

UNION ELECTRIC COMPANY

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ST. LOUIS, MISSOURI

April 6, 1984

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VICE PRESIDENT

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Dear Mr. Paperiello:

ULNRC-788

INSPECTION REPORT NUMBER 50-483/84-02
CALLAWAY PLANT, UNIT 1
EMERGENCY PREPAREDNESS APPRAISAL

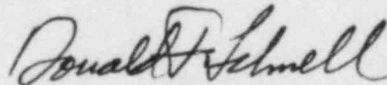
Reference: March 6, 1984 letter from C. J. Paperiello to D. F. Schnell

- Attachments: 1) Open Items Which Have Been Closed
2) Open Items Which Remain Open
3) Improvement Items

The referenced letter transmitted findings from the appraisal of onsite emergency preparedness at Callaway Plant conducted between January 9 and 20, 1984. The attachments provide responses to these NRC findings. We have separated our responses into 3 groups: Attachment 1 contains our responses to open items which were closed during the NRC reappraisal conducted during the week of March 19; Attachment 2 contains our responses to those items which remained open as of March 23; and Attachment 3 contains our responses to suggested improvement items.

If there are any questions, please contact us.

Very truly yours,



Donald F. Schnell

DS/dh

cc: B. L. Forney, NRC Region III
NRC Resident Inspectors, Callaway Plant (2)
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ATTACHMENT 1

LISTING OF, AND UNION ELECTRIC RESPONSE TO,
EMERGENCY PREPAREDNESS APPRAISAL OPEN ITEMS
WHICH HAVE BEEN CLOSED

The following is a list of Emergency Preparedness Open Items which were re-examined and which we understand were closed by the Emergency Preparedness Appraisal Inspection Team during the week of March 19, 1984. The numbering system used corresponds to the Emergency Preparedness Appraisal Inspection Report No. 50-483/84-02 cover letter (C. J. Paperiello to D. F. Schnell, March 6, 1984).

1. Provide QA auditors with additional guidance to enable auditors to assess the adequacy of the emergency preparedness training program. This must be completed prior to exceeding 5 percent power. (Section 1.5) (483/84-02-01)

Response: Revision 1 (March 12, 1984) to the Operations Phase QA Audit Plan revised Audit Topic 12 "Emergency Planning" to increase the level of attention given to the emergency preparedness training/retraining program and Emergency Organization member proficiency.

3. Provisions for ensuring that the Emergency Operations Facility (EOF) is operational within about one hour after declaration of any Site Area or General Emergency must be developed and implemented prior to exceeding 5 percent power. (Section 2.1) (483/84-02-03)

Response: Revision 7 to the Radiological Emergency Response Plan (RERP), Section 5.2 "Union Electric Emergency Organization" provides for an Interim EOF Organization which can be activated within about one hour after the declaration of any Site Area or General Emergency. Revision 1 to EIP-ZZ-C0010 (in effect on March 22, 1984), provides procedural guidance to Interim EOF Organization members.

4. The inclusion, into the offsite support agency annual training program, of a review of Emergency Action Levels (EALs); the completion of initial training of these organizations; and the final assignment of responsibility for their annual retraining must be completed prior to exceeding 5 percent power. (Section 3.1) (483/84-02-04)

Response: The offsite support agency training required by Callaway Plant Training Manual Section 16 "Emergency Preparedness" has been completed. The course subject matter includes EALs. The Manual Section establishes responsibilities for ensuring periodic retraining.

5. The General Employee Training Program for all on-site personnel who would have unescorted access must be implemented such that all personnel are trained in their emergency response. This must be completed prior to fuel load. (Section 3.2) (483/84-02-05)

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(Continued)

Response: General Employee Training in accordance with Callaway Plant Training Manual Section 1 has been completed. Emergency response is described in this training.

6. Retraining on the current revision to the Radiological Emergency Response Plan (RERP) and any resulting procedural revisions, to all those members of the emergency organization whose duties and responsibilities have been impacted by the issuance of revisions beyond Revision 5A and related procedure revisions, must be completed prior to fuel load. (Section 3.2) (483/84-02-06)

Response: Retraining has been accomplished and is documented in Training Department records. All future retraining will be conducted in accordance with Callaway Plant Training Manual Section 16. This ensures that training is to the latest revision of the RERP.

8. The Technical Support Center (TSC) must be completed as follows: full operability of its emergency ventilation system; full operability, including calibration, of its airborne radioiodine and area radiation monitors; installation and full operability of radio equipment associated with applicant and State field monitoring activities; inclusion of a copy of approved Technical Specifications; and inclusion of and training on approved operating procedures for the TSC's diesel generator, emergency ventilation system, and bus transfer equipment. These items must be completed prior to initial criticality. (Section 4.1.1.2) (483/84-02-08)

Response: The following activities have been accomplished:

- a) The TSC emergency ventilation system has been made operational. Surveillance Test Procedure ESP-GF-03012 has been completed for this system.
- b) The Area Radiation Monitor has been made operational and is included in the Callaway Plant Calibration Program by virtue of a Repeating Work Order. Generic Test Procedures CS-06CS04C, CS-06CS03E and CS-06CS12A have been completed for this system. Procedure HTP-ZZ-04251 describes monitor operation during emergencies.
- c) We are working with the supplier of the airborne radioiodine monitor to correct operational problems. In the absence of the permanent monitor, EIP-ZZ-00240 and EIP-ZZ-00210 specify the necessary radiological monitoring which must be implemented if the monitor is not operational.
- d) Radio equipment has been installed and used in several drills including the Field Exercise of March 21, 1984. Procedure EIP-ZZ-00223 has been revised to reflect the capabilities of this system to contact monitoring teams in the field.

