APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Inspection Report: 50-313/94-18
50-368/94-18

Licenses: DPR-51
NPF-6

Licensee: Entergy Operations, Inc.
Route 3, Box 137G
Russellville, Arkansas

Facility Name: Arkansas Nuclear One, Units 1 and 2

Inspection At: Russellville, Arkansas

Inspection Conducted: September 19-23, 1994

Inspectors: Arthur D. McQueen, Emergency Preparedness Analyst, Region IV
Michael Cillis, Senior Radiation Specialist, Region IV
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Accompanying Personnel: Larry L. Sherfey, Contractor, Battelle Laboratories

Approved: Blaine Murray 10/19/94
Blaine Murray, Chief, Reactor Inspection Branch Date

Inspection Summary (Units 1 and 2):

Areas Inspected: Routine, announced inspection of the licensee's performance and capabilities during the full play exercise of the emergency plan and implementing procedures. The inspection team observed activities in the Control Room (simulator), Technical Support Center, Operational Support Center, and the Emergency Operations Facility.

Results:

- The Control Room staff responded well and properly implemented emergency operating procedures (Section 3.1).

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- Command and control in the Control Room Simulator was a strength. Events were rapidly recognized, classified, and effectively mitigated (Section 3.1).

- Information provided by the Control Room to the Emergency Director was accurate and included appropriate priorities (Section 3.1).

- An exercise weakness was identified involving the failure of the Control Room to make a timely Alert notification to the state of Arkansas (Section 3.1).

- The Technical Support Center demonstrated excellent command and control and responded appropriately to technical support tasks (Section 4.1).

- Technical assessments and planning of accident mitigation activities performed by the Technical Support Center staff were generally effective (Section 4.1)

- A weakness was identified involving the lack of a proper core damage assessment procedure (Section 4.1).

- The Technical Support Center staff formulated proactive contingency plans to mitigate the accident (Section 4.1).

- The Operations Support Center was staffed and activated promptly. Performance by the Operations Support Center staff was good (Section 5.1).

- The Operations Support Center Director conducted frequent and concise briefings. Plant conditions were effectively communicated to the Operations Support Center staff (Section 5.1).

- An Inspection Followup Item was identified in the Operations Support Center regarding unclear emergency procedures (Section 5.1).

- A concern was identified involving a need to improve the plant announcement system in localized areas of the plant (Section 5.1).

- Radiological planning and briefings of Operations Support Center emergency response teams and radio communications with these teams needs improvement (Section 5.1).

- The overall effectiveness of the staff in the Emergency Operations Facility was good (Section 6.1).

- Effective command and control was demonstrated in the Emergency Operations Facility (Section 6.1).

- The exercise scenario was appropriate to demonstrate proper implementation of the licensee's emergency response capabilities (Section 7.1).

- The licensee's exercise self-critique demonstrated that the licensee was capable of identifying and properly characterizing their own exercise performance (Section 8.1).

Summary of Inspection Findings:

- Exercise Weakness 313/9227-01; 368/9227-01 remains open for review during the next routine emergency preparedness inspection (Section 9.1).
- Exercise Weakness 313/9418-01; 368/9227-01 was opened (Section 3.1).
- Exercise Weakness 313/9418-02; 368/9227-01 was opened (Section 4.1).
- Inspection Followup Item 313/9418-03; 368/9227-01 was opened (Section 5.1).

Attachment:

- Persons Contacted and Exit Meeting

DETAILS

1 PLANT STATUS

The licensee was operating both units at Arkansas Nuclear One at full power on September 21, 1994, the day of this emergency preparedness exercise.

2 PROGRAM AREAS INSPECTED (82301)

The licensee's annual emergency preparedness exercise began at about 7 a.m. on September 21, 1994. The exercise included full participation by state and county response organizations and was evaluated by the Federal Emergency Management Agency (FEMA). The exercise scenario was run using the Control Room simulator in a dynamic mode.

