APPENDIX B

U.S. NUCLEAR REGULATORY COMMISSION
RECION IV

NRC Inspection Report: 50-267/88-10 Operating License: DPR-34

Docket: 50-267

Licensee: Public Service Company of Colorado (PSCo)
2420 West 26th Avenue, Suite 15c
Denver, Colorado 80211

Facility Name: Fort St. Vrain Nuclear Generating Station (FSV)

Inspection At: FSV, Platteville, Colorado

Inspection Conducted: April 1-30, 1988

Inspectors: for R. P. Mullikin 6/8/88
R. E. Farrell, Senior Resident Inspector Date

for R. P. Mullikin 6/8/88
P. W. Michaud, Resident Inspector Date

Amarjit Singh 6/5/88
A. Singh, Reactor Inspector, Division of Reactor Safety Date

Approved: for Amarjit Singh 6/6/88
R. E. Ireland, Acting Chief, Plant System Section, Division of Reactor Safety Date

T. F. Westerman 6/7/88
T. F. Westerman, Chief, Reactor Projects Section B, Division of Reactor Projects Date

Inspection Summary

Inspection Conducted April 1-30, 1988 (Report 50-267/88-10)

Areas Inspected: Routine, unannounced inspection of follow up of licensee action on previously identified findings, follow up of Allegation 88-A-01, operational safety verification, fire protection/prevention program, monthly surveillance observation, monthly maintenance observation, radiological protection, and monthly security observation.

Results: Within the areas inspected, one violation was identified (operation without an approved procedure, paragraph 4).

DETAILS

1. Persons Contacted

PSC

D. Alps, Supervisor, Security
*F. Borst, Manager, Nuclear Training
D. Bouadies, Electrical Engineer
*L. Brey, Manager, Nuclear Licensing and Fuels
R. Craun, Manager, Nuclear Site Engineering
*D. Evans, Superintendent, Operations
M. Ferris, Manager, QA Operations
*C. Fuller, Station Manager
G. Geaney, Proto-Power Corporation
J. Gramling, Supervisor, Nuclear Licensing Operations
*M. Holmes, Manager, Nuclear Licensing
J. Johns, Nuclear Licensing
J. Maugeno, Proto-Power Corporation
*P. Moore, Supervisor, QA Technical Support
M. Niehoff, Manager, Nuclear Design
*F. Novachek, Manager, Technical/Administrative Services
*K. Owens, Licensing
*L. Scott, Manager, QA Services
G. Schmalz, Program Manager, Fire Protection
*P. Tomlinson, Manager, QA
R. Walker, Chairman of the Board and CEO
*D. Warembourg, Manager, Nuclear Engineering
*R. Williams Jr., Vice President, Nuclear Operations

The NRC inspectors also contacted other licensee and contractor personnel during the inspection.

*Denotes those attending the exit interview conducted May 4, 1988.

2. Followup of Licensee Action on Previously Identified Findings (92701)

(Closed) Open Item (267/8514-02): Administrative Procedure G-9 and Controlled Work Procedure (CWP) Manual Discrepancies. The licensee has deleted the CWP Manual and replaced it with two procedures; SEMAP11, "Controlled Work Procedures NED Instructions," and SEMAP-12, "CWP Preparer's Instructions." These procedures provide instructions for CWP preparation, review, approval, work control, and closeout activities.

The procedural concerns expressed in this open item were that a nonsafety-related form was allowed to be used for safety-related items, control room and shift supervisor design documents were not required to be updated prior to returning a modified system to service, and a

discrepancy was found in the requirement of independent design verifications. The NRC resident inspectors verified that these concerns have been corrected in Procedures G-9, Issue 8, SEMAP-11, Issue 2, and SEMAP-12, Issue 1. This item is closed.