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(Continued)

- e) Current Technical Specifications (draft) are on file in the TSC. The TSC is included on the distribution list for approved Technical Specifications when they become available.
 - f) Procedures OTS-ZZ-00002 and OTA-ZZ-00002 have been approved for the TSC diesel generator operation. These procedures describe bus transfer. Training on these procedures is proceeding for plant equipment operators. Responsible emergency preparedness personnel have been trained on these procedures.
 - g) Procedure OTN-ZZ-00001 has been approved for the TSC ventilation system. Training on this procedure is proceeding for plant equipment operators. Responsible emergency preparedness personnel have been trained on this procedure.
9. The EOF must be completed as follows: full operability, including calibration, of its airborne radioiodine and area radiation monitors; installation and full operability of radio equipment associated with applicant and State field monitoring activities; inclusion of copies of the Final Safety Analysis Report (FSAR), approved Technical Specifications, Missouri Nuclear Accident Plan, and the four counties' emergency plans and procedures; and inclusion of and training on approved operating procedures for the EOF's diesel generator, emergency ventilation system, and bus transfer equipment. These items must be completed prior to initial criticality. (Section 4.1.1.4) (483/84-02-09)

Response: The following activities have been accomplished:

- a) The area radiation monitor has been made operational and is included in the Callaway Plant Calibration Program by virtue of a Repeating Work Order. Generic Test Procedures CS-06CS04C, CS-06CS03E, and CS-06CS12A have been completed for this system. Procedure HTP-ZZ-04251 describes monitor operation during emergencies.
- b) We are working with the supplier of the airborne radioiodine monitor to correct operational problems. In the absence of the permanent monitor, EIP-ZZ-C0010 and EIP-ZZ-00210 specify the necessary radiological monitoring which must be implemented if the monitor is not operational.
- c) UE radio equipment has been installed and used in several drills including the Field Exercise. Procedure EIP-ZZ-00223 has been revised to reflect the capabilities of this system to contact monitoring teams in the field.
- d) State radio equipment has been installed and used during one drill and the Field Exercise.
- e) Copies of the FSAR, Missouri Nuclear Accident Plan, and the emergency plan and procedures of each affected county have been placed in the EOF.

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(Continued)

- f) Current Technical Specifications (draft) are on file in the EOF. The EOF is included on the distribution list for approved Technical Specifications when they are available.
 - g) Procedures OTS-ZZ-00003 and OTA-ZZ-00003 have been approved for the EOF diesel generator operation. These procedures describe bus transfer. Training on these procedures is proceeding for plant equipment operators. Responsible emergency preparedness personnel have been trained on these procedures.
 - h) Procedure OTN-ZZ-00002 has been approved for the EOF ventilation system. Training on this procedure is proceeding for plant equipment operators. Responsible emergency preparedness personnel have been trained on this procedure.
10. Acceptance testing, in-house calibration, and operator training on the Post-Accident Sampling System (PASS) for in-line and grab sample collection and analysis of reactor coolant and containment air samples must be completed prior to exceeding 5 percent power. (Section 4.1.1.6) (483/84-02-10).

Response: The PASS is operational. The manufacturer's Site Acceptance Test has been completed as has Preop Testing Procedure CS-03SJ02. Procedures CTP-ZZ-08000 and CTP-ZZ-08008 are approved for PASS. Chemistry Technician training and qualification has been completed. Demonstration of PASS was performed by chemistry personnel during the week of March 19, 1984.

11. Installation, acceptance testing, and operator training on equipment used for the collection and analyses of post-accident gaseous, particulate, and radioiodine effluent samples must be completed prior to fuel load. (Section 4.1.1.7) (483/84-02-11).

Response: EIP-ZZ-00210 describes post accident sampling. Rad/Chem Technicians are trained in the use of this procedure. The system is installed but acceptance testing is not complete. This testing will be complete in accordance with Technical Specification requirements.

13. The on-site medical treatment/first aid facility must be supplied and fully operable prior to fuel load. (Section 4.1.2.2) (483/84-02-13)

Response: The First Aid facility located at the Health Physics Access Facility has been stocked with equipment appropriate to the level of first aid authorized at Callaway. This includes an examination table, examination light, backboard, burn and trauma kit, splints, neck braces, air splints, various bandages, miscellaneous supplies, and a telephone.

14. The Joint Public Information Center (JPIC), including its briefing aids and installed telephone and telecopy equipment must be

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(Continued)

completed prior to exceeding 5 percent power. (Section 4.1.4)
(483/84-02-14)

Response: The JPIC is fully operational. Briefing aids, telephones and telecopy equipment are available. JPIC capabilities were demonstrated during the Field Exercise.

15. The Control Room, reassembly area, and ambulance kits must be placed in the locations designated in the RERP prior to fuel load. (Section 4.2.1.1) (483/84-02-15)

Response: All emergency kits are in place. The contents of emergency kits are specified in EIP-ZZ-A0020. Surveillance of emergency kits is specified in HSP-ZZ-00013.

16. The containment high range radiation monitoring system, liquid effluent monitoring system, area and process monitors, and any other radiation monitors utilized for accident assessment must achieve fully operational status, including fully operational Control Room readout capability and related training of Control Room personnel. These items must be completed prior to fuel load. (Section 4.2.1.2) (483/84-02-16)

Response: Containment High Range, liquid effluent monitoring and process monitoring system instrumentation indicators have been installed in the Control Room and Control Room personnel trained in their use. These systems are not yet fully operational. However, they will be made operational in accordance with Technical Specification requirements; for non-Technical Specification-related systems, monitoring systems will be operational prior to reaching the mode in which they are intended for use.

Area radiation monitors are operational and have been tested in accordance with Generic Test Procedures CS-06CS04C, CS-06CS03E and CS-06CS12A.

