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SUBJECT: Responds to NRC 980601 ltr re violations noted in insp rept 50-397/98-07.Corrective actions:plan was established & implemented to reduce potential for airborne radioactivity & surveys were conducted of adjacent areas outside wetwell.

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Docket No. 50-397

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Gentlemen:

Subject: **WNP-2 OPERATING LICENSE NPF-21**
NRC INSPECTION REPORT 98-07, RESPONSE TO NOTICE OF VIOLATION

Reference: Letter dated June 1, 1998, B Murray (NRC) to JV Parrish (SS), "NRC Inspection Report 50-397/98-07"

The Supply System's response to the Notice of Violation, pursuant to the provisions of Section 2.201, Title 10, Code of Federal Regulations, is enclosed as Attachment A.

Should you have any questions or desire additional information regarding this matter, please call Mr. PJ Inserra at (509)377-4147.

Respectfully,

P. R. Bemis (Mail Drop PE23)
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IE01

INSPECTION REPORT 50-397/98-07 RESPONSE TO NOTICE OF VIOLATION

Restatement of Violation

Technical Specification 5.4.1.a states, in part, "Written procedures shall be established, implemented, and maintained covering the applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978." Regulatory Guide 1.33, Appendix A, Section 7.e.2, recommends procedures for radiation surveys.

Procedure SWP-RPP-01 entitled, "Radiation Protection Program," Revision 1, Section 5.13, states, in part, "Surveys shall be adequate to evaluate the concentrations or quantities of radioactive materials, and the potential radiological hazards that could be present."

Contrary to the above, the licensee failed to make surveys to adequately evaluate the concentrations or quantities of radioactive materials, and the potential radiological hazards that could be present. Specifically:

1. On April 22, 1998, the inspector determined that work was performed on the horizontal stiffener in the reactor wetwell without performing surveys to adequately evaluate the concentrations or quantities of radioactive materials, and the potential radiological hazards that could be present. As a result, several individuals received unplanned intakes of radioactive materials.

2. The inspector identified that airborne radiation surveys taken in the wetwell on April 23, 1998, failed to adequately evaluate the concentrations or quantities of radioactive materials due to calculational errors.

3. On May 5, 1998, decontamination of a device used for nondestructive testing of the reactor vessel was conducted without performing proper surveys to adequately evaluate the extent of the concentrations or quantities of radioactive materials and the potential radiological hazards that could be present. As a result, four individuals received unplanned intakes of radioactive materials.

This is a Severity Level IV violation (Supplement IV)(50-397/98007-02).

Response to Violation

The Supply System accepts the violation.

The Supply System agrees with the staff's characterization of examples one, two, and three for the violation given in the Report Details section of Inspection Report 50-397/98-07.

Reason for Violation (example one)

The root cause was determined to be a work practice issue. Specifically, the Radiation Work Permit (RWP) was written based on the assumption that all technicians would have the necessary knowledge to apply requirements appropriately and was not designed to be used by less practiced health physics personnel. Although many indicators were available, the potential for airborne radioactivity and the concomitant potential for personnel to receive internal exposure was not identified or addressed prior to the start of work in the wetwell. In addition, even though high levels of contamination were recognized by the ALARA planners, the potential for airborne radioactivity was not identified in the RWP, and when high levels of contamination were identified the RWP did not require appropriate respiratory protection actions.

While the ALARA planners were aware of changed work conditions from previous refueling outages, this knowledge was not translated into appropriate written instructions to assess and control work in the field to minimize the potential of internal exposure.

Contributing to the problem, workers did not follow instructions in the RWP that required a health physics prejob briefing prior to work being performed in the area. As a result, workers unknowingly entered an area that had not been surveyed to determine radiological conditions. Surveys taken after the personnel contamination event indicated the area to be highly contaminated.

Corrective Actions Taken and Results Achieved (example one)

A plan was established and implemented to reduce the potential for airborne radioactivity. Laborers entered the wetwell and misted down wetwell surface areas prior to decontamination of the horizontal stiffener and associated wall areas. The horizontal stiffener was then decontaminated, effectively reducing the contamination levels by a factor of five to ten, depending on location.

Subsequent to the decontamination, a misting hose was placed at shoulder height to keep the wall surface and horizontal stiffener wet to minimize the potential for further airborne radioactivity.

Surveys were conducted of adjacent areas outside the wetwell to ensure contamination had not been spread to clean areas. Re-survey of the previously contaminated area at the access point

to the wetwell indicated a moderate increase in contamination levels and was subsequently decontaminated. All personnel who had accessed the wetwell during that shift were contacted and given whole body counts.

Those workers who did not follow the RWP guidance regarding prejob briefings were counseled.