The exercise scenario began with the plant operating at 100 percent power. Shift turnover began in the Control Room at about 7:15 a.m., and the operators were made aware of a 0.05 percent failed fuel indication. The failed fuel indication had been rising steadily since early morning and the chemistry group had been directed to follow up the earlier sample with a current analysis. At about 7:30 a.m., the chemistry analysis indicated that failed fuel had reached 0.1 percent and was still rising. This resulted in the Shift Superintendent declaring a Notification of Unusual Event. The Control Room crew made proper notifications to the Arkansas Department of Health and the NRC. The crew initiated a controlled shutdown in accordance with procedures. The crew also noted that failed fuel was still rising gradually. At about 9 a.m., the failed fuel iodine monitor indicated failed fuel in excess of 1 percent. This prompted the declaration of an Alert.

At about 10 a.m., a primary-to-secondary leak occurred in the "A" Steam Generator. At about 10:15, the radwaste area monitor lost communications with the radiological dose assessment computer system. At about 10:45 a.m., the primary to secondary leak had increased to approximately 70 gallons (gpm) per minute. This resulted in a situation for declaration of a Site Area Emergency based on reactor coolant system (RCS) leakage greater than normal makeup capacity (50 gpm) with greater than 1 percent failed fuel conditions. At about this time, the Emergency Operations Facility Director declared a General Emergency based on loss of or challenge to all three fission product barriers. Two events contributing to the exercise conditions were the crash of a National Guard Training jet into the 161 KV transmission lines leading to a complete loss of off-site power and a contaminated injured individual in the Turbine Building.

The team observed activation of the four emergency response facilities and their staffs respond to emergency conditions until the exercise was terminated at about 1:39 p.m. The inspectors observed the event classification process, the announcements for activation of the emergency response organization, activation of the computerized notification system, and notification of the event to the state of Arkansas. Inspectors also observed the staffing and activation of the various emergency response facilities.

The inspectors identified various concerns during the course of the exercise; however, none were of significance of a deficiency as defined in 10 CFR 50.54(s) (2)(ii). The identified concerns were characterized as a weakness requiring corrective action or as areas recommended for improvement. An exercise weakness is a finding that a licensee's demonstrated level of preparedness could have precluded effective implementation of the emergency plan in the event of an actual emergency. It is a finding that requires licensee corrective action. Other observations such as improvement items are documented which did not have a significant negative impact on overall performance during the exercise but should be evaluated and corrected as appropriate by the licensee.

3 CONTROL ROOM (82301-03.02)

The inspection team observed and evaluated the Control Room (simulator) staff as they performed tasks in response to the exercise. These tasks included detection and classification of events, analysis of plant conditions, implementation of corrective actions, notification of off-site authorities, and adherence to the emergency plan and implementing procedures.

3.1 Discussion

The Control Room shift staff was effective in their efforts to mitigate the events of the exercise. The staff correctly implemented procedures, maintained logs of the events, communications and actions, and maintained communications in an effective, professional manner both internally and with other emergency response facilities. The staff did a good job of looking ahead in order to optimize their mitigation strategies. Staff briefings were held at regular intervals and following event updates.

The Shift Superintendent declared a Notification of Unusual Event (NUE) at 7:37 a.m.. The required NUE notifications to state and local authorities were completed at 7:43 a.m. The NRC was notified of the NUE at approximately 8 a.m. An Alert was declared at 9:03 a.m. Both classifications were made in a timely manner. The Control Room crew failed to complete notification of state and local authorities within the required 15 minutes following the declaration of the Alert. The Arkansas Nuclear One Emergency Plan, Section E, 1.0 (Notification), states that "Initial notification is made to the State within fifteen (15) minutes after declaring an emergency." An Alert was declared at 9:03 a.m. by the Control Room clock. However, the notification message to state and local authorities was not placed into the FAX machine until 9:37 a.m. and receipt of the verification message was received 9:39 a.m., 30 minutes after the event classification. The failure to make timely notification was identified as an exercise weakness (Weakness 313/9418-01; 368/9418-01). This weakness was also identified by the licensee during their self-critique.

