DEC 2 0 1985

Docket No. 50-461

Illinois Power Company ATTN: Mr. W. C. Gerstner Executive Vice President 500 South 27th Street Decatur, IL 62525

Gentlemen:

SUBJECT: EMERGENCY PREPAREDNESS IMPLEMENTATION APPRAISAL

To verify that applicants have attained an adequate state of onsite emergency preparedness as required by 10 CFR 50.47(a)(1), the NRC conducts special preoperational appraisals of their emergency preparedness program. The objectives of the appraisal are to evaluate the overall adequacy and effectiveness of emergency preparedness and to identify areas of weakness that need to be strengthened.

During the period November 12-21, 1985, the NRC conducted a special appraisal of the state of onsite emergency preparedness at the Clinton Nuclear Power Station, Unit 1, authorized by NRC Construction Permit No. CPPR-137. Areas examined during this appraisal are described in the enclosed report (50-461/85039). Within these areas, the appraisal team reviewed selected procedures and representative records, inspected emergency facilities and equipment, observed work practices, and interviewed personnel.

No significant deficiencies, deviations, or violations were identified as a result of this appraisal.

The findings of this appraisal indicated that a number of areas of your emergency preparedness program were not complete at the time of this appraisal. These areas included, among others, installation and calibration of certain equipment, related procedural development and training, procedure updates, and demonstration of shift augmentation and assembly/accountability. These items are identified as Open Items and are listed in the enclosed Appendix A.

The findings also indicate that there are several items in your emergency preparedness program which need improvement, and these items are listed in the enclosed Appendix B. These improvements are areas which we believe, based on professional judgement, should be corrected.

You are requested to submit a written statement within thirty days of the date of this letter, describing your planned actions for completing each of the items identified in Appendix A and the results of your consideration of each of the items in Appendix B. All of the Open Items must be completed prior to licensing.

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In accordance with 10 CFR 2.790 of the Commission's regulations, a copy of this letter, the enclosures, and your responses to this letter will be placed in the NRC Public Document Room.

The responses directed by this letter are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

We will gladly discuss any questions you have concerning this appraisal.

Sincerely,

"Original signed by W.D. Shafer"

W. D. Shafer, Chief Emergency Preparedness and Radiological Protection Branch

Enclosures:

- Appendix A, Appraisal Open Items
- Appendix B, Appraisal Improvement Items
- Inspection Report No. 50-461/85039(DRSS)

cc w/enclosures: DCS/RSB (RIDS) Resident Inspector, RIII Richard Hubbard Gary N. Wright, Manager Nuclear Facility Safety Jean Foy, Prairie Alliance Allen Samelson, Assistant Attorney General, Environmental Control Division H. S. Taylor, Quality Assurance Division

D. Matthews, OIE, EPB

W. Weaver, FEMA, RV



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Appendix A - Open Items

The following is a list of Open Items identified in the area of emergency preparedness which must be completed prior to fuel load.

- An actual drill demonstrating the capability to implement staff augmentation in accordance with the CPS Emergency Plan must be performed prior to fuel load. (Section 2.2) (461/85039-01)
- 2. All primary and alternate personnel must be trained in their emergency functions prior to fuel load. (Section 2.2) (461/85039-02)
- The Emergency Plan and/or EPIPs must address relocating the TSC and OSC if they become uninhabitable. This must be completed prior to fuel load. (Sections 4.1.1.2 and 4.1.1.3) (461/85039-03)
- Installation of the telephones planned for the TSC's NRC Consultation Room must be completed prior to fuel load. (Section 4.1.1.2) (461/85039-04)
- Develop and maintain an official controlled inventory list for the supply cabinet in the TSC containing administrative and support material; including a provision for periodic inventories. This must be completed prior to fuel load. (Section 4.1.1.2) (461/85039-05)
- 6. The Area Radiation Monitoring/Process Radiation Monitoring (ARM/PRM) system and the Performance Monitoring System/Display (PMS/DES) system (data acquisition ystems) must be operable in the TSC and EOF, and operators trained in its use prior to fuel load. (Sections 4.1.1.2 and 4.1.1.4) (461/85039-06)
- Revise EPIP FE-02, Operations Support Center Operations, to reflect the correct location of the OSC prior to fuel load. (Section 4.1.1.3) (461/85039-07)
- Establish and maintain operability of telephone systems in the OSC prior to fuel load. (Section 4.1.1.3) (461/85039-08)
- Develop and maintain an official controlled inventory list for the EOF cabinet containing administrative and miscellaneous supplies, including a provision for periodic inventories, prior to fuel load. (Section 4.1.1.4) (461/85039-09)
- Equipment (sample containers, shielding, handling, and transport equipment) needed to enable sampling at existing grab sample ports for the HVAC vent and SGTF offgas system must be developed and tested prior to fuel load. (Section 4.1.1.7) (461/85039-10)
- Accessibility to and from the HVAC vent and SGTF offgas system sample ports, while using all necessary equipment, must be verified prior to fuel load. (Section 4.1.1.7) (461/85039-11)
- Procedure CPS 1890.36 must be completed and approved prior to fuel load. (Section 4.1.1.7) (461/85039-12)

- Complete the installation of the Germanium Detector and make necessary repairs to the Phoswich System located in the EOF Environmental Sample Analysis Laboratory. This equipment must be operational prior to fuel load. (Section 4.1.1.8) (461/85039-13)
- 14. Training lesson plans, for both Emergency Response and nonessential personnel, must be change to reflect actual assembly and reassembly areas and evacuation routes and all plant personnel retrained. This must be completed prior to use load. (Section 4.1.2.1) (461/85039-14)
- 15. The assembly and reassembly areas and evacuation routes must be identified and equipped with appropriate communication and protective equipment, including provisions for decontamination. This must be completed prior to fuel load. (Section 4.1.2.1) (461/85039-15)
- Provide extremity dosimetry for the OSC and hospital kits prior to fuel load. (Section 4.2.1.1) (461/85039-16)
- Confirm that the operational meteorological measurements programs meet the system accuracy specifications stated in ANