work in progress at the facility (Section 2).

- Improvement in the Radiological Occurrence Report program was noted, especially in the area of self-assessment. The ALARA committee was being effectively used to monitor important radiation protection program attributes, including the review and trending of Radiological Occurrence Reports. Overall, no detrimental downward trends were identified during the review of the performance indicators (Section 3).

- The Emergency Response Plan had been developed, implemented, and maintained to comply with the Technical Specifications requirements. No discrepancies were identified between the requirements of 10 CFR Part 50, Appendix E, Emergency Planning and Preparedness for Production

and Utilization Facilities, and the licensee's emergency response program (Section 4.1).

- All emergency equipment and supplies were accounted for and were available for immediate use in case of an emergency incident (Section 4.2).

- The licensee's response during the biennial emergency preparedness exercise demonstrated its ability to effectively implement the Emergency Response Plan (Section 4.3).

- Flow diagrams and operating procedures of contractor-controlled equipment were not available in the Control Room or the Technical Support Center. This might affect the licensee's ability to mitigate certain events in a timely manner. The effectiveness of the onsite communications was mixed during the exercise (Section 4.3).

- Quality assurance audits were being performed that met the intent of the Decommissioning Technical Specifications. The licensee's self-critiquing process following the emergency exercise was determined to be capable of objectively identifying areas in need of correction (Section 4.4).

Summary of Inspection Findings:

- A non-cited violation was identified involving the failure to submit a change to an Emergency Response Plan implementing procedure within the required time frame. The violation appeared to be an isolated incident and was licensee identified (Section 4.4).

- Exercise Weakness 50-267/9015-02 was closed (Section 5.1).

- Violation 50-267/9118-01 was closed (Section 5.2).

- Exercise Weakness 50-267/9118-02 was closed (Section 5.3).

Attachment:

- Persons Contacted and Exit Meeting

DETAILS

1 FACILITY STATUS

The major decommissioning task in progress at the facility was the dismantlement and decontamination of the radioactive portions of the prestressed concrete reactor vessel. The decommissioning work was being performed by a Westinghouse Team that consisted of personnel from Westinghouse Electric, Scientific Ecology Group (SEG), and MK-Ferguson. At the time of the inspection, the project was about 40 days behind schedule. The completion of the decommissioning project is currently scheduled for June 1, 1996.

The removal of the core support floor was the next major evolution in progress. Divers were being used for this activity; however, the work was being impeded by the poor water clarity. The licensee had initiated actions to clean up the water, and water clarity was slowly improving over time. Since the licensee was planning to lift the core support floor to cut the floor, support steel and a jacking mechanism were being developed and installed. Construction of the rigging holes had started (a toggle-type of rigging was planned for attachment to the core support floor). Also, a core support floor shield plate was installed to minimize personnel exposures. The shielding consisted of 3 inches of carbon steel that was to be left in place and eventually cut up for off-site disposal.

The work platform was removed from the vessel cavity. The licensee planned to disassemble and decontaminate the platform. Diamond-wire pulleys, a slurry collection system, and containments were being installed in preparation for two horizontal beltline cuts in the prestressed concrete reactor vessel. The work package, which provided lifting, support system, containment, and concrete cutting instructions, was in draft at the time of the inspection.

Other work in progress included decontamination of the hot storage facility, regeneration pit, equipment storage wells, balance-of-plant systems, and the prestressed concrete reactor vessel auxiliary piping system (which previously provided helium cooling to penetrations). Shield water system volume was reduced from about 350,000 gallons to about 250,000 gallons. The volume was reduced to increase the diver underwater stay time (as a result of the reduced water pressure).

As part of the repowering project, the abatement of asbestos insulation was in progress in the turbine building.

On October 25, 1994, the licensee experienced a load handling incident that was the result of unsafe rigging practices. MK-Ferguson personnel were attempting to set the hot storage facility cover slab in a horizontal position using the reactor building crane. The lifting method used caused a lateral load to be experienced on the rigging eye-bolts. One of the bolts subsequently failed, resulting in an uncontrolled swing of the 34-ton slab. No one was injured and no property damage occurred because of the incident. The licensee made a preliminary evaluation that the incident was the result of

a failure to follow procedures in two areas: personnel failed to follow guidelines established in an industry-accepted rigging manual involving the use of eye-bolts, and supervisory personnel were not present during the rigging and movement of the slab.

