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July 8, 1982

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Mr. W. C. Seidle, Chief
Reactor Project Branch #2
U. S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

SUBJECT: Arkansas Nuclear One - Unit 1
Docket No. 50-313
License No. DPR-51
Response to Inspection Report
50-313/82-13
(File: 0232)

Gentlemen:

We have reviewed the Items of Noncompliance included in the subject report. Attached is our response to the "Notice of Violation" included in this report.

Very truly yours,

Donald A. Rueter
for John R. Marshall
Manager, Licensing

JRM:GAC:sc
MH

Attachment

cc: Mr. Richard C. DeYoung, Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. Norman M. Haller, Director
Office of Management & Program Analysis
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

NOTICE OF VIOLATION

Based on the results of an NRC inspection conducted during the period of June 1-3, 1982, and in accordance with the NRC Enforcement Policy (10 CFR Part 2, Appendix C), 47 FR 9987, dated March 9, 1982, the following violations were identified:

1. Failure to Perform an Adequate Survey for Beta Radiation

   10 CFR 20.201(a) defines (survey) as "an evaluation of the radiation hazards incident to the... presence of radioactive materials or other sources of radiation under a specific set of conditions. When appropriate, such evaluation includes... measurements of levels of radiation... present." 10 CFR 20.201(b) requires that the licensee shall make such surveys as necessary to comply with the other regulations of 10 CFR 20.

   Contrary to the above, the licensee failed to adequately measure and evaluate the radiation hazard associated with beta radiation prior to maintenance personnel entering the lower primary manway area of the Unit 1 "A" steam generator on May 31, 1982. Specifically, the radiation survey performed in the lower primary manway area determined that the magnitude of the beta radiation field near the "A" steam generator lower tubesheet was greater than that which could be measured using the available survey instrument (the dose-rate indication went offscale high on the RO-2A beta-gamma survey instrument). However, the licensee made no further effort to measure or evaluate the beta radiation hazard prior to permitting access to this area by maintenance personnel.

   This is a Severity Level IV violation. (Supplement IV.D) (313/8213-01)

RESPONSE

After the Health Physics Superintendent was informed of the offscale beta reading, a TLD was placed at the tubesheet area to determine dose rates prior to allowing subsequent entries into the lower primary manway area of Unit 1 "A" Steam Generator. The beta dose was determined to be 17.7 rad/hr from the TLD. It should be noted that all personnel who entered the steam generator wore multiple TLD's which were processed after each entry into the Reactor Building.

In order to prevent further occurrences, Procedure 1622.026, "Health Physics Requirements for Steam Generator Entries" was reviewed and approved by the Plant Safety Committee on June 23, 1982. This procedure requires that beta surveys be performed prior to allowing personnel entry into the steam generators. In addition, the HP Technician who obtained

the offscale reading, along with other Health Physics personnel, have been instructed that when such a reading is obtained, the detector should be moved away from the radiation source until an onscale reading is obtained and that a TLD should be used to measure the radiation dose where the offscale reading was obtained. It has also been reemphasized to Health Physics personnel that personnel entries into steam generators or other areas shall not be permitted until the radiological hazards of those areas have been determined.

HP Technicians will be instructed in the use and requirements of Procedure 1622.026, "Health Physics Requirements for Steam Generator Entries" by July 19, 1982.

2. ALARA Committee Review Not Performed as Required

Unit 1 Technical Specification 6.8.1 requires that written procedures shall be established, implemented, and maintained covering... a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33...

Station Administrative Procedure 1000.33, "ANO ALARA Manual," has been established in accordance with this Technical Specification. Procedure 1000.33 requires, in part, that an ALARA Committee, with specified membership, review the work package associated with a job that is estimated to involve over 10 man-rem total exposure. This review is to be a Category III review, which entails a higher degree of preplanning than either a Category I or Category II review, involves a formal ALARA Committee meeting, and requires an additional ALARA checklist (Form 1000.33C) be used as an agenda for the review and to serve as formal documentation of the completed Category III review.

Contrary to the above, the licensee did not complete a Category III ALARA review as evidenced by the failure to complete a Form 1000.33C ALARA checklist and as substantiated by discussions with licensee representatives for the Unit 1 "A" steam generator repair work during the period May 27 through June 2, 1982. The estimated total exposure for this activity was approximately 50 man-rem, which was based upon measured radiation levels inside the steam generators and the actual scope of the work involving plugging 10 steam generator tubes. However, the licensee's preliminary estimate for total exposure, based upon estimated lower radiation levels and plugging one steam generator tube, was 2.5 man-rem, and only a Category II ALARA review was performed. This review was not revised to a Category III review to reflect the increased radiation levels that were measured and the increased scope of the work to be performed.

This is a Severity Level IV violation. (Supplement IV.D) (313/8213-02)

RESPONSE

The current ALARA and Radiation Work Permit (RWP) procedures do not clearly address the situation of when to terminate a RWP and require a new ALARA review due to an increased man-rem estimate for increased radiation levels or increased job scope. When the violation was identified, the repair work had been completed; therefore, no immediate corrective action could be taken.

To prevent further occurrences, ALARA and RWP procedural changes are being made to require the following:

(1) Notification of the Health Physics Superintendent and ALARA Committee Chairman of major scope changes or radiation level changes.

(2) Daily notification of the Health Physics Superintendent and ALARA Committee Chairman of the man-rem status of RWP's where dose rates exceed 1 rem/hr or of jobs using 5 man-rem/day.

(3) Termination of the RWP and a new ALARA review when the accumulated man-rem of a job exceeds 150% of the limit for the ALARA category of the RWP.

The procedure changes will be implemented and Health Physics personnel will be trained in their use by August 15, 1982.