(Closed) Violation (267/8514-03): Housekeeping and Cleanliness Items Were Not Incorporated Within Work Instructions. The CWP manual did not clearly specify the inclusion of housekeeping and cleanliness requirements during CWP preparation. This manual has been deleted by the licensee and replaced with two procedures as discussed in the previous paragraph. The requirements to include cleanliness/housekeeping instructions is provided in Procedure SEMAP-12, "CWP Preparer's Instructions." No recurrence of this type of violation has been observed. This item is considered closed.

3. Followup of Allegation 4-88-A-0001 (92701)

On January 4, 1988, an allegation was recorded on the NRC resident inspector's telephone answering machine. The alleger expressed a concern with the amount of overtime being worked by the security force personnel at FSV, stating that he thought the NRC might like to know some security force members were working 12- or 16-hour shifts.

The NRC resident inspector obtained information on the amount of overtime being worked and the reason from the licensee's security supervisor. The security force was experiencing a large amount of overtime due to a problem with the normal power supply to the security equipment, which had developed on December 28, 1987. Security equipment was being powered from an interruptible backup source while repairs were being made. A full complement of security personnel was maintained on duty to man compensatory posts in the event the backup power source was lost.

Some security personnel did work 12-hour shifts, and an occasional 16-hour shift, in support of this effort. The power system was repaired on January 22, 1988. Although the licensee normally attempts to minimize the amount of overtime worked by security personnel, the situation was considered important enough to require the overtime on a temporary basis.

The NRC resident inspector interviewed a total of 12 security officers from different crews to determine whether the amount of overtime being worked was excessive in terms of the officers' ability to perform their duties. The security officers interviewed expressed no concern for their own or their fellow officers' ability to perform their assigned duties. Most were pleased to have the opportunity to work the overtime. The NRC resident inspector observed no indications of any impact of overtime on the security force.

In summation, the allegation that some security force personnel were working 12- or 16-hour shifts was substantiated. This was done on a temporary basis, and no impact on the security force was observed or perceived. There is no regulatory basis to limit the number of hours a

security guard may work, as compared to personnel directly performing nuclear safety-related activities. This allegation is closed.

4. Operational Safety Verification (71707)

The NRC resident inspectors reviewed licensee activities to ascertain that the facility is being operated safely and in conformance with regulatory requirements and that the licensee's management control system is effectively discharging its responsibilities for continued safe operation.

The NRC resident inspectors toured the control room on a daily basis during normal working hours and at least twice weekly during backshift hours. The reactor operator and shift supervisor logs and technical specification compliance logs were reviewed daily. The NRC resident inspectors observed proper control room staffing at all times and verified operators were attentive and adhered to approved procedures. Control room instrumentation was observed by the NRC inspectors and the operability of the plant protective system and nuclear instrumentation system were verified by the NRC resident inspectors on each control room tour. Operator awareness and understanding of [illegible]mal or alarm conditions was verified. The NRC resident [illegible]ors reviewed the operations order book, operations deviation report (ODR) log, clearance log, and temporary configuration report (TCR) log to note any out-of-service safety-related systems and to verify compliance with Technical Specification requirements.

The licensee's station manager and superintendent of operations were observed in the control room on a daily basis, with the superintendent of operations frequently in the control room during the day and during startups or special tests.

The NRC resident inspectors verified the operability of a safety-related system on a weekly basis. The decay heat removal system, 480 V essential electrical power system, core support floor vent system, and portions of the reactor plant cooling water system were verified operable by the NRC resident inspectors during this report period. During plant tours, particular attention was paid to components of these systems to verify valve positions, power supplies, and instrumentation were correct for current plant conditions. General plant condition and housekeeping was acceptable. Notable exceptions were the circulating water pump pit, which was flooded during the inspection period, and the helium storage bottle area, which is used as a walk-through. This was discussed with the licensee's management and corrective action has been initiated.

Shift turnovers were observed at least weekly by the NRC resident inspectors. The information flow appeared to be good, with the shift supervisors routinely soliciting comments or concerns from reactor operators, equipment operators, and auxiliary tenders.