This was not the first event involving unacceptable movement of heavy loads in the reactor building. Previous incidents included placing the fuel handling machine in an unanalyzed condition (documented in NRC Inspection Report 50-267/93-01), overloading the auxiliary hoist while attempting to remove the top head access penetration plug (also documented in NRC Inspection Report 50-267/93-01), and overloading the main hoist while attempting to move a block of concrete (NRC Inspection Report 50-267/93-02). The NRC inspector previously concluded that one cause of the events was that the MK-Ferguson personnel had placed an emphasis on production or continuation of work at some expense to safety. There is no evidence that the most recent event was the result of an emphasis for production; however, the incident was an unsafe work practice. Corrective actions taken included the generation of a problem report and a discussion of the event with the responsible personnel. Also, one key individual involved in the event quit the project immediately after the incident. At the conclusion of the inspection, the incident was still under investigation by the licensee.

2 ORGANIZATION (36800)

The organizational structure was reviewed to determine if the structure and staffing levels were in compliance with license requirements and commitments.

2.1 Inspection Findings

The licensee's organizational structure is described in the Decommissioning Plan and the Independent Spent Fuel Storage Installation (ISFSI) Safety Analysis Report (SAR). The Decommissioning Plan, Section 2.4, provides a description of the decommissioning organization and responsibilities for key positions for the Public Service Company of Colorado. Section 2.5 of the Plan provides a description of the contractor organization and functions. Section 3.2 provides a description of the radiation protection organization. Also, the Plan contains flow charts that show the functional diagrams for the management chain of command.

The ISFSI SAR, Section 9.1, describes the staff needed to support ISFSI operation. The ISFSI SAR also includes a figure that shows the functional diagram of the ISFSI staff chain of command. Key members of the licensee's staff have dual job titles, one for the ISFSI and the other for the decommissioning activities.

The current staff was compared to the organizational charts provided in the Plan and SAR, and were compared to the 1993 numbers documented in NRC Inspection Report 50-267/93-04. As of December 6, 1994, the total onsite staff consisted of 271 persons:

- The number of licensee staff members was 66 persons, down 2 from late 1993.
- The security staff consisted of 20 persons, down 1.
- Westinghouse staff consisted of 18 persons, up 3.
- SEG (radiation protection personnel) staff consisted of 77 persons, up significantly from the previous level of 40-45.
- MK-Ferguson staff remained essentially unchanged at 90 persons (site labor staff varies according to the work load).

The onsite SEG organizational structure was significantly revised on April 8, 1994, in response to an apparent falsification of radiation protection records incident (documented in NRC Inspection Report 50-267/94-03). The SEG organization was revised again on July 21, 1994. Key management positions in the SEG organization included the Projects and Long Range Planning Manager and Project Radiation Protection Manager. Also, several other supervisory level positions were created and some older ones were eliminated in the SEG organizational structure changes.

Following a review of the organizational charts, changes to the charts were warranted based on recent personnel changes in the onsite staff. For example, the Project Controls Manager was transferred to the licensee's corporate office and the position was abolished. The SEG organizational chart, Figure 3.2.1 in the Decommissioning Plan, was under revision to take into account the numerous changes made to the SEG staff during the previous reorganizations.

Other staff changes were noted. The former Decommissioning Engineering Manager was transferred to the corporate office. A new individual was selected for the position of Decommissioning Engineering Manager (this individual also assumed the role of ISFSI Engineering Manager). The former Westinghouse Project Director left Westinghouse and the onsite Westinghouse Engineering Manager assumed the Project Director's position. Finally, the current Decommissioning Program Director planned to retire at the end of the 1994 calendar year. The Deputy Director was expected to assume the position of Program Director. The licensee was not planning to staff the Deputy Director's position for the duration of the project.