Several other observations were noted as improvement items:

- The Notification Communicator in the Control Room indicated a lack of training in that the individual required a great deal of assistance in

the performance of his duties throughout the exercise. The Shift Engineer assisted the Notification Communicator in making the notification of the NUE, activating the Computerized Notification System, and in making the Alert notification.

- In accordance with Emergency Plan Implementing Procedure (EPIP), 1903.030, "Evacuation," the Control Room posted Form 1903.030A, Onsite Continuous Accountability Log, on the Control Room door. However, entries in this log were not made by many of the crew when leaving the Control Room during the exercise.

- The status board in the Control Room was small (approximately 1 foot x 1 foot) and displays only information as to which emergency facility has control of the event. The board was set on a counter on the back wall of the Control Room. While the board was maintained at all times, its size, content, and posting location limits its effectiveness.

- One of the simulator fax machine's internal clock was set 1 hour behind actual clock time. The other FAX machine was set correctly. This was also observed in the Emergency Operations Facility, with the internal clock on the Emergency Operations Facility's FAX set 1 hour slow. This created confusion for the inspectors in attempting to verify message time requirements. The inspectors verified by personal observation during the exercise that the initial NUE declaration notification did meet the 15 minute time requirement; however, the Control Room notification was FAX time stamped 14 minutes prior to the declaration of NUE. These inconsistencies in FAX time stamps was noted as an improvement item.

The Shift Superintendent was effective in directing plant operations through use of the operating and emergency procedures, keeping plant personnel informed of event status, and prioritizing the operators' response. Command and control in the Control Room was a strength.

Communications in the Control Room were generally effective, although several instances of informal communications were noted. The inspector did not observe any instance of miscommunications due to the observed informalities.

3.2 Conclusions

An exercise weakness was identified involving the failure to make a timely Alert notification to the state of Arkansas. The Control Room staff responded well and properly utilized operating procedures. Command and control was a noted strength. Events were rapidly recognized, classified, and effectively mitigated. Information provided to the Emergency Director was accurate and appropriately prioritized.

4 TECHNICAL SUPPORT CENTER (82301-03.03)

The inspectors observed and evaluated the Technical Support Center staff as they performed tasks in response to the exercise scenario. These tasks included detection and classification of events; notification of Federal, State, and local response agencies; analysis of plant conditions; formulation of corrective action plans; briefing of repair teams; and protective action decisionmaking and implementation.

4.1 Discussion

The Technical Support Center was activated within 30 minutes of the Alert declaration. The Technical Support Center staff appropriately filled all positions in a timely manner. The Technical Support Center Director appropriately followed procedures by assuming Emergency Direction and Control from the Control Room Shift Supervisor until staffing in the Emergency Operations Facility was completed.

Communications in the Technical Support Center was good. The staff maintained current status, priorities tasking, and team tracking boards. The status board communicator assisted the Technical Support Center Director in making changes in plant status and significant events. The operations manager maintained constant verbal communication with the control room and emphasized plant status and proposed contingency plans. Plant announcements completed from the actual Control Room were audible; however, the inspectors identified poor audible announcements from the simulator as an item for improvement.

Excellent interactions were noted between the Technical Support Center Managers and the Technical Support Center Director in establishing proactive contingency plans and priorities. The Technical Support Center Managers formulated solutions to equipment problems encountered during the scenario so as to minimize off-site releases. Some examples included utilizing the spent fuel pool room filtration system to filter unmonitored radioactive releases and placing the turbine driven emergency feedwater pump in manual to preclude inadvertent exhausting of radioactive steam from the pump turbine.