17. The non-radiation process monitoring systems used for emergency classification or accident assessment, including Control Room readouts, must be completed prior to fuel load. (Section 4.2.1.3) (483/84-02-17)

Response: Instrumentation indicators have been installed in the Control Room and Control Room personnel have been trained in their use. Monitors listed in RERP Table 4-3 will be made operational in accordance with Technical Specification requirements, or for non-Technical Specification-related systems in the mode where those systems would normally be utilized. A complete listing of instrumentation, including identification of the mode in which it will be operable, was made available to the Emergency Preparedness Appraisal Inspection Team the week of March 19, 1984.

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18. The installation of self-contained breathing apparatus (SCBAs) and their storage cases in the fire brigade area, the completion of the respirator cleaning facility, and the completion of the respiratory issuing storage unit must be accomplished prior to fuel load. (Section 4.2.2.1) (483/84-02-18)

Response: SCBA's and their storage cases have been installed in the fire brigade area. The respirator cleaning facility is located in a trailer and is fully operational. It is located at its permanent site, near the Radwaste Building. The respiratory storage and issue facility is located at the HP Access and is operational.

19. The installation and operational testing of all required dedicated communications equipment in the Control Room, and completion of related training with regard to its usage must be completed prior to fuel load. (Section 4.2.3) (483/84-02-19)

Response: All Control Room communications equipment is installed and is operational. Related training is complete. Procedure EIP-ZZ-A0023 specifies the periodic testing program for communications equipment.

21. The elimination of discrepancies in EALs listed in the RERP and EIP-ZZ-00101 must be completed prior to fuel load. (Section 5.1) (483/84-02-21)

Response: Revision 2 to EIP-ZZ-00101 has eliminated all such discrepancies. A separate review has been performed to verify the basis for each EAL classification.

22. Completion of an Emergency Implementing Procedure (EIP), or revision of an existing EIP, addressing activation and operation of the backup EOF, including transfer of responsibilities during the period between nearsite EOF evacuation and the backup EOF reaching operational status, must be completed prior to fuel load. (Section 5.3) (483/84-02-22)

Response: EIP-ZZ-C0015 describes activation and operation of the Backup EOF and the transfer of responsibilities.

23. EIP-ZZ-00102 must be corrected to include the proper interpretation of the initial notification time requirements prior to fuel load. (Section 5.4.1) (483/84-02-23)

Response: Revision 2 to EIP-ZZ-00102 provides clarification of time requirements for initial notification.

24. Installation and acceptance testing of the Radioactive Release Information System (RRIS) terminal in the Rad/Chem Foreman's office in the Operational Support Center (OSC) must be completed prior to exceeding 5 percent power. (Section 5.4.2) (483/84-02-24)

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Response: The RRIS terminal is installed in the Rad/Chem Foreman's Office. Acceptance testing for the terminal has been completed.

26. EIP-ZZ-01211 and -02211 must be revised to include provisions for all anticipated accident situations, including the following: isotopic mix data for various accident types; monitor correction factors; contingency data for use when radiation monitoring systems are inoperative or off-scale; and dose rate factors for loss of coolant accidents. This must be completed prior to initial criticality. (Section 5.4.2) (483/84-02-26)

Response: Revision 3 to EIP-ZZ-01211 describes dose calculations for all anticipated accident situations including isotopic mix data for various accident types, monitor correction factors and dose rate factors for LOCA's. EIP-ZZ-01212 describes contingency calculations for use when radiation monitor systems are inoperative or off-scale.

27. EIP-ZZ-00212 must be revised to conform with current guidance regarding the initiating condition for the protective action decision-making process and must provide procedural guidance regarding the content of an advisory message, should dose projections not exceed Protective Action Guides (PAGs). This must be completed prior to fuel load. (Section 5.4.2) (483/84-02-27)

Response: Revision 2 of EIP-ZZ-00212 provides additional guidance regarding protective action decision-making and content of protective action recommendation messages.

28. The development, implementation, and training on procedures for collecting and handling post-accident liquid effluent samples must be completed prior to exceeding 5 percent power. (Section 5.4.2.6) (483/84-02-28)

Response: Procedure EIP-ZZ-00210 describes the handling of liquid effluent samples in a post-accident situation. Rad/Chem Technicians have been trained in this procedure.

29. The emergency radiation work permit program must be completed prior to exceeding 5 percent power. (Section 5.4.3.1) (483/84-02-29)

Response: Procedure EIP-ZZ-00210 describes the radiation work permit program during emergencies.

30. The locations of offsite reassembly areas must be accurately described in both the RERP and relevant EIPs prior to fuel load. (Section 5.4.3.2) (483/84-02-30)

Response: Upon evacuation, personnel not essential to the emergency response will proceed to their respective parking lots. If required, an Alternate Assembly Area which has been identified in Revision 7 of the RERP Section 6.7.1.5 (Figure 6-3), may be

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used. EIP-ZZ-00230 provides procedural guidance for the use of the Alternate Assembly Area.

31. It must be clearly indicated, in the RERP and relevant EIPs, which type of evacuation (Protected Area or Owner Controlled Area) is mandatory or optional for each emergency classification and there must be provisions for the evacuation of all nonessentials from the Applicant's property for any Site Area or General Emergency declaration, unless radiological or environmental conditions prohibit. This must be completed prior to fuel load. (Section 5.4.3.2) (483/84-02-31)

Response: Revision 7 of the RERP, Section 6.7.1.5 specifies when evacuation is mandatory. EIP-ZZ-00230 provides procedural guidance for implementing evacuations. Evacuation will be required at the declaration of a Site or General Emergency, unless prohibited by radiological or environmental conditions.

32. Provisions must be developed and implemented, prior to fuel load, to ensure the complete evacuation of all persons outside the Protected Area but within the applicant's property whenever an evacuation of the latter has been ordered. (Section 5.4.3.3) (483/84-02-32)

Response: SDP-ZZ-SF020 describes the means for ensuring the complete evacuation of all persons outside the Protected Area but within the Exclusion Area Boundary.