Since the Decommissioning Plan and the ISFSI SAR are essentially commitments to the NRC, any changes made to the organizational structure, as described in the Plan and SAR, will require formal changes be made to these documents.

During the inspection period, a licensee representative was working on the proposed document changes. All NRC comments were presented to the reviewer prior to the end of the inspection.

2.2 Conclusions

The licensee's actual organizational structure reflected the Decommissioning Plan and ISFSI SAR commitments with a few minor variations. The staffing levels were appropriate for the work in progress at the facility. The recent changes to the organizational structure will require that changes be formally made to the referenced documents and submitted to the NRC.

3 OCCUPATIONAL EXPOSURE DURING SAFSTOR AND DECON (83100)

The purpose of this inspection was to determine the adequacy of the licensee's occupational radiation protection program during site decommissioning. The following paragraphs provide details of findings made during the inspection.

3.1 Radiological Occurrence Report Review

According to the Decommissioning Plan, Section 3.2.10, the licensee committed to establishing methods to identify radiological incidents and radiological deficiencies in order to determine root causes and to correct errors that cause radiological performance problems. One of the primary methods of accomplishing this is with the Radiological Occurrence Report (ROR) program. The RORs for 1994 were reviewed to determine if the program was being effectively used to correct identified problems.

Several RORs that were reviewed in detail included:

- ROR 94-29: Used, contaminated supply fan filters were found in a trash dumpster outside the turbine building. The cause of the event was apparently inattention to detail. Corrective actions taken included removal of the filters and briefing the radiation protection technicians about the incident.

- ROR 94-40: A contaminated vacuum hose, thought to be clean, was used during work on the fuel handling machine, resulting in multiple individuals becoming contaminated. Again, the cause of the event was inattention to detail. Corrective actions taken included decontamination of the area and counselling the responsible individuals. The ROR investigator suspected that a contributing cause of the event was related to radiation protection technician complacency because low levels of contamination are routinely experienced during work at the facility.

- ROR 94-64: This ROR documents an occurrence that previously should have been investigated by the ROR process. In June 1994, five individuals

became contaminated, but an RGR, required by procedure, was not issued until October 1994.

- ROR 94-65: This ROR also documents an occurrence that previously should have been investigated by the ROR process. In June 1994, a radiation work permit was revised to change protective clothing requirements. This decision led to unanticipated personnel contaminations. An ROR was not written on the incident until October 1994.

- ROR 94-70: The licensee discovered that two smears for contamination in the repower area (an area considered to be clean and the buildings removed) were found to be positive (above the minimum detectable activity level). Although this ROR was still open at the time of the inspection, cross-contamination may have caused the higher than expected readings.

Overall, the Inspector concluded that the program had shown improvement since the previous inspection (documented in NRC Inspection Report 50-267/94-02). The ROR implementing procedure and the ROR form had been upgraded. Discussions and trending of RORs was more prevalent at ALARA committee meetings than in the past. The issuance of RORs 94-64 and 94-65 demonstrated that the radiation protection organization is aggressively attempting to identify and document past mistakes with the ROR program.

3.2 ALARA Committee Review of RORs

In accordance with Decommissioning Plan, Section 3.2.5.1, As-Low-As Reasonably Achievable (ALARA) Program, an ALARA committee was established to review work activities for effective dose reductions techniques and conformance with the radiation protection program policies and procedures. One of the committee's tasks is to review the RORs and to identify any adverse trends associated with the incidents that result in RORs.

Discussions of ROR trends had occurred in many committee meetings, suggesting a heightened awareness to closely monitor these and other problem reporting systems. Also, RORs considered to be significant appeared to have received appropriate attention during the meetings. Trends that were recently reviewed by the committee included the numbers and types of ROR being written.

Other committee agenda items that have received attention recently include review of exposure evaluation reports, quarterly self-assessment results (a proactive action on the part of the licensee), digital alarming dosimeter failures (apparently a software problem), and the performance indicators.

3.3 Performance Indicator Summary

The most recent performance indicators were reviewed to ensure that the licensee's performance was not deteriorating from the original goals established for the project.