The NRC resident inspectors responded to two unusual events during the inspection period. The first of these occurred on April 4, 1988, on the day shift when both NRC resident inspectors were on site. At 2:19 p.m. MDT, the western area of the United States experienced a system disturbance on the electrical grid causing the frequency to vary between 59.6 and 60.99 Hertz. An instantaneous load swing of 200 megawatts was recorded on the load meter at FSV. Within 12 seconds of this frequency and load swing being experienced, the control room operators manually scrammed the reactor as an equipment protection measure. An automatic turbine trip and reactor scram was received immediately after the manual scram.

At 5:10 p.m. MDT on April 4, 1988, the licensee declared a notification of unusual event due to an unplanned release of radioactivity via the plant stack. This release was due to rapid depressurization of the prestressed concrete reactor vessel (PCRV), which opened up a known leakage path in the core support floor inside the PCRV, which is vented to the gaseous radwaste system. During instances of rapid PCRV depressurization, the leakage of helium into the core support floor system has resulted in a gaseous radwaste system relief valve (5 psig setpoint) to lift venting this gas through filters to the plant stack. Circumstances of this depressurization indicated that the relief valve should not have lifted. The licensee expended considerable effort throughout the inspection period troubleshooting this system. The amount of activity released during this event was extremely small, approximately 420 millicuries of noble gas. However, the licensee's agreement with the state of Colorado was that any unplanned release of radioactivity regardless of size be considered an unusual event. The licensee had another unusual event of this nature during the inspection period.

On April 7, 1988, at 5 a.m. MDT the control room operators noted that a circulating water pump had tripped. The reactor was operating at 72 percent power. An equipment operator was dispatched to the circulating water pump pit to investigate. The equipment operator notified the control room that a rubber expansion joint on the discharge of a 160,000 gallon per minute circulating water pump had ruptured and the circulating water pump pit was filling with water. The reactor operators immediately scrammed the reactor and tripped the remaining circulating water pumps. The reactor was cooled down by venting steam to the atmosphere via power operated relief valves and placing the decay heat exchanger in service. The decay heat exchanger is designed and intended to be a heat sink in the event that the main condenser is lost. All systems functioned as designed and the plant was successfully cooled down. The NRC resident inspectors maintained their presence in the control room through much of the day until the plant was cooled down to cold shutdown conditions and later that day escorted the deputy regional administrator and deputy director, Division of Radiation Safety, Region IV, on a tour of the circulating water pump pit, the gaseous radwaste system, and core support floor vent system areas.

The event of April 7, 1988, became an unusual event due to a radioactive release from exactly the same source as the release on April 4, 1988. The cooldown of the reactor following a scram from 72 percent power involved rapid depressurization of the PCRV which caused the liner on the core support floor to open a leakage path for reactor coolant into the core support floor and out through the core support floor vent system to the gaseous radwaste system. The amount of flow should not have, but did cause the system relief valve for the gaseous radwaste system to lift venting the core support floor effluent to the plant stack. This monitored, but unplanned release was classified by the licensee as an unusual event. The amount of release was minimized by the shift supervisor, who immediately vented reactor coolant through filters to the atmosphere to accelerate depressurization of the PCRV from the point where the core support floor began leaking to 160 psia pressure at which point the core support floor vents may be isolated, thus stopping the leakage path.

Subsequent to these unusual events, NRC Region IV and the licensee were notified by the Colorado Department of Health that the dose rates at the exclusion area boundary reported by the licensee were erroneous. The licensee reevaluated the numbers reported and met with the state of Colorado to resolve the discrepancies. The licensee did report to the NRC SRI that the release calculated for the April 4 event had changed. The release originally reported as being 2.8×10^4 microcuries of noble gas was subsequently estimated to be 1.91×10^6 microcuries of noble gas. This higher release resulted in a calculated dose at the exclusionary area boundary of 3.59×10^{-5} rems. This is a very small fraction of Technical Specification limits and not a safety concern. The concern addressed by the licensee and expressed by the state of Colorado was the licensee's ability to calculate the dose rate. PSC also reached an agreement with the state of Colorado on April 21, 1988, that unplanned releases would no longer be required to be classified as an unusual event, unless Technical Specification limits are reached. PSC will continue to report all unplanned releases to the state of Colorado as an advisory item.

A third unplanned release, which was considered reportable but not an unusual event due to the above mentioned agreement between the licensee and the state of Colorado, occurred in the early hours of April 26, 1988. In this case, the unplanned release was the result of liquid nitrogen supplies to the low temperature absorber in the helium purification system being isolated. The helium purification system, which is the reactor coolant cleanup system in this plant, has a low temperature absorber, which is maintained at liquid nitrogen temperatures to remove noble gas, carbon dioxide, and other gaseous contaminants from the pure helium reactor coolant. Should this low temperature absorber lose its liquid nitrogen supply and warm up, the process is reversed and contaminants previously removed from the reactor coolant are released into the output stream, which is supposed to be pure helium. Purified helium is used as a cover gas in parts of reactor support systems, some of which vent to the main condenser. Putting the contaminants, including

radioactive noble gas, into the purified helium stream results in radioactive gas being monitored and detected at the steam jet air ejector on the main condenser. This stream of gas from the steam jet air ejectors to the plant stack resulted in a monitored release.

The NRC resident inspectors interviewed the operations staff and operations management to determine how the liquid nitrogen supply to the low temperature absorber became isolated. The NRC resident inspectors learned that liquid nitrogen tends to rise and fill the highest cavity in the system first rather than the lowest cavity in the system like water. In the liquid nitrogen system supplying the low temperature absorber there is a storage tank on Elevation 11 in the reactor building and a surge tank above this storage tank. The surge tank and storage tank supply liquid nitrogen to the low temperature absorber. When filling the surge tank and storage tank from the outside liquid nitrogen storage tank, the operators allowed the surge tank, which is the highest point in the system, to fill and then close an isolation valve between surge tank and the storage tank to economically fill the storage tank with liquid nitrogen. If the isolation valve between the surge tank and the storage tank is not closed after the surge tank is filled then liquid nitrogen continues to the surge tank and flows out the relief valves on the top of the surge tank, rather than filling the storage tank. The storage tank will eventually fill but not without the loss of a substantial amount of liquid nitrogen out the vents of the surge tank. Closing the isolation valve between the surge tank and the storage tank while filling the storage tank is an economy measure not safety or operations related. After filling the liquid nitrogen storage tank, the isolation valve between the surge tank and the storage tank must be reopened. The liquid nitrogen supply to the low temperature absorber is between the surge tank and this isolation valve that is closed while filling the storage tank. If the valve is left closed, the surge tank will supply the low temperature absorber with liquid nitrogen until the surge tank is empty.

The applicable Technical Specification requires a minimum of 650 gallons of liquid nitrogen be maintained in the storage tank on Elevation 11. The storage tank level is monitored and alarmed in the control room. If the valve between the storage tank and the surge tank is left closed following filling of the storage tank, the storage tank level will not decrease and thus the indications and the specific wording of the Technical Specification for LCO 4.2.12 are met and the operators do not have an indication that anything is wrong. Once the liquid nitrogen supply in the unmonitored and unalarmed nitrogen surge tank is exhausted, the low temperature absorber will start to warm up. The operators, on their rounds, do record the low temperature absorber temperature from a strip chart in the control room. Problems can be identified by increasing temperature of the low temperature absorber, but they were not identified in this case. The low temperature absorber was starved for liquid nitrogen because the Valve HV-2505 on Train A was left closed following the filling of the liquid nitrogen storage tank. Once the supply of liquid nitrogen in the surge tank was exhausted, the temperature of the low temperature absorber rose from a normal -300^{o}F to

