



**Entergy
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U. S. Nuclear Regulatory Commission
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Subject: Arkansas Nuclear One - Units 1 and 2
Docket Nos. 50-513 & 50-368
License Nos. DPR-51 & NFP-6
Amended Response to Inspection Report
50-313/90-42; 50-368/90-42

Gentlemen:

By letter dated January 21, 1991 (OCAN019106), Entergy Operations submitted the ANO response to the violation identified as a result of an inadequate review of the safety analysis for conducting resin transfer cask dewatering activities (Violation 313/9030-02). Also, by letter dated April 12, 1991 (OCAN049103) certain corrective actions were revised. The purpose of this letter is to provide a revised violation response which describes a change to the Radiological Safety Evaluation program. A vertical line has been placed in the right margin opposite the affected sections to denote the changes.

Based on the experience gained through implementing the Radiological Safety Evaluation (RSE) program over the past year, the threshold for which activities require an RSE has been changed. Previously, any activity involving the processing of radioactive materials outside the Controlled Access Area received an RSE. The change in the RSE program involves adding a screening process to identify those activities with the potential for adverse radiological consequences at the site exclusion area boundary. These activities will receive a Radiological Safety Evaluation.

This change was discussed with Mr. Ward Smith and Mr. Steve Campbell, of NRC Region IV, during a telephone conversation on March 18, 1992.

Very truly yours,

James J. Fisicaro
James J. Fisicaro
Director, Licensing

JJF/GRA/nmg

Attachment
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PDR ADDCK 05000313
G PDR

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Notice of Violation

During an NRC inspection conducted October 17 through December 7, 1990, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990) (Enforcement Policy), the violation is listed below:

Failure to perform an Adequate Safety Review.

Unit 1 Technical Specification 6.5.1.6.d requires that the Plant Safety Committee shall be responsible for "review of all proposed changes or modifications to plant systems or equipment that affect nuclear safety."

Contrary to the above, an inadequate review of the safety analysis for conducting resin transfer cask dewatering activities was performed. The review of the dewatering process did not evaluate the consequences of performing the activity in the nonradiologically controlled area (train bay) in which it was performed.

There is a Severity Level IV violation. (Supplement I)
(313/9030-02)

Response to Violation 313/9030-02

(1) Reason for the violation

NOTE: For purposes of clarity in this response the term "Controlled Access Area" is defined as both unit's auxiliary building, reactor building and, for previously approved processing activities, the Low Level Radwaste Building.

ANO agrees that a violation occurred regarding an inadequate review of the safety analysis for conducting resin transfer cask dewatering activities. However, the root cause evaluation has determined that personnel involved in determining the procedural controls for performing the dewatering process did not adequately document the consequences of performing radiological activities outside of the Controlled Access Area. The corrective actions identified in sections 2 and 3 of this response will ensure that future Plant Safety Committee (PSC) reviews will include a consideration of radiological consequences of activities performed outside of the Controlled Access Area.

NRC Inspection Report 50-313; 368/84-19, included a concern that an unmonitored release might occur during resin processing in the train bay and activities associated with the process conducted in the Radwaste Building. In response to open item 313/8419-02; 368/8419-02 issued in August 1984, Revision 5 to 1612.003, "Radiological Work Permits" was initiated. This revision included Attachment 2 entitled "Radiological Evaluation Checklist for Work Outside Controlled Access Which Has The Potential for Release of Radioactive Substances". The attachment contained specific radiological precautions and monitoring requirements relating to the conduct of radiological activities outside of the Controlled Access Areas including resin transfer in the train bay. This revision was reviewed by the PSC on September 5, 1984 and became effective September 6, 1984.

Open item 313/8419-02; 368/8419-02 was closed in NRC Inspection Report 50-313; 368/84-33 (November 1984) based on Revision 5 to procedure 1612.003.

In April 1989, Revision 15 to 1612.003, "Radiological Work Permits" was initiated. In addition to other items, this revision was designed to change Attachment 2 to provide for increased utilization of the attachment to allow its use in a more generic sense. This change involved the removal of the specific steps pertaining to resin transfer. The revision was reviewed by the PSC on April 13, 1989, and became effective April 14, 1989.