The Decommissioning Plan originally estimated that the total project exposure would be 433 person-rems. For the year 1994, the exposure estimate was originally set at 124 person-rems, with an ALARA goal of 100 person-rems. The goals and estimates indicated that the licensee was aggressively attempting to keep overall exposure rates ALARA. According to the most recent performance indicators (through the end of October 1994), the actual exposure total for 1994 was 59 person-rems and the project total (1992-1994) was 149 person-rems. Actual exposure rates continue to remain below original estimates.

With respect to external exposure control, no individual at the facility is currently near the annual NRC limits for occupational exposures. The licensee received an exemption from the new 10 CFR Part 20 requirements; therefore, the old limits (3000 millirems per quarter) are applicable although the licensee had established administrative limits that are well below the NRC limits. Since many individuals had received doses at other facilities, two sets of data were presented to the inspector. As of December 7, 1994, 11 people have received doses of over 1000 millirems at the Fort St. Vrain facility in calendar year 1994, with the highest onsite dose being 1530 millirems for an ironworker. The facility also has 31 individuals on site that have received over 1000 millirems for the year as a result of exposure at the licensee's facility plus other facilities. The highest individual dose was 2878 millirems for calendar year 1994.

With respect to internal exposure control, no individual has received an internal uptake of radioactive materials. The whole body counts and tritium analysis results have all been negative since the start of the project (as of October 1994).

Personnel contamination events appeared to be increasing. Up to the end of October 1994, 77 of 123 contamination events had occurred in 1994, 13 of the events occurring in October 1994 alone. Although this number is well below the national averages for power facilities, the licensee showed some concern for the increase in events. A licensee representative stated during the inspection that most events were of little consequence or concern.

As of November 1994, the number of offsite shipments totalled 279. The shipments contained 64,000 cubic feet of material and 71,000 curies of activity.

3.4 Conclusions

Improvement in the ROR program was noted, especially in the area of self-assessment.

The ALARA committee was being effectively used to monitor important radiation protection program attributes, including the review and trending of RORs.

The licensee had not experienced an overexposure or a detectable intake during the inspection period. External exposures remain well below established limits. Contamination events appeared to be increasing, a trend that the

licensee is fully aware of; but, a trend that remains below the national averages for power plants. Overall, no detrimental downward trends were identified during the review of the performance indicators.

4 OPERATIONAL STATUS OF THE EMERGENCY PREPAREDNESS PROGRAM (82701)

An inspection of the licensee's emergency preparedness program was performed to determine whether the program is being maintained in a state of operational readiness. The inspection consisted of a review of the Emergency Response Plan and implementing procedures, emergency equipment and supplies, and independent and internal reviews and audits. Additionally, the exercise scenario was reviewed, and the licensee's performance during the biennial emergency exercise was independently evaluated.

4.1 Emergency Response Plan and Implementing Procedures

The Decommissioning Technical Specifications, Section 5.4.1, states that written administrative procedures, plans, manuals, and/or programs shall be established, implemented, and maintained covering selected activities that include the Decommissioning Emergency Response Plan (ERP). The ISFSI Technical Specifications, Section 4.4, states, in part, that plans and procedures shall be established and implemented to assure compliance with the Technical Specifications and government regulations, and shall include a radiological emergency plan and implementing procedures.

The licensee's ERP, Revision 4, applies to both the Fort St. Vrain facility and the ISFSI, and: (1) provides a mechanism to evaluate and classify emergencies according to the severity of the situation, (2) describes the organization and communications that will be established in response to the emergency, (3) outlines the courses of action and protective measures necessary to mitigate the consequences of the accident, and (4) describes the recovery organization and considerations needed to return the facility to the pre-emergency condition.

Based on the credible accident scenarios still existing at the site, there are only two levels of event classifications, Notification of Unusual Event and Alert. The other two classifications used at operating power reactors, Site Area Emergency and General Emergency, are no longer applicable.