approximately -50°F. At this point, virtually all of the noble gas in the low temperature absorber had been released to the purified helium system and the low temperature absorber was giving off carbon dioxide. When the operators detected the increase activity in the steam jet air ejector off-gas, they originally assumed that they were getting some primary coolant down the shaft of a helium circulator due to insufficient buffer-helium supply. The operators increased buffer-helium supply to the helium circulators and saw an increase in the amount of activity coming from the steam jet air ejector. This indicated the source of activity was the purified helium system which feeds the buffer-helium supply system rather than primary coolant coming down the circulator shafts. This caused the operators to check the low temperature absorber and at that point they realized that the temperature was too high for the low temperature absorber to perform its function. The closed valve was subsequently discovered.

The NRC resident inspectors, after interviewing several reactor operators and shift supervisors, determined that this operation involving the closing of either Valve HV-2505 in Purification Train A or Valve HV-2506 in Purification Train B while filling the liquid nitrogen storage tank on reactor building Level 11 is a good operational practice to prevent spilling liquid nitrogen out the roof of the reactor building and onto structures and or equipment that could be damaged. The NRC resident inspectors reviewed System Operating Procedure 23, Issue 31, "Helium Purification System," and System Operating Procedure 25-01, Issue 13, "Nitrogen System." Neither of these procedures addressed the closing of Valves HV-2505 or HV-2506 while filling the liquid nitrogen storage tank. The NRC resident inspectors determined from licensee personnel interviews that the closure of these valves for filling of the storage tank is a practice necessitated by change to the system implemented several years ago when the nitrogen recondensers in the plant were abandoned in place. The lack of instructions in the system operating procedures for a routine activity that must be performed often and which can lead to unplanned releases of radioactivity as happened the morning of April 26, 1988, is an apparent violation of NRC regulations. (267/8810-01)

5. Fire Protection/Prevention Program (64704)

An inspection was conducted on April 4-6, 1988, to evaluate the overall adequacy of the licensee's fire protection program plan submittal dated December 15, 1987, and to determine whether the licensee was implementing the program in conformance with regulatory requirements and industry guides and standards.

The NRC inspectors reviewed the December 15, 1987, submittal, and identified several concerns related to procedures. A review of the plant shutdown procedures, which included walking down several of the manual actions, raised concerns about the adequacy of the procedures. Specifically, components requiring manual actions did not have their locations identified within the procedure, potentially delaying the operator in reaching that component. Also, the valves/components within

the plant were not clearly labeled or identified in all cases, potentially making it difficult for an operator to quickly perform the required actions pending the licensee's corrective action. This is an open item. (267/8810-01)

During this inspection, a concern was raised about the potential routing of electrical power and/or control cables for the electric fire pump through the fire area containing the diesel driven fire pump. This could potentially allow a single fire to disable both fire pumps. This concern was originally raised during the Appendix R inspection 267/83 in 1983. During the present inspection, the licensee was unable to verify if the problem has been corrected or if it still exists. Pending the licensee's evaluation and further NRC review, this is an unresolved item. (267/8810-02)

6. Monthly Surveillance Observation (61726)

The NRC resident inspectors observed the calibration of TI-22122, which is the Loop 2 main steam temperature indication on the auxiliary shutdown panel located in the 480 VAC switchgear room. This work was being done in accordance with a periodic calibration schedule by the results technicians in accordance with Procedure RP-298, Issue 8, "Calibration and Maintenance of Westinghouse Model 252 and KX-241 Indicators." The NRC resident inspectors also observed the calibration of TI-22121, the Loop 1 main steam temperature indication on the same panel. The work was done in accordance with the procedure and the technicians did call for and get a QC inspector to witness the work prior to commencing the calibrations.

The NRC resident inspectors also observed portions of SR-5.2.10.b.3-A/5.10.6.a-A, Issue 3, "Firewater Suppression and Fixed Water Spray Systems Valves Test."