A problem was identified regarding the evaluation of fuel damage. The Technical Support Center staff calculated fuel damage approximately 10 times greater than what the simulator determined. The Technical Support Center staff estimated fuel failures as high as 32 percent while the simulator calculated 4 percent fuel damage. The inspectors noted that Procedure 1302.022, "Core Damage Assessment," did not provide qualitative guidance to determine the appropriate release fractions. The core damage assessment group should have entered both an upper and a nominal release fraction for scenario comparison. The staff only entered the nominal release fraction, which produced larger fuel damage estimates. The staff used core damage assessment for deciding appropriate emergency action levels and protective action requirements at the Site Area Emergency and General Emergency classification levels. The lack of an appropriate core damage assessment procedure is considered an exercise weakness (Weakness 313/9418-02; 368/9418-02). The licensee's self-critique also identified this item as a weakness.

The Technical Support Center staff conservatively classified the steam generator tube rupture with failed fuel cladding and a potential loss of containment as a general emergency when the emergency feedwater pump turbine steam supply valve failed to close. The classification was upgraded directly from an Alert to a General Emergency.

The Technical Support Center staff appropriately established initial accountability within 30 minutes after the Technical Support Center Director ordered a plant evacuation. Cardreader histories indicated that the Technical Support Center staff promptly located all missing personnel. The Technical Support Center Director ordered an evacuation of the generation support building and selected a plant evacuation route that was not in the plume's pathway.

The Technical Support Center had no controlled environment envelope for habitability; rather, the Technical Support Center staff activated friskers and contamination air monitors as required by procedure. However, the inspector noted personnel entering from outside the Technical Support Center not utilizing the frisker. This is considered an improvement item.

The Technical Support Center staff performed area surveys in the Technical Support Center on a routine basis and generated the required survey maps. These maps indicated that radiation and contamination levels confirmed that neither respiratory equipment nor dosimetry was required.

4.2 Conclusions

An exercise weakness was identified involving the lack of a proper procedure for determining core damage. The Technical Support Center demonstrated excellent command and control, and responded appropriately to their technical support tasks during the exercise. Technical assessments and planning of accident mitigation activities were effective. The Technical Support Center staff formulated proactive contingency plans to mitigate the accident.

5 OPERATIONS SUPPORT CENTER (82301-03.05)

The inspectors observed and evaluated the performance of the Operations Support Center staff as they accomplished tasks in response to the exercise to determine whether the Operations Support Center would be effective in providing emergency support to operations.

5.1 Discussion

The Operations Support Center was manned and activated in approximately 20 minutes. Personnel logged in on the sign-in board and assumed their stations in a timely manner. Upon assuming control, the Operations Support Center Director immediately briefed his staff on plant conditions. The Director's briefings were comprehensive and conducted on a frequent basis.

The Operations Support Center Director and the supporting staff were knowledgeable of their duties and responsibilities. The staff was kept informed of changing conditions in the plant. Communications between the

Operations Support Center, Technical Support Center, and the Control Room was effective. The staff and the inspectors had difficulty hearing the plant announcement system of changing plant conditions.

The inspectors made the following observations during the exercise:

- Procedure 1905.001, "Emergency Radiological Controls," Section 6.5 states in part: "IF significant release of radioactivity occurs such that an individual would receive a dose in excess of 2.5 mRem in any one hour, or 100 mRem in any seven consecutive days, THEN this area shall be designated as a radiologically controlled area and Dosimetry shall be worn in effected areas."

- The inspector noted that medical personnel responding to a simulated injury in the Turbine Building were not equipped with dosimetry even though general area dose rates ranging from less than 100 to 800 mRem/hr were detected. Nor was the Turbine Building posted as a radiologically controlled area as indicated by this section. The inspectors were informed that posting of the Turbine Building as a high radiation area had been simulated; however, the list of simulated activities in the drill scenario did not indicate that posting of radiation/airborne/ contaminated areas would be simulated.

- The inspectors were subsequently informed that Procedure 1903.023 excluded the need for medical personnel to obtain dosimetry in response to an emergency situation. Licensee emergency procedures allow emergency medical team personnel to respond to radiological emergencies without first collecting dosimetry. Procedure 1903.023, Section 8.4.4, states: "Prompt medical attention shall take precedence over HP procedures when an individual is seriously injured." All members of the emergency medical team had TLDs and a Radiation Protection Technician had also been dispatched with the team. The Technician was equipped with a survey meter. Emergency medical response personnel are required to debrief upon completion of the rescue operation.