Procedures were developed to implement the ERP. These implementing procedures were included in the Emergency Response Manual, DPM 5.2, Issue 2. Sixteen procedures are attached to the Emergency Response Manual which provide the detailed implementation instructions. During the inspection, the ERP, Emergency Response Manual, and 14 of 16 implementing procedures were reviewed.

Comments about the procedures not provided in other sections of this Inspection Report are provided below:

- The flowchart on page 44 of the ERP, representing the communication links between onsite and offsite centers, left out the primary link between the Technical Support Center and the licensee's corporate office.

- Procedure DPP 5.2.2, "Personnel Emergency Response," Issue 3, Step 3.2.1.a, listed the responsibilities of the emergency coordinator. The list in the procedure was incomplete. The ERP listed additional responsibilities that were not in the procedure, including the duties of initiating corrective actions, diagnosing the accident, and estimating radioactive exposures.

- Procedure DPP 5.2.3, "ERP-Control Room," Issue 4, Attachment D, did not list the most current NRC Operations Center telephone number. Procedure DPP 5.2.11, "ERP-Technical Support Center," Checklist 12, also did not have the most current telephone number for the NRC Operations Center. A licensee representative stated that plant change forms were being processed to update the procedures.

- Procedure DPP 5.2.9, "ERP-Teams," Issue 4, had several checklists and forms attached to the procedure. The procedure failed to clearly delineate who, by title, was responsible for completing Attachment A, Emergency Response Team Dispatch Form.

- Several other minor procedure errors or problems were presented to the licensee for resolution.

4.2 Emergency Equipment and Supplies

The ERP, Section 7.0, provides a description of the facilities and equipment required to mitigate the consequences of an emergency. The facilities include the Technical Support Center and the main control room. The supplies include communications systems, first aid and medical facilities, damage control equipment, an emergency response vehicle (the operations department truck), meteorological instrumentation, decontamination facilities, and copies of implementing procedures. Details of what equipment and supplies are required and where the equipment and supplies are located are provided in several implementing procedures.

The day before the biennial emergency preparedness exercise, an inspection of all facilities and supplies was performed. All facilities and supply cabinets were properly stocked and prepared for an emergency. Copies of implementing procedures were up-to-date and were conveniently located in the emergency facilities. As an aid to plant personnel involved in emergency response, several key documents, such as the ERP emergency action level tables, were enlarged and were conveniently located in the control room and Technical

Support Center. The licensee also maintained an up-to-date ERP duty roster, which listed each emergency response position and the primary and alternate persons designated for the positions.

During the exercise, the inspector noted that one Technical Support Center supply cabinet, located outside the entry door to the facility, was not opened during the exercise (seal remained intact). It was not clear if the cabinet was not opened because the equipment in the cabinet was not needed or if the facility personnel forgot about the cabinet because it was located outside of the facility.

4.3 Emergency Preparedness Exercise

The biennial emergency response exercise was held on December 7, 1994. The exercise scenario involved a container of radioactive resin beads being dropped on the shield water system, resulting in a contaminated material spill and an uncontrolled loss of the shield water system. Three injuries involving contaminated individuals were simulated to test the capabilities of the emergency response teams.

The licensee successfully demonstrated the following during the emergency preparedness exercise:

- The control room properly detected and classified the event as an Alert.
- Personnel accountability was completed within the 1-hour time limit.
- Staffing of the Technical Support Center was completed within the 90-minute time limit (this could have been more of a challenge if the exercise had occurred in the middle of the night rather than at the beginning of a work day).
- Dose assessments and dose rate calculations appeared to be in compliance with procedural requirements.
- Notification of offsite authorities was performed within designated time limits (however, a licensee self-critique observation thought the offsite "911" call could have been more timely).
- The emergency team in the reactor building appeared to effectively handle the contaminated, injured individuals.
- The licensee had properly stocked emergency equipment and first aid supplies in the required locations (refer also to Section 4.2 of this Inspection Report).
- The licensee performed an effective self-critique following the completion of the exercise (refer also to Section 4.4 of this Inspection Report).