33. Provisions must be developed and implemented, prior to fuel load, to ensure the capability of continued personnel accountability, including circumstances involving emergency response facility evacuation, after initial accountability has been determined. (Section 5.4.3.3) (483/84-02-33)

Response: SDP-ZZ-SF020 describes the means for accomplishing continued personnel accountability within emergency response facilities. Accountability for personnel dispatched from facilities is described and guidance is provided for accountability of personnel evacuated from emergency facilities. Security Supervisors have been trained on this procedure.

34. Portal monitors must achieve full operational status prior to fuel load. (Section 5.4.3.4) (483/84-02-34)

Response: Portal monitors are installed. They will be made fully operational prior to fuel load in accordance with the UE Radiation Protection Manual.

35. The completion of revision, implementation, and training on revised procedures which accurately describe all the functions of the security force upon activation of the RERP must be completed prior to fuel load. (Section 5.4.4) (483/84-02-35)

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Response: SDP-ZZ-SF020 provides procedural guidance for the Security Force actions during emergencies. Training of Security Supervisors has been completed in accordance with this procedure.

36. Procedures must be developed and implemented which describe the duties/responsibilities/authorities assigned to specific coordinators in the offsite emergency organization and managers and supervisors in the recovery organization, following a Recovery declaration. In addition, the RERP and/or procedures must identify trained alternates for each position in the recovery organization, as described in Section 9.2 of the RERP. This item must be completed prior to fuel load. (Section 5.4.6) (483/84-03-36)

Response: Revision 7 of RERP Section 9.2 describes the Recovery Organization, including trained alternates for each position. Revision 1 of EIP-ZZ-00260 provides procedural guidance on the duties assigned to specific personnel in the Recovery Organization.

37. The public information plan and related procedures must be integrated into the RERP and its EIPs. In addition, procedures must identify, by position, primary and alternate individuals who would serve as Technical Spokesperson at the JPIC. This item must be completed prior to initial criticality. (Section 5.4.7) (483/84-02-37)

Response: Revision 7 to RERP integrates the Public Information Plan into the overall UE emergency response capability. EIP-ZZ-PR020 provides procedural guidance for the activation and operation of all public information facilities. Alternate individuals for all key positions, including the Technical Spokesperson, are specified.

38. The communications drill procedure must be completed prior to fuel load. (Section 5.5.2) (483/84-02-38)

Response: EIP-ZZ-A0023 describes necessary periodic drills for communications channels.

39. The list of State, county, and local organizations provided with controlled copies of the RERP, and copies of relevant implementing procedures must be expanded to at least include the following: the EOCs of all counties within the plume exposure EPZ; the Callaway Memorial Hospital; the Callaway County Ambulance District; and other State and local organizations which may respond on-site to a radiological emergency at the Callaway Plant. These items must be completed prior to fuel load. (Section 5.5.3) (483/84-02-39)

Response: Copies of the RERP and relevant implementing procedures have been placed in each county EOC within the plume exposure EPZ, and at the State EOC. The Callaway Memorial Hospital and the Callaway County Ambulance District are housed in the same facilities and share a copy of the RERP and relevant implementing

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procedures. No other local offsite organizations are currently assigned responsibilities to respond on-site during a radiological emergency.

40. Agreements with offsite support organizations must be made and kept current, such that no Letters of Agreement are more than two years old. This must be completed prior to exceeding 5 percent power. (Section 6.1.6) (483/84-02-40)

Response: All letters of agreement have been updated.

In addition, a letter of agreement has been provided by Controls for Environmental Pollution, Inc., the environmental monitoring contractor for Callaway Plant.

41. Distribution of the emergency preparedness pamphlet to cover all segments of the permanent and transient populations within the plume exposure pathway EPZ must be completed prior to exceeding 5 percent power. (Section 6.2.1) (483/84-02-41)

Response: Distribution of the emergency preparedness pamphlets within the plume exposure EPZ has occurred in cooperation with local authorities.

ATTACHMENT 2
LISTING OF, AND UNION ELECTRIC RESPONSE TO, EMERGENCY PREPAREDNESS
APPRAISAL OPEN ITEMS WHICH REMAIN OPEN

The following is a list of Emergency Preparedness Open Items and the plans for item closure. All items with the exception of the Accountability Drill are scheduled to be completed and ready for re-examination the week of April 9, 1984. Any changes to this schedule will be communicated to the NRC Resident Inspectors and Region III. The numbering system used corresponds to the Emergency Preparedness Inspection Report No. 50-483/84-02 cover letter (C. J. Paperiello to D. F. Schnell, March 6, 1984).

2. The Emergency Telephone Directory must be developed and implemented to ensure staff augmentation is accomplished as described in Table 5-1 of the RERP. This must be completed prior to fuel load. (Section 2.1) (483/84-02-02)

Response: The Emergency Telephone Directory (ETD) has been developed in part. Specific individuals have not been listed for the Interim EOF Organization. These individuals have been identified and will be included in the ETD. A distribution list will be approved and distribution accomplished. This is expected to be accomplished by April 12, 1984.

7. Full operability of the ventilation system and the inclusion of a copy of the approved Technical Specifications must be completed in the Control Room prior to fuel load. (Section 4.1.1.1) (483/84-02-07)

Response: Current Technical Specifications (draft) are on file in the Control Room. The Control Room is on the distribution list for approved Technical Specifications when they are available. The Control Room ventilation system is expected to be pre-op tested by April 9, 1984.

12. The final selection of normal reporting stations (in-plant assembly areas), taking into account their habitability, availability of radiological monitoring equipment, availability of emergency lighting, and accessibility under accident conditions, along with acceptable posting of directions to these areas, must be completed prior to fuel load. (Section 4.1.2.1) (483/84-02-12)

Response: In-plant assembly areas have been identified. Choice of these areas considered habitability and accessibility. Radiological monitoring equipment and emergency lighting is available for these areas. Posting of areas and training of personnel in their reporting areas is in process.