The NRC resident inspectors also reviewed the documentation of ESRH.1.2bcd-M, Issue 8, "Radioactive Liquid Effluent System Instrumentation Functional Test," conducted on April 15-23, 1988.

The NRC resident inspectors observed calibration of Linear Power Range Channel 7 in accordance with Procedure SR 5.4.1.1.4D4/5.4.1.4.2 D4, "Linear Power Range Calibration," Issue 22. This surveillance was observed on April 14 and 25, 1988, following troubleshooting on this instrumentation as described in paragraph 7. The NRC resident inspectors reviewed the surveillance procedure to ensure the proper reviews and approvals were obtained prior to initiating the surveillance. The technicians performing the surveillance were observed to communicate with the reactor operators at all times, ensuring their understanding of the steps to be accomplished and any expected alarms or indications. The NRC resident inspectors observed the performance of the surveillance by two qualified technicians. Surveillance data was independently reviewed and confirmed by the NRC resident inspectors.

On April 22, 1988, the NRC resident inspectors observed the performance of Surveillance Procedure SR 5.3.3-A1X, "Main Steam Electromatic Relief Valve Functional Test." This is an annual test of the power operated relief valves on the main steam lines. The procedure was reviewed by the NRC inspectors to ensure conformance with Technical Specification 5.3.3. The surveillance procedure includes a stroke test and provisions for adjustments if required. No adjustments were necessary. The NRC resident inspectors verified the initial conditions were correct for performance of the surveillance test, and also verified the appropriate administrative reviews and approvals were obtained. Following the stroke test, the NRC resident inspectors verified the valves had reseated properly as evidenced by no observed leakage.

No violations or deviations were identified in the review of this program area.

7. Monthly Maintenance Observation (62703)

The NRC resident inspectors observed the replacement of battery cells 36 and 42 on Station Battery 1A. This work was done in accordance with Station Service Request (SSR) 88502360, which included by reference Procedure MTE-1705, Issue 1, "Removal, Cleaning, and Installation of Battery Cells," and Procedure MPE-1714, Issue 1, Section 5.1, "Battery Equalizing Charges." Section 5.1 is specific to Station Battery 1A. Cells 36 and 42 were being replaced in Station Battery 1A following the failure of these cells to pass the surveillance requirements for specific gravity. The licensee had spare cells in stock. The NRC resident inspectors verified that equipment was properly cleared out and that QC was present while the work was performed. The NRC resident inspectors noted that the SSR called for adding water to all battery cells that were low prior to performing the required equalizing charge. Many cells were at the low water level and the workmen acknowledge this had been identified during the surveillance and that it had not been corrected at that time because it was to be corrected prior to putting an equalizing charge on the new cells.

The NRC resident inspectors monitored the licensee's efforts to determine the cause of problems with Linear Power Range Channel 7. This channel of nuclear instrumentation had caused spurious plant protection system trips, which were not repeatable during troubleshooting. The NRC resident inspectors observed the attempts to determine the cause of the spurious trip signals by the licensee's most experienced and knowledgeable technicians and engineers. These activities were performed under SSR 88502156 and Procedure RP-262, "Maintenance of GA Power Channels." The NRC resident inspectors verified the work was being done in accordance with these procedures and that QC coverage was provided. The troubleshooting effort found some loose connectors on female pins of the amplifier card. These pins were recrimped to provide the appropriate contact surface and the instrumentation was then calibrated as described

in paragraph 6. The SSR was held open in order to confirm the repairs were effective and to allow immediate troubleshooting should any problems reappear. At the end of this reporting period no further problems with Linear Power Range Channel 7 had been observed.

On April 20, 1988, the NRC resident inspectors observed maintenance activities performed on Valve PV-21243, Loop 1 emergency feedwater to circulator pelton drives pressure control valve. This valve normally reduces emergency feedwater header pressure from 3000 psig to 1750 psig.