Areas of the exercise that were marginal included the content of public address announcements, the determination by the emergency coordinator that the facility was in the recovery phase, completion of several required checklists in a timely manner, and the information available to the control room about the shield water system. Areas of the exercise that were not inspected in detail included the training and qualification of exercise participants (although the licensee did provide several training drills in the weeks prior to the formal exercise).

The announcements made during the event were marginal when compared to the procedural requirements. The ERP Section 6.1 states that the plant fire alarm will be sounded to indicate emergency conditions involving a fire or other emergency conditions, regardless of the emergency classification. This section also states that the location and the extent of the event should be announced over the public address system. Procedure DPP 5.2.2, "Personnel Emergency Response," Issue 3, Step 3.1.3 states that all personnel who are outside of the protected area when the plant alarm sounds will remain inside the nearest building equipped with a public address system and await further instructions concerning the emergency. Step 6.4.2 of this procedure stated that upon satisfactory completion of initial accountability, the emergency coordinator shall make an announcement over the public address system as to the condition of the emergency and whether personnel can return to work. Also, if the emergency response organization needs to be established, an appropriate announcement will be made and the emergency pager system activated.

Once the event was recognized and properly classified by the plant operators, an initial announcement was made over the public address system. The announcement included the fire alarm and a description of where the event was taking place. The initial announcement failed to state that an Alert event was in progress, that the Technical Support Center was to be activated, and that plant personnel were to report to their designated accountability stations. Additionally, followup or status pages were not provided, other than a page stating that people not affected by the drill could return to their normal duties. In other words, plant personnel were not being kept informed of the accident while the exercise was in progress.

The inspector noted that the control room did effectively actuate the emergency pager system in a timely manner.

The decision of the emergency coordinator to declare the event a Notification of Unusual Event (a classification level below an Alert), followed by the determination that the recovery organization was ready to be established, was premature. The decision by the emergency coordinator to leave the Alert classification was based on the following: no radioactive material had been released outside of the reactor building; there were no worsening conditions present in the reactor building; no mitigation of the accident was possible (specifically, the shield water system breach could not be isolated); and to prepare the onsite organization for facility cleanup. However, the decision to downgrade from an Alert was made with the shield water system breach still

draining water from the prestressed concrete reactor vessel to the containment sump.

The ERP requirement that the plant must be in a stable condition for entry into recovery operations was not met because the shield water system was still draining. The second ERP requirement that radiation levels must be stable or decreasing with time may not have been met either. The licensee thought that the radiation levels would have remained steady but the NRC inspector noted that the levels may have not been stable as more and more of the remaining vessel internals became uncovered and exposed to the atmosphere. The inspector concluded that if the plant had actually experienced an uncontrolled loss of the shield water system, the licensee probably would not have prematurely entered the recovery phase of operation.

Checklists, attachments to the implementing procedures, are used to assist emergency response personnel in the successful performance of their duties. During and after the drill, the NRC inspector noted that several checklists were not completed in a timely manner. For example, the Emergency Maintenance Representative Checklist was not completed in a timely manner; the First Aid Checklist was filled out but not signed; one out of three Medical Emergency Plan Checklists was incomplete; and all three Medical Emergency Plan Checklists were not signed.

During the exercise, the control room operators were questioned about their knowledge of the shield water system. The shield water system is one of several systems that are under the control of the onsite contractors. The operators were fully aware of which power supply breakers had to be manipulated to de-energize the system, but little other information was available in the control room. Copies of an operating procedure and piping and instrument diagrams were not available in the control room, although copies of these documents could be located in the reactor building at the local control panel. Additionally, the Technical Support Center did not have copies of these documents either.

This finding appeared to be representative of some potential problem areas: could the plant operators effectively and rapidly manipulate equipment during an emergency that is under the control of the contractors; and could the Technical Support Center effectively manipulate the same plant equipment during an emergency. Control room operators are initially responsible for mitigating plant incidents and initiating corrective actions in response to the incidents. Being uninformed about the systems could hinder initial recovery actions, especially during off-hour emergencies when plant staffing levels are at their lowest. Therefore, the fact that procedures and diagrams of contractor-controlled systems were not available in the control room or in the TSC might affect the licensee's ability to mitigate an event.