  The inspectors noted that Procedure 1903.023 was not referenced in Procedure 1905.001. The inspectors also noted that several other procedures involving search and rescue teams were not clear or cross referenced. These procedures were:

  1012.019, "Radiological Work Permits"

  1903.023, "Personnel Emergency"

  1903.033, "Protective Action Guidelines for Rescue/Repair & Damage Control Teams"

  1903.042, "Duties of the Emergency Medical Team"

  1905.001, "Emergency Radiological Controls"

Several personnel responding to a simulated injury appeared to be confused due to the simulation or lack of radiological postings and from the poor planning and briefings they had received. One individual remained in the simulated high radiation area for approximately 20 minutes. The individual did not provide any assistance during the exercise and did not perform any rescue functions for this period of time.

The inspector noted that it would not be prudent to deploy rescue teams and emergency medical personnel into a rapidly changing environment without proper dosimetry and preplanning and preparations. For example, the radiation survey field teams never observed any significant radiation or contamination problems even though failed fuel levels of greater than 30 percent were reported during the exercise. This was significantly different than that indicated by the scenario. The radiological consequences that would result from 32 percent failed fuel as compared to the modeled 4 percent failed fueled indicated by the scenario would have been far greater than was modeled in the exercise scenario. As it turned out, the 32 percent failed fuel reported was in error; however, the question of whether to deploy emergency response teams into a 32 percent environment as compared to a 4 percent failed fuel environment without better briefings and better planning needs appropriate review. Licensee procedures do not clearly address this concern. This concern is considered an Inspection Followup Item (IFI 313/9418-03; 368/9418-03).

- In IE Bulletin 79-18, "Audibility Problems Encountered on Evacuation of Personnel From High-Noise Areas," the NRC identified concerns related to the inability to hear alarm system evacuation announcements made over public address systems. The licensee's response to the bulletin, dated October 10, 1979, stated that there were several locations within the plant where neither the evacuation alarm system nor the announcement system could be acknowledged. In the response, the licensee committed to: Install hardware changes to assure audible or visual signals could be observed in all areas where practical. The licensee also committed to implement administrative measures in areas where adequate audible/visual signals could not be acknowledged. The licensee expected to have the hardware changes and administrative measures implemented by February 1982.

  Inadequacies were still noted with the Control Room announcement system during this exercise. The evacuation alarm was not audible in the Operations Support Center and a subsequent siren alarm could not be heard in certain areas of the Turbine Building during the exercise. Plant personnel informed the inspectors that this has been an ongoing problem and that actions to improve the system have been under evaluation. The licensee stated that it was normally difficult to hear the announcement system in many areas of the plant such as the Turbine Building, Auxiliary Building, Containment Building, and the Operations Support Center. This was identified as an improvement item.

- Difficulties were encountered using the radio system to communicate with field teams. The inspectors noted in many instances during the exercise that radio messages in the Turbine Building and the Penthouse were not audible. In several instances, the emergency field teams had to use the telephone system to communicate with the radio dispatcher during the exercise. The problems appeared to be the result of high noise problems and dead zones within the affected areas. This was identified as an improvement item.

- Planning and briefing of emergency response field teams generally were poor. For example, use of protective clothing/respiratory equipment were not recommended for use for entries into the auxiliary building elevation 404-foot penthouse even though high airborne concentrations and high contamination levels could have been expected because of a steam leak. Subsequent levels of 10 mRad smearable were encountered and airborne concentrations of greater than 0.3 derived air concentration (DAC) were determined to be present.

  Briefings of field teams in many instances were not audible to the emergency response team players, evaluators, controllers, and inspectors. Several emergency response field teams did not receive any briefing regarding postulated radiological conditions prior to being deployed from the Operations Support Center. Some of the briefings were conducted in the corridor adjacent to the Operations Support Center. It appeared that the reason for conducting briefings in the corridor was to maintain the noise level within the Operations Support Center as low as possible. This was identified as an improvement item.