Although revision 5 to 1612.003 satisfied the open item from NRC Inspection Report 84-19 concerning the resin processing activities in the train bay and the potential for an unmonitored release to the environment, in retrospect, the process was inadequate from the standpoint of providing an evaluation of the consequences of performing that activity outside of the Radiological Controlled Access Area (RCA). Revision 15 further compounded the inadequacy. Additionally, although all procedurally required reviews and evaluations were conducted; the question concerning the radiological consequences of the resin processing activity in an area outside the Controlled Access Area was not addressed.

(2) Corrective steps taken and results achieved:

As a result of the pressurization of the resin fill head and the subsequent loss of contamination control in Unit One and Two Turbine and Auxiliary Buildings resulting from this incident, all activities involving radioactive material processing outside of the Controlled Access Area were halted until the consequence of performing these activities outside of controlled access areas was reviewed.

An interim measure was implemented which required that a complete Radiological Safety Evaluation be performed for any activity involving the processing of radioactive materials outside of the Controlled Access Area. This did not apply to transportation of properly packaged radioactive material or storage of radioactive material in approved storage locations. The Radiological Safety Evaluation addresses various aspects of the activity such as: 1) the known or anticipated radioactivity associated with the process; 2) potential monitored and unmonitored release paths, 3) applicable regulatory requirements; and 4) the radiological impact of a release. A conclusion with appropriate recommendations is made based on the evaluation. At the completion of the evaluation, it is reviewed by the Superintendent, Nuclear Chemistry and Superintendent, Radwaste and approved by the Manager, Radiation Protection/Radwaste. The evaluation then receives a PSC review for comment and approval. Applicable requirements from the PSC-approved evaluation are incorporated into the appropriate Radiological Work Permits (RWPs) and/or procedures or work plans.

This interim program was successfully applied to the contaminated scaffolding processing task, the primary ion exchange resin processing task, and the steam generator cleaning waste processing task.

(3) Corrective steps that will be taken to prevent recurrence:

Procedure 1000.131 (Formerly 1062.004), "10CFR50.59 Review Program" was revised to include an action by the 50.59 Reviewer to recognize, when conducting any activity involving processing of radioactive material outside the Controlled Access Area, that a review is required which adequately addresses the potential radiological consequences of performing the activity in question. The 50.59 Reviewer is directed to the proper organization within ANO for conducting the evaluation.

The interim Radiological Safety Evaluation program was formalized and incorporated into the appropriate plant procedure on March 28, 1991. Based on the experience gained through implementing the RSE program over the past year, the procedure has been revised. Procedure 1012.015, "Radiological Safety Evaluations," has been revised to include a screening review to identify those activities which have the potential for adverse radiological consequences at the site exclusion area boundary. These activities will receive an RSE which will be reviewed and approved by the PSC. Any activity involving the processing of radioactive materials outside of the Controlled Access Area (excluding those related to the storage and/or transportation of radioactive material) will receive a documented review for impact at the site exclusion area boundary; however, only those activities which could potentially exceed technical specification or 10CFR20 limits would receive an RSE. This change will focus the review resources on activities with potentially adverse consequences.

The Radiological Work Permit (RWP) currently controls work related to radiological or contaminated material outside the RCA. In addition, Health Physics implementing procedure 1612.003, "Radiological Work Permits" was revised on February 22, 1991, to require that the Radiological Safety Evaluation be reviewed and its recommendations incorporated prior to activating any RWP which allows processing of radioactive material outside of the Radiological Controlled Access Area.

Administrative Procedure 1000.006, "Procedure Control" was revised to ensure that a procedure and/or work plan will be required for any activity involving the processing of radioactive material in areas outside of the Controlled Access Area.

A review of existing work plans and procedures (excluding those related to the storage and/or transportation of radioactive material) which involved the processing of radioactive materials outside of the Controlled Access Area was coordinated to determine if a Radiological Safety Evaluation was required. For procedures with unfavorable review results, the procedure was revised to restrict it to areas inside the Controlled Access Area or additional radiological controls were invoked to minimize the consequences. These procedures were not utilized to process radioactive material outside controlled access until appropriate controls were implemented.

Training was provided to radiation protection personnel required to utilize the applicable health physics procedure changes.

4) Date of full compliance:

Full compliance has been achieved through the implementation of the interim administrative controls governing the performance of Radiological Safety Evaluations for activities involving the processing of radioactive materials outside the Controlled Access Area. The remaining procedural controls were implemented by April 30, 1991. Other existing procedures found to need corrections were revised by September 30, 1991.