Other observations that were presented to the licensee included:

- The emergency maintenance representative, located in the Technical Support Center, appeared to be underutilitzed and uninvolved in some discussions.

- When the emergency director, located in the control room, downgraded the event from an Alert to a Notification of an Unusual Event, the emergency director responsibilities apparently shifted back to the lead control room operator, according to the wording of the ERP and implementing procedures. The Technical Support Center retained control although the control room was supposed to be in control. Some licensee personnel apparently were not aware of this shift in responsibilities during a downgrading of events. (Although this finding is not significant, the licensee stated that they would review this issue.)

4.4 Independent and Internal Reviews and Audits

Internal self-assessments by the licensee included both annual quality assurance audits of the emergency response program and a self-critique process following an emergency exercise. According to the Decommissioning Technical Specifications, Section 5.3.6.a, a decommissioning program audit is required to be performed at least once per year, which includes an audit of the Decommissioning ERP. Quality Assurance Audits No. 93-08 and 94-07 (in progress during the inspection) demonstrated that the licensee was performing its annual ERP audits. The audits were reviewed as part of the inspection and appeared to be comprehensive in nature.

During the performance of Quality Assurance Audit 93-08, the auditors noted that the initial accountability was not properly performed during a drill conducted on November 15, 1993, contrary to the requirements of the ERP and the implementing procedures. A problem report was issued to document the concern. The corrective actions must have been effective because this problem was not repeated during the December 7, 1994, emergency exercise.

During the performance of the Quality Assurance Audit 94-07, the auditors discovered that an emergency response implementing procedure was not submitted to the NRC in a timely manner. 10 CFR 50.4(b)(5) states, in part, that licensees are required to submit the emergency plan, changes to the emergency plan, and implementing procedures to the NRC. 10 CFR 50, Appendix E, Emergency Planning and Preparedness for Production and Utilization Facilities, Criterion V, states, in part, that licensees shall submit any changes to the emergency plan or procedures to the Commission within 30 days of such changes. Procedure DPP 5.2.15, "Emergency/Contingency Plan for Chemicals, Petroleum, and Hazardous Waste," was revised to Issue 3 in April 1994; however, this revision of the procedure was not submitted to the NRC within 30 days contrary to the requirements of 10 CFR Part 50. The auditors discovered the error and generated a problem report several days before this inspection. This incident

appeared to be an isolated occurrence since all other implementing procedures were submitted in a timely manner.

This violation of 10 CFR 50.4 and Appendix E is not being cited because the criteria in paragraph VII.B.2 of Appendix C to 10 CFR Part 2 of the NRC's "Rules of Practice" were satisfied. The violation was licensee-identified and appeared to be an isolated occurrence.

Following the emergency preparedness exercise, the licensee held self-critiquing sessions with the exercise players and designated exercise controllers/observers. The self-assessments concluded that the objectives of the exercise scenario were met. Some of the negative, preliminary self-assessment findings included the observations that routine habitability checks were not being performed in a timely manner in the control room, control of recovery teams was marginal, and some key players were left out of several critical discussions.

4.5 Conclusions

Licensee personnel response during the exercise demonstrated their ability to effectively implement the ERP. Additionally, no discrepancies between the requirements of 10 CFR Part 50, Appendix E, and the licensee's emergency response program were identified.

The ERP had been developed, implemented, and maintained to comply with the Technical Specifications requirements. Also, the ERP and implementing procedures appeared comprehensive.

All emergency equipment and supplies were accounted for and were available for immediate use in case of an emergency incident.

The control room properly identified and classified the event. The offsite notifications, personnel accountability, and Technical Support Center staffing were completed within the required time frames. The handling of contaminated, injured individuals and dose estimates were acceptable.

Operating procedures and flow diagrams were not available in either the control room or the Technical Support Center for contractor-controlled equipment. This may affect the licensee's ability to mitigate an event in a timely manner.