- Habitability surveys of the Operations Support Center were not performed for an approximate 2-hour period because of the simulated loss of off-site power. Portable equipment for obtaining habitability surveys (e.g., air samples) were available; but, were not utilized.

5.2 Conclusions

The Operations Support Center was staffed and activated promptly. The Operations Support Center Director conducted frequent and concise briefings. Plant conditions were effectively communicated to the Operations Support Center staff. A concern regarding unclear emergency procedures, issuance of dosimetry, and the failure to post postulated high radiation areas was identified as an improvement item. A concern involving a need to improve the plant announcement system in localized areas of the plant was also identified.

6 EMERGENCY OPERATIONS FACILITY (82301 - 03.04 & 03.07)

The inspection team observed and evaluated the Emergency Operations Facility staff as they performed tasks in response to the exercise scenario. These tasks included the activation of the Emergency Operations Facility, staffing, change of command and control, accident assessment, classification, off-site dose assessment, notifications, interaction with State officials, and protective action decisionmaking.

6.1 Discussion

The Emergency Operations Facility was declared operational and assumed direction and control responsibilities from the Technical Support Center at 10:02 a.m. This was approximately 1 hour after the declaration of the Alert (9:03 a.m.). The transfer of emergency direction and control from the Technical Support Center was effectively done once the Emergency Operations Facility Director had confirmed that essential Emergency Operations Facility staff were ready to accept duties from the Technical Support Center. The transfer of command and control was clearly announced to all personnel in the Emergency Operations Facility.

Habitability was confirmed and continuously monitored throughout the exercise. Verification of emergency ventilation and diesel generator capability was performed. However, the emergency diesel generator did not pass the operability test and was declared inoperable at 10:49 a.m. A repair team was dispatched real time to correct the problem, and the generator was returned to service at 11:37 a.m. During this time period, the plant experienced a loss of off-site power; however, in that the Emergency Operations Facility has redundant back-up power, all functions necessary for emergency support activities remained available.

The Emergency Operations Facility Director briefed the Technical Operations Control Director of the Arkansas Department of Health shortly after her arrival at the Emergency Operations Facility. The State was kept continuously abreast of changing plant conditions and the basis for escalation to the General Emergency classification at 10:22 a.m. The State was involved in the discussions on both the initial protective action recommendations issued with the General Emergency declaration and the subsequent Protective Action Recommendation issued as a result of changing plant conditions. The State kept the Emergency Operations Facility informed on actions being implemented off site in response to the Protective Action Recommendations. Personnel in the Emergency Operations Facility were kept aware of both on-site and off-site activities by frequent and timely briefings from the Emergency Operations Facility Director, Managers, and the State of Arkansas representative in the Emergency Operations Facility. On several occasions during these briefings; however, the noise level in the Emergency Operations Facility was such that the Emergency Operations Facility Director had to ask that personnel stop their individual conversations and give their full attention to the briefings and announcements.

Dose assessment activities were initiated as part of the activation of the Emergency Operations Facility. Following discussions with dose assessment counterparts in the Control Room, the Emergency Operations Facility dose assessment staff assumed responsibility for dose assessment to relieve the Control Room of that duty. The dose assessment staff used proper procedures for the initial and subsequent dose projections. Dose projections were modified appropriately using off-site field monitoring team results as well as when changes in meteorological and plant conditions occurred.

Both state and licensee field monitoring teams were utilized to locate and define the plume. However, the state and licensee field monitoring teams were

being controlled out two separate rooms. The positioning of State and licensee field monitoring teams controlled in separate rooms independently of each other could lead to a duplication of field monitoring teams efforts. Additionally, the State field monitoring teams results were provided to a State representative, collocated in the dose assessment room, who then provided the results to the Dose Assessment Supervisor. The Dose Assessment Supervisor provided field monitoring teams data to the Radiological/ Environmental Assessment Manager in the Emergency Operations Facility. Coordination of State and licensee field monitoring teams data appeared to occur at the Dose Assessment Supervisor level. If the State and licensee field monitoring teams' results contradict each other and could be rectified prior to dissemination to decisionmakers as opposed to having to reconcile that information when it is made known to the field monitoring team controllers, then dose assessment activities could be more effective.