Interim guidance was established through a Health Physics night order to ensure jobs with a high potential for airborne radioactivity, and consequently internal dose, are controlled through an RWP specific for that job. This night order will remain in effect until permanent health physics instructions and procedures are in place.

Corrective Steps to be Taken to Avoid Further Violations (example one)

A health physics instruction will be developed by August 31, 1998 to document job specific instructions on RWPs or work orders and improve the guidance available to personnel to recognize and respond to the potential for changing radiological conditions.

In addition, procedural guidance will be reviewed and strengthened by August 31, 1998 for evaluation and response to potential airborne radioactivity areas.

Date of Full Compliance (example one)

Full compliance was achieved on April 22, 1998 when the wetwell was evacuated, radiological airborne survey performed, area posted as an airborne radioactivity area and whole body counts conducted on workers found contaminated.

Reason for Violation (example two)

Chemistry did not have a ready reference, instruction, or chemistry procedure for entering correction factors into DAC calculations for large air volume filters. A contributing cause was unclear communications between radiation protection and chemistry on application of correction factors for large filters that resulted in the chemists applying the wrong correction factor.

Corrective Actions Taken and Results Achieved (example two)

The "Requested Radioisotopic Analysis Form WP-323" was revised to add a section to identify correction factor to be used in DAC calculations involving large air volume filters. A review was also conducted of all air samples taken in the wetwell during the outage to determine the impact of chemistry DAC calculation error. The review identified no failures to post an area

nor was an area inappropriately posted as postings were based on field rather than chemistry calculations.

Shop meetings were held with chemistry personnel to discuss the issue and to reinforce the correct calculation methodology.

Corrective Steps to be Taken to Avoid Further Violations (example two)

Lessons learned will be included in the industry and in-house section of Chemistry Technician Continuing Training to be completed by October 31, 1998. In addition, a procedure review will be performed to ensure that when field analysis of low volume air samples indicate slightly less than 0.3 DAC, a chemistry analysis will be performed.

Date of Full Compliance (example two)

Full compliance was achieved on June 10, 1998 when the "Requested Radioisotopic Analysis Form WP-323" was revised to correct the calculational error.

Reason for Violation (example three)

The root cause was determined to be a work practice issue. In addition, the RWP established special instructions for contamination control, however, the instructions were treated as optional requirements. It is management's expectation that when "should" is used in procedures or RWPs that the actions will be taken. In practice, the use of "should" in RWPs has been treated as requirements to be implemented at the individual technician's discretion. As a result, management expectations have been inconsistently applied. Had the special instructions in the RWP been implemented, the potential for internal dose would have been minimized.

Contributing to the error was poor communications between health physics personnel and other groups resulting in the movement of the carousel before it had been fully surveyed. In addition, the initial surveys performed by the health physics technician were inadequate for the expected radiological conditions. The individual used an RO-2A instrument to check contamination on wet wipes. The meter survey would not have shown contamination due to the background radiation levels in the area. In addition, the wet material should have been dried prior to being surveyed to minimize the beta shielding effect of the water. Had proper surveys been taken of the carousel, it is probable that levels of contamination greater than that specified in the RWP would have been recognized.

In addition, health physics personnel were insufficiently sensitive to the need to evacuate workers from the refueling floor when the continuous air monitor alarmed.

Corrective Actions Taken and Results Achieved (example three)

A plan was established and executed to have laborers mist down and decontaminate the carousel. A specific RWP was established for this activity and the effort reduced the contamination levels by a factor of twenty.

Other personnel who were on the floor during the shift frisked out of the area with a automatic frisker. Personnel who alarmed the frisker were given whole body counts. All individuals with positive results were assessed with several followup whole body counts and each was determined to have received less than five mrem.

A performance expectation for health physics technicians responsible for control points was distributed and discussed with technicians and supervisors. This included emphasis on technician and worker knowledge of conditions, communications, frequency of surveys, and recognition and awareness of potential conditions. Management expectations regarding compliance to RWP requirements were reemphasized.

As an interim measure during the 1998 outage, RWP requirements were reviewed for other work areas where a potential for high levels of contamination, and subsequently, a potential for airborne radioactivity could exist. This review was performed to ensure RWP requirements were appropriate for activities. Results were communicated to the plant general manager and the outage manager prior to drain down of the reactor cavity to ensure appropriate radiological controls were in place.

The health physics contract technician was coached regarding proper survey techniques and his responsibility to maintain control of work activities to ensure radiological safety.

Corrective Steps to be Taken to Avoid Further Violations (example three)

Example one corrective actions apply to this example. In addition, standard responses to off-normal radiological conditions will be developed and presented during Health Physics Technician Continuing Training to be completed by October 31, 1998.

Date of Full Compliance (example three)

Full compliance was achieved on May 5, 1998 when air samples were taken, additional contamination surveys performed and whole body counts conducted.