The effectiveness of the communications was mixed. Offsite communications were made, the emergency pager system was actuated, and the control room was in constant contact with the Technical Support Center; however, onsite public address announcements were marginal in transferring needed information to plant personnel (the licensee's self-critiquing process also noted a mixed effectiveness in communications).

Quality assurance audits were being performed that met the intent of the Decommissioning Technical Specifications. One violation (non-cited) was

identified involving the failure to submit a change to an ERP implementing procedure to the NRC within the required time frame. The licensee's self-critiquing process following the emergency exercise was determined to be capable of objectively identifying areas in need of correction.

5 FOLLOWUP (92701)

5.1 (Closed) Exercise Weakness 50-267/9015-02: Problems with Approval of Information Conveyed in Initial Notification Messages to Offsite Officials

During the annual emergency exercise in 1990, a weakness was identified involving the licensee's communication process with offsite officials. Verbal information was being communicated during the notification process which had not been approved by the emergency coordinator. During the 1991 emergency exercise, a similar problem was identified by the licensee; therefore, the weakness was left open. (This subject area was not inspected during the 1992 emergency exercise.)

During the 1994 emergency exercise, the inspector noted that the licensee had finally resolved the problem. The Emergency Response Plan implementing procedures were revised to add sign-off blanks for the emergency coordinator on the Notification Form and the Follow-up Notification Form. This provided assurance that preliminary and followup notifications would be approved prior to offsite communications.

5.2 (Closed) Violation 50-267/9118-01: Failure to Maintain in Effect all Aspects of the Emergency Plan

During the 1991 emergency exercise, one violation (with two examples) was identified involving emergency equipment and supplies not being located in their specified storage positions, and for the failure to conduct drills with the county ambulance service as required.

Just prior to the 1994 exercise, the emergency supply cabinets and first aid kits were inspected to ensure that the required supplies were available and were located in their designated positions. All supplies and first aid kits were accounted for and were properly stocked.

The local county ambulance service did not participate in the 1994 emergency exercise; however, the licensee provided emergency response training for the local county ambulance service personnel on September 19, 1994, and October 14, 1994.

5.3 (Closed) Exercise Weakness 50-267/9118-02: Failure to Demonstrate Effective Handling of Contaminated and Injured Victims

Several examples of a failure to demonstrate effective handling of contaminated/injured individuals were identified during the 1991 exercise. The examples included asking an injured person about his condition without

simulating a bodily examination, improper handling of a victim with simulated broken bones, and a failure to properly survey a victim for potential contamination. The licensee responded to the weakness in a letter dated February 7, 1992.

During the 1994 exercise, the NRC inspector witnessed the handling of potentially contaminated and injured personnel. Radiation protection and medical personnel were on the scene in a prompt manner and provided adequate coverage. No problems were identified in this part of the emergency preparedness exercise.

ATTACHMENT

1 PERSONS CONTACTED

1.1 Licensee Personnel

S. Chesnutt, Senior Nuclear Licensing Engineer
M. Fisher, Deputy Program Director
M. Holmes, Project Assurance Manager
J. McCauley, Engineering Manager
G. Reigel, Operations Manager
T. Schleiger, Radiation Protection
D. Seymour, Senior Quality Assurance Engineer
C. Stolley-Faust, Senior Nuclear Training Specialist
D. Warembourg, Director, Decommissioning Program

1.2 Contractor Personnel

B. Dyck, Licensing Engineer, Westinghouse
T. Howard, Project Director, Westinghouse
W. Hug, Site Operations Manager, MK-Ferguson
V. Likar, Technical Services Manager, Westinghouse
R. McGinley, ALARA Supervisor, SEG
D. Sexton, Technical Projects Supervisor, SEG
H. Story, Project Radiation Protection Manager, SEG

The personnel listed above attended the exit meeting. In addition to the personnel listed above, the inspector contacted other personnel during this inspection period.

2 EXIT MEETING

An exit meeting was conducted on December 7, 1994. During this meeting, the inspector reviewed the scope and findings of the report. The licensee did not identify as proprietary any information provided to, or reviewed by, the inspector.