Several drills are planned to exercise this facet of emergency preparedness. A demonstration of Union Electric's accountability capabilities is planned for the week of April 16, 1984.

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20. The achievement of full operational status for the evacuation alarms, fire alarms, and the public address (PA) system, including supplemental visual alarms, must all be completed prior to fuel load. (Section 4.2.3) (483/84-02-20)

Response: Design and procedural changes are in process to modify the Fire Alarm System. When accomplished, this system will be fully operational. This is expected to be accomplished by April 9, 1984. The public address system including visual alarms, and evacuation alarm systems are complete. These systems were tested in accordance with Acceptance Test Procedure CS-04QF101 and Preop Test Procedure CS-04QF01.

25. The achievement of full operational status by the RRIS in all intended emergency response facility locations, and completion of operating procedures and related training on the system for dose assessment personnel must be completed prior to exceeding 5 percent power. (Section 5.4.2) (483/84-02-25)

Response: Union Electric Company provided schedule data to the NRC, through SNUPPS staff, in a letter SLNRC-0019, dated 4/15/83. The schedule for full operability, including procedure completion and personnel training was given as a startup following the first refueling. A response to that schedule was given in a letter from B. J. Youngblood to G. L. Koester and D. F. Schnell dated August 8, 1983 which stated that the proposed schedules were acceptable. This provides for completion prior to restart following first refueling.

42. Installation and testing of the prompt public notification system equipment (sirens and tone alert radios) and training to offsite support groups on use of the system must be completed prior to exceeding 5 percent power. (Section 6.2.2) (483/84-02-42)

Response: An unidentified problem was encountered with the prompt notification system during the Field Exercise. System testing and operator retraining are now in progress. The system should be ready for re-examination and demonstration the week of April 9, 1984.

ATTACHMENT 3
LISTING OF, AND UNION ELECTRIC RESPONSE TO, NRC IMPROVEMENT ITEMS

1. All persons who would implement emergency procedures should routinely be involved in the development or modification of these procedures. (Section 1.1)

Response: The review of all Callaway Plant procedures, including EIPs, is governed by APA-ZZ-00101, Preparation, Review, Approval, and Control of Plant Procedures. Recommendations and suggestions are now routinely solicited during training, drills, and exercises.

2. A more systematic means should be implemented for tracking improvements to the emergency preparedness program that have been suggested by affected personnel. (Section 1.1)

Response: EIP-ZZ-A0020, Maintaining Emergency Preparedness, establishes an Action Item Tracking System. The system has been used during the drill program. Currently an automated system of Emergency Preparedness Program maintenance is being developed with the tracking program as a management tool to ensure suggested improvements are considered in emergency preparedness program elements.

3. The emergency planning staff should clearly be included among those members of the emergency organization having authority to perform the duties and responsibilities that they have been assigned. (Section 1.2)

Response: The authority assigned to the Manager, Nuclear Safety and Emergency Preparedness and his staff will be described in the next revision to the RERP and appropriate implementing procedures to reflect that they have the authority to perform their assigned duties and responsibilities.

4. Specific selection and qualification criteria should be developed and implemented for individuals performing emergency preparedness development activities. (Section 1.4)

Response: The selection and qualification criteria of Emergency Preparedness personnel will be clarified in the next revision of the RERP.

5. A professional development training program should be developed and implemented for individuals assigned to the nuclear safety and emergency preparedness staff which will enable them to attain and maintain a state-of-the-art knowledge in the field of emergency preparedness. (Section 1.4)

Response: The scoping of such a program has been previously identified as a departmental goal for first-half 1984. Routine participation in EP and Crisis Communications seminars sponsored by INPO will be established. A reassessment will be made of FEMA sponsored training sessions for relevance to this industry. Special attendance at seminars or specialty courses will be considered as they become available.

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6. There should be predesignated and appropriately trained persons who would be sent as technical representatives to State and local Emergency Operations Centers. (Section 2.1)

Response: This suggestion has been incorporated into the program, and is included in Section 5.4.3.2 of the RERP, Rev. 7.

7. Qualification criteria for individuals assigned to emergency response positions should be developed and implemented. (Section 2.1)

Response: Qualification criteria has been included in Sections 5.2 and 8.1.1 of the RERP, Rev. 7.

8. Specific criteria should be procedurally established to specify what minimum capabilities must be manned and ready before the TSC and the EOF can be declared operational. (Section 2.1)

Response: An Emergency Response Facility is declared operational by the Emergency Coordinator or Recovery Manager when it is assessed that there are sufficient personnel to cope with a particular emergency situation. In view of the numerous types of emergencies, we believe that a standard set of minimum capabilities could, at times, be misleading.

9. Responsibility for maintaining Control Room emergency packets should be assigned, and this assignment should be made known to Control Room personnel. (Section 4.1.1.1)

Response: Control Room emergency packets are maintained in accordance with EIP-ZZ-A0020. Control Room personnel will be informed of this in their retraining sessions.

10. The Administrative Coordinator's emergency packet should also include vendor contact information regarding health physics supplies. (Section 4.1.1.2)

Response: Vendor contact information regarding health physics supplies has been added to the Administrative Coordinator's packet and will be incorporated in EIP-ZZ-A0020.

11. All status boards having provisions for current meteorological data should also contain provisions for forecast meteorological information. (Sections 4.1.1.2 and 4.1.1.4)

Response: Provisions for meteorological forecast information have been added to the Dose Assessment status boards in the TSC and EOF.

12. All appropriate EPZ maps should depict the irregularly shaped EPZ boundary, proper 22.5 degree sector nomenclature, and clearly depict the boundaries and nomenclature associated with the emergency subareas within the EPZ. (Sections 4.1.1.2 and 4.1.1.4)

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(Continued)

Response: New maps depicting the EPZ, sectors, and subareas have been provided to the TSC, EOF, and State and County EOCs.