The NRC resident inspectors reviewed Nonconformance Report (NCR) 88-088, which identified a problem with the valve being unable to maintain the required downstream pressure. SSR 88501703 provided instructions to disassemble, repair, and reassemble PV-21243 in accordance with Procedure MP-1005, "Masoneilan 20,000 Series Single Ported Valves." The NRC resident inspectors observed portions of the actual work and verified the proper administrative approvals and clearances were obtained prior to commencing work. The replacement seat ring and seat gasket were verified to be the correct part numbers and were properly certified materials for this application. The was evidence of erosion of the valve body material on the seat ring surface. The licensee decided the erosion was not excessive and rather than using weld build up and machining, chose to utilize a sealant material to fill the eroded areas. The NRC resident inspectors reviewed the licensee's evaluation of this sealant for use in this application. The sealant was evaluated in licensee document GSAR2009, dated August 14, 1987, which approves its use in helium circulator applications; specifically for flanges and scored surfaces. Based upon the sealant's acceptability for use in these applications, it was approved for use on PV-21243. The NRC resident inspectors concluded the evaluation was acceptable to document the sealant's suitability for this application. Post-maintenance calibration and testing of the valve's pneumatic actuator was witnessed by the NRC resident inspectors. These activities were performed in accordance with Procedure RP-90D, "Calibration and Maintenance of Annin Domotor Actuators and Positioners." The NRC resident inspectors verified QC hold points were established and observed where appropriate.

On April 21, 1988, the NRC resident inspectors observed work on Valve V-45882, which was leaking around the stem packing. This is a hand operated firewater valve on Level 5 in the turbine building. Licensee workers were tightening the packing in accordance with Procedure MAP-6, Attachment A, "Valve Packing Adjustment List," when the valve packing gland broke. This necessitated isolating the valve to stop water leaking in the area of the boiler feed pumps and instrument air compressor sieve. The valve required to be closed to isolate Valve V-45882 also isolated firewater to the 480 VAC switchgear room and boiler feed pump areas. Technical Specifications require that if these rooms do not have a

firewater supply reactor power cannot be taken above 2 percent power. The licensee was able to manufacture a new packing gland restoring the valve to service prior to plant startup.

No violations or deviations were identified in the review of this program area.

8. Radiological Protection (71709)

The NRC resident inspectors verified that required area surveys of exposure rates are made and posted at entrances to radiation areas and in other appropriate areas. The NRC resident inspectors observed health physics professionals on duty on all shifts including the backshift. The NRC resident inspectors observed the health physics technicians checking area radiation monitors, air samplers, and doing area surveys for radioactive contamination.

The NRC resident inspectors observed that when workers are required to enter areas where radiation exposure is probable or contamination possible the health physics technicians are present and available to provide assistance.

No violations or deviations were identified in the review of this program area.

9. Monthly Security Observation (71881)

The NRC resident inspectors verified that there was a lead security officer (LSO) on duty authorized by the facility security plan to direct security activities onsite for each shift. The LSO did not have duties that would interfere with the direction of security activities.

The NRC resident inspectors verified, randomly and on the backshift, that the minimum number of armed guards required by the facility's security plan were present. Search equipment, including the X-ray machine, metal detector, and explosive detector, were operational or a 100 percent hands on search was being utilized.

The protected area barrier was surveyed by the NRC resident inspectors. The barrier was properly maintained and was not compromised by erosion, openings in the fence fabric, or walls, or proximity of vehicles, crates or other objects that could be used to scale the barrier. The NRC resident inspectors observed the vital area barriers were well maintained and not compromised by obvious breaches or weaknesses. The NRC resident inspectors observed that persons granted access to the site are badged indicating whether they had unescorted or escorted access authorization.

No violations or deviations were identified in the review of this program area.

10. Exit Meeting (30703)

An exit meeting was conducted on May 4, 1988, attended by those identified in paragraph 1. At this time the NRC resident inspectors reviewed the scope and findings of the inspection.