6.2 Conclusions

The overall effectiveness of the staff in the Emergency Operations Facility was good. Effective leadership was demonstrated by the Emergency Operations Facility in its command and control responsibilities.

7 SCENARIO AND EXERCISE CONDUCT (82301)

The inspection team made observations during the exercise to assess the challenge and realism of the scenario and to evaluate the conduct of the exercise.

7.1 Discussion

The inspectors attended a licensee briefing on September 20, 1994, and participated in the discussion of emergency response actions expected during various phases of the scenario.

The inspectors found that the scenario did not provide for the evaluation of a previously identified exercise weakness; therefore, it remains open for review during the next routine emergency preparedness inspection at the site (Section 9.1). The scenario contained sufficient challenges to exercise appropriate response activities to demonstrate effective implementation of the exercise objectives. It permitted the inspectors to observe classification of emergency events; notification of the emergency response organization; staffing and activation of the emergency response facilities; making required notifications to the State, counties, and NRC; emergency evacuation; formulation and communication of protective action recommendations; dose assessment and projection; and management of off-site radiological monitoring teams.

7.2 Conclusions

The exercise scenario was appropriate to demonstrate proper implementation of the licensee's emergency response capabilities.

8 LICENSEE SELF-CRITIQUE (82301-03.02.b.12)

8.1 Discussion

The inspectors observed the licensee's exercise self-critique held on September 23, 1994, to determine whether the licensee properly identified and characterized weak or deficient areas in need of corrective action.

The licensee critique process included input by exercise players, controllers, and evaluators. The licensee identified two exercise weaknesses which were also identified by the NRC inspection team. One exercise weaknesses involved a late notification of the Alert to the State of Arkansas. The other weakness involved problems fuel damage calculations (Section 4.1).

The licensee also identified three significant improvement items, 36 other items for improvement, and seven strengths. Several of the improvement items and observations were similar to those identified by the NRC inspection team.

8.2 Conclusions

The licensee's critique demonstrated that the licensee was capable of identifying and properly characterizing their own weaknesses.

9 FOLLOWUP ON PREVIOUS INSPECTION FINDINGS

9.1 (Open) Exercise Weakness (313/9227-01; 368/9227-01): Failure of Control Room Crews to Demonstrate Dose Assessment in a Timely Manner.

The Control Room did not conduct any dose assessment activities during this exercise; therefore, this item will be reviewed in a routine inspection involving simulator scenario walkthroughs scheduled for October 1994.

ATTACHMENT

1 PERSONS CONTACTED

1.1 Licensee Personnel

*B. Bement, Training and Emergency Planning Manager
*D. Boyd, Nuclear Safety and Licensing Specialist
*J. Crawford, Emergency Planner
*B. Day, Unit 1 Systems Engineering Manager
B. Eaton, Unit 2 Plant Manager
*R. Edington, Unit 1 Plant Manager
R. Fowler, Emergency Planner
T. Green, Emergency Planning Coordinator
*R. Gresham, Emergency Planning Supervisor
*R. Henry, Project Manager
*S. Humbaugh, Shift Superintendent, Unit 1 Operations
*R. King, Supervisor, Licensing (Acting Director)
D. Mims, Licensing Director
*S. Pyle, Nuclear Safety and Licensing Specialist
*J. Yelverton, Vice President, Arkansas Nuclear One Operations
*D. Young, Emergency Planner

The inspectors also held discussions with and observed the actions of other station and corporate personnel.

*Denotes those present at the exit interview.

2 EXIT MEETING

An exit meeting was conducted on September 23, 1994. During this meeting, the inspectors reviewed the scope and findings of the report. The licensee did not identify as proprietary any of the materials provided to, or reviewed by, the inspection team during the inspection.