13. The Corridor No. 1 portion of the Access Control Area should be provided with fixed emergency lighting and an equipment checkout station. (Section 4.1.1.3)

Response: The emergency lighting in Corridor No. 1 has been reinstalled. The respirator checkout area will be available by mid-July 1984.

14. Locations besides the Service Building lunchroom should be predetermined as alternate assembly areas for operations and maintenance technicians. (Section 4.1.1.3)

Response: Considering the split OSC concept, the facilities are mutually supporting and personnel can be evacuated from one facility to the other.

15. The OSC Operations procedure should list all alternate assembly areas for all types of OSC personnel, or should specifically reference Table 4A of EIP-ZZ-00210 as the source of information on alternate assembly areas for all OSC personnel. (Section 4.1.1.3)

Response: EIP-ZZ-00241, OSC Operations will be modified to reflect that personnel will be evacuated from one OSC to the other if habitability conditions warrant. Table 4A of EIP-ZZ-00210 refers to points for accessing the Auxiliary Building should the Health Physics Access Control Area become unusable.

16. Sufficient desk space and telephone equipment for FEMA, SEMA, and county representatives should be provided in the EOF's Recovery Center room. (Section 4.1.1.4)

Response: Additional table space and telephones have been provided.

17. Additional telephone lines should be provided in the office reserved for State and local governmental representatives. (Section 4.1.1.4)

Response: Additional telephones have been installed in the State and Local Office.

18. Emergency packets for EOF coordinators should be stored at the EOF. (Section 4.1.1.4)

Response: Emergency packets have been placed in the EOF and are available for emergency response.

19. A mirror should be installed on the wall opposite the entry to the sample module room which will allow viewing of the grab sample cask coupling and uncoupling operations from a sufficiently shielded position. (Section 4.1.1.6)

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Response: The PASS system has been designed for ALARA considerations, and a Design Change to install a mirror has been prepared and approved. This mirror will be installed.

20. CTP-ZZ-08008 should also address provisions for sample collection when off-site power is lost, and should address use of the portable air sampler during grab sample collection. (Sections 4.1.1.6, 5.4.2.3 and 5.4.2.4)

Response: Procedures CTP-ZZ-08000 and CTP-ZZ-08008 will be revised to include sample collection during loss of off-site power. CTP-ZZ-08008 Rev. 1 will include a precaution to take air samples.

21. The Training Center, EOF parking lot, and primary meteorological tower should all be re-evaluated as reassembly areas due to available shelters from the elements, space, and radiological monitoring needs. (Section 4.1.2.1)

Response: The reassembly areas have been re-evaluated and a different alternate assembly area has been designated in the RERP, Rev. 7, Figure 6-3.

22. Should the primary meteorological tower be retained as a reassembly area, adequate lighting should be available in its immediate vicinity and route markings to the tower should be conspicuously posted. Decontamination and respiratory equipment should be predeployed at this location. (Section 4.1.2.1)

Response: The Primary Meteorological Tower is no longer a reassembly area.

23. When the personnel dosimetry program is implemented, extremity dosimetry devices for re-entry repair/corrective action teams should be placed in the OSC lunchroom and OSC Health Physics Access Control emergency kits. (Section 4.2.1.1)

Response: Extremity dosimetry has been added to OSC Emergency Equipment Kits.

24. The Systems Engineer and new Coop Engineer should complete familiarization training on the meteorological monitoring system. (Section 4.2.1.4)

Response: The System and Co-op Engineers will review the training video tapes for the meteorological system as suggested.

25. A complete meteorological monitoring system calibration should be done by April 1984, as the first of the planned quarterly calibrations. (Section 4.2.1.4)

Response: In accordance with Technical Specifications 4.3.3.4, Table 4.3-5, meteorological instrumentation requires a channel calibration on a semiannual rotation and daily channel checks to be performed by

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Operations. I&C performs weekly quality checks. It is our intent to complete the first scheduled series of calibrations in April 1984.

26. The applicant's meteorologist should have a more formalized and routine involvement with the monitoring program, becoming routinely involved in matters regarding modification of surveillance and calibration procedures; interpretation of seemingly abnormal data; quality assurance audits; and any refinement of data quality checks in the RRIS. (Section 4.2.1.4)

Response: The meteorologist is utilized whenever activities impact his areas of expertise. QA procedures allow for technical specialists, including meteorologists to be members of QA audit teams.

27. Surveillance procedures should require that strip charts be reviewed back to the previous surveillance visit in order to improve the capability of detecting intermittent or subtle equipment problems, and that charts should be thoroughly reviewed promptly after removal from recording locations. (Section 4.2.1.4)

Response: Charts are reviewed after removal to ensure satisfactory equipment performance. Computer points are updated every 5 seconds. A daily channel check is performed by operations personnel. The above checks should provide sufficient capability for early detection of equipment malfunction or failure.

28. Wind speed and wind direction persistence tests should be added to RRIS software to improve the capability of detecting stuck or frozen wind sensors. (Section 4.2.1.4)

Response: The RRIS software performs tests to provide confidence in the data generated by the wind indicators.

29. Appropriate control room and health physics staff personnel should be trained on interpretation of analog meteorological data they may be tasked to obtain. (Section 4.2.1.4)

Response: Strip charts are labeled with parameters and units for ease in interpretation. Technicians dispatched to relay meteorological data will be instructed on the interpretation of the charts and instruments.

30. Backup charts for meteorological data should be in the Control Room to eliminate the possible need to leave the Control Room under accident conditions in order to acquire such data, should the Control Room RRIS equipment malfunction. (Section 4.2.1.4)

Response: The backup chart recorders are located in the BOP Computer Room which is adjacent to the Control Room. A Rad/Chem Technician will be dispatched to provide recorder readings during emergencies, if, coincidental with the emergency, the RRIS malfunctions.

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31. The weather radio in the Operation Supervisor's office should be relocated into the Control Room panel area or SAS to better ensure that on-shift personnel can hear the radio at all times. (Section 4.2.1.4)

Response: A weather radio was tested in the Control Room and the results were not satisfactory. It has subsequently been placed in the Security Building.

32. An inventory and control procedure should be developed to identify the stock level of all respiratory protective devices that are not located in the Emergency Kits. (Section 4.2.2.1)

Response: Respiratory devices and equipment are included in an automatic reorder system to ensure that adequate stocks are maintained.

33. HTP-ZZ-08502 should not be listed in HTP-ZZ-08401 as "not written" since HTP-ZZ-08502 no longer exists. (Section 4.2.2.1)

Response: The reference to HTP-ZZ-08502 has been deleted.

34. HTP-ZZ-08501 should not list HTP-ZZ-08500 as "not approved." (Section 4.2.2.1)

Response: The reference to HTP-ZZ-08500 as "not approved" will be removed in the next procedure revision.

35. Arrangements with a radiological environmental monitoring contractor should be made to provide emergency environmental dosimetry services. (Section 4.2.5)

Response: A letter of agreement has been obtained from Controls for Environmental Pollution, Inc. to include emergency environmental dosimetry services.

36. Procedures should be developed to obtain emergency supplies such as radiation detection devices, dosimetry, and respiratory protection equipment from non Union Electric sources. The equipment should have the same or equivalent operational characteristics as those used by the applicant. (Section 4.2.5)

Response: EIP-ZZ-00203, Additional Assistance, addresses procuring supplies and equipment during emergencies. The INPO Emergency assistance agreement provides an additional means for obtaining necessary equipment and supplies.

37. Labeled tabs should be provided as indicated in paragraph 4.2.1 of EIP-ZZ-00101 in all EIP binders in all emergency response facilities to facilitate the locating of EALs from the eight categories contained in Attachment 1 to this EIP. (Section 5.1)

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Response: Controlled copies of EIP-ZZ-00101 in the Control Room and Emergency Packets have been tabbed.

38. Technical Specifications should be added as a reference document in EIP-ZZ-00101. (Section 5.1)

Response: The Technical Specifications will be referenced in Rev. 3 to EIP-ZZ-00101.

39. All off-normal, health physics, and other procedure types which may relate to emergency conditions should be reviewed to ensure all such procedures reference the need for EAL review during emergencies. Such references should be added during the next procedure revision. (Section 5.2)

Response: The applicable off-normal procedures are being revised to reference EALs. The recommendation for other procedures to reference EALs is under review.

40. EIP-ZZ-C0010 should be made consistent with the format of EIP-ZZ-00240 and -00241 to include a floor plan showing locations of specific communications and other systems to be verified operable upon facility activation. (Section 5.3)

Response: EIP-ZZ-C0010 has been revised to be consistent with EIP-ZZ-00240 and -00241, and a floor plan has been added.

41. The backup EOF procedure should include a floor plan showing specific systems to be verified operable upon facility activation and a route map from the nearsite EOF to this facility. (Section 5.3)

Response: EIP-ZZ-C0015 has a Backup EOF floor plan and a route map from the nearsite EOF to this facility. Since all systems are segments of the State EOC, they will all have been operable prior to activation as a Backup EOF.

42. EIP-ZZ-00212 should be revised to reference current dose assessment procedures and delete reference to EIP-ZZ-00211. (Section 5.3)

Response: EIP-ZZ-00212 has been revised to reflect current dose assessment procedures.

43. EIP-ZZ-00201 should reference EIP-ZZ-C0010 instead of EIP-ZZ-00242. (Section 5.3)

Response: EIP-ZZ-00201 has been revised to delete references to EIP-ZZ-00242. The revision also eliminates the need to reference EIP-ZZ-C0010.

44. The NRC Resident Inspector should be included on the list of personnel to notify upon declaration of any emergency. (Section 5.4.1)

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Response: The NRC Resident Inspector has been added to the Notification Checklist in EIP-ZZ-00201.

45. EIP-ZZ-00201, Notifications, should include a note stating the correct interpretation of the initial notification time requirement for State and local agencies, per 10 CFR 50, Appendix E, Paragraph IV.D.3. (Section 5.4.1)

Response: Notification time requirements for State and local organizations have been added to EIP-ZZ-00201.

46. Procedural guidance should be developed regarding the frequency of followup notifications to Federal, State, and local offsite support organizations, even if emergency reclassification was not necessary. (Section 5.4.1)

Response: The frequency of followup notifications has been specified in EIP-ZZ-00201.

47. The Initial Notification Form should be revised to include provisions for specifically identifying any affected offsite areas and documenting any specific recommended protective actions. (Section 5.4.1)

Response: The Notification Form has been revised to reflect affected off-site areas and recommended protective actions.

48. The Followup Notification Form should include provisions for transmitting information on the applicant's emergency response activities and any requests for offsite support. (Section 5.4.1)

Response: The SEMA Additional Notification Form has been revised to reflect UE's emergency response activities and requests for off-site support.

49. The Notification Checklist should include primary and backup communications information for corporate office and public relations staff contacts and telephone number information for offsite agency use for verification callbacks. (Section 5.4.1)

Response: The primary and backup means of communications for the Corporate Office and PR staff have been added to the Notification Checklist. The verification callback number is on the Notification Form.

50. Procedural provisions should be developed for obtaining feedback from offsite authorities regarding their actions in response to protective action recommendations. (Section 5.4.1)

Response: The Emergency Public Information Organization monitors EBS stations for verification of protective actions given to the public. The State has representatives in the EOF who are in contact with County officials and provide feedback to Union Electric.

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51. The 30 minute time limit established for awaiting verification call backs on any offsite notifications should be reduced. (Section 5.4.1)

Response: The 30 minute time limit applies to SEMA only. This is part of SEMA's standard procedure.

52. Plume exposure EPZ maps in EIP-ZZ-00212, -01211, and -02211 should depict both the proper 22 1/2 degree sector and emergency subarea nomenclatures and clearly show the boundaries of these regions. (Section 5.4.2)

Response: A cross-reference table has been added to EIP-ZZ-00212, to better depict the sector-subarea relationship.

53. EIP-ZZ-00212, Attachment 10 to EIP-ZZ-00240, and EIP-ZZ-C0010 should be revised to instruct the user on how to obtain a meteorological forecast and factor such forecast information into the dose projection and Protective Action Recommendation formulation processes. (Section 5.4.2)

Response: Weather forecast information is currently being used by Dose Assessment personnel. The incorporation into procedures of instructions on obtaining and utilizing weather forecasts is being evaluated.

54. Procedures for the collection and analysis of environmental TLDs under emergency conditions should be developed. (Section 5.4.2.7)

Response: Normal environmental TLD collection procedures will be utilized taking into consideration radiological conditions.

55. The fire preplans should include references to EALs, where appropriate, so that the Fire Brigade Leader can better advise the Shift Supervisor of any need to activate the emergency plan. (Section 5.4.2.8)

Response: The need to reference EALs in the pre-fire strategies to facilitate the classification of fire related emergencies is not considered necessary in our judgement.

The Fire Brigade leader is a licensed operator who has received training in assessing a fire situation, as part of the initial Fire Brigade training program. He assists the Shift Supervisor in the decision process utilizing procedure EIP-ZZ-00101, Classification of Emergencies, which spells out the action levels and emergency classifications required to evaluate the potential fire situation.

56. One or more health physics technicians should always accompany or meet evacuating nonessentials at designated reassembly areas. (Section 5.4.3.4)

Response: In accordance with EIP-ZZ-00230, -00210, and -00214, Health Physics personnel will be dispatched to the alternate assembly area.

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57. The Assembly Area Coordinator should be provided with additional procedural guidance regarding the use of survey equipment, contamination limits, instructions on how to contact appropriate TSC and EOF coordinators, and required actions when dealing with potential or actual contamination problems. (Section 5.4.3.4)

Response: The position of Assembly Area Coordinator has been deleted. Health Physics personnel will be available to provide radiological support at assembly areas per EIP-ZZ-00210, Rev. 1 and -00214, Rev. 1, and will report to the Health Physics Coordinator.

58. A procedure that provides guidance on the treatment of casualties during an emergency should be developed. (Section 5.4.3.5)

Response: First Aid is performed in accordance with the Standard Multi-media First Aid. However, the training of personnel in the treatment of contaminated injured is being closely reviewed. Improvements will be incorporated to ensure better performance than demonstrated during our recent Exercise.

59. The practice of combining drills with exercises should be avoided in order to achieve the real time training benefit derived from the drills. (Section 5.5.2)

Response: EIP-ZZ-A0010 will be revised to delete the practice of combining drills with exercises.

60. The substitution of real events for drills should be avoided since the independent observation and evaluation capabilities would not be present during real events. (Section 5.5.2)

Response: EIP-ZZ-A0010 will be revised to delete the practice of substituting real events for drills.

61. Provisions to periodically review the Emergency Plan and implementing procedure distribution lists for adequacy and accuracy should be developed. (Section 5.5.3)

Response: UE QA may review distribution lists for accuracy during their periodic audits. In addition, EIP-ZZ-A0020 will be modified to ensure verification of adequacy of distribution lists.

62. A tour of the Callaway Plant should be given to members of the Callaway County Ambulance District to better acquaint them with areas they might traverse during a real event or exercise. (Section 6.1.5)

Response: Ambulance and hospital personnel toured the Callaway Plant on February 23, 1984. Future tours will be arranged periodically to ensure personnel remain familiar with plant areas and orient new personnel.

63. Should an agreement be made for firefighting support from an offsite organization, a letter of agreement, which includes a description of

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the services to be provided, should be appended to the RERP. (Section 6.1.6)

Response: Should an agreement be made for firefighting support, a letter of agreement will be appended to the RERP.

64. Following issuance of revisions to relevant EIPs, seminars or walkthroughs with Control Room staff, including STAs, should be conducted on these revisions. Emphasis should be placed on areas including STA role clarification, emergency classification, logkeeping, protective action recommendations, and emergency notifications to appropriate personnel and offsite authorities. (Section 7.2)

Response: Retraining has been conducted on changes to EIPs. Shift Technical Advisors (STAs) participated in the retraining. The STA shall provide technical support to the Shift Supervisor (SS) in the areas of thermal hydraulic, reactor engineering, and plant analysis with regard to the safe operation of the plant. At Callaway, the STA is responsible for assisting the SS in establishing the Emergency Action Levels Classification, Function Restoration Guideline Fault Trees, and overall plant safety assessment. Additional duties may be assigned as necessary by the Shift Supervisor.

65. A large scale plume exposure EPZ should be mounted in the Control Room. (Section 7.2)

Response: Due to ongoing construction in the Control Room, the installation of an EPZ map has been deferred; however, an EPZ map is available and will soon be mounted in the Control Room.

66. TSC and EOF Coordinator training should address interfaces with NRC Site Team counterparts. (Section 7.2)

Response: EOF and TSC training and retraining will be revised to address NRC interfaces in accordance with the RERP and the NRC Incident Response Plan.

67. The role and duties of the EOF's Technical Support Coordinator and staff should be re-evaluated to provide greater inputs into the technical evaluation, emergency classification, and protective action decisionmaking processes. (Section 7.2)

Response: The Technical Support Coordinator provides input into the technical evaluation, emergency classification, and protective action decision making processes. The Technical Support activities have been stressed in recent retraining and drills. The role of the Technical Support Coordinator will be defined in greater detail. It was noted in the critique of the Field Exercise that the Rad Assessment Coordinator and the Technical Support Coordinator must be prepared to assist the Recovery Manager in discussions of appropriate Protective Action Recommendations during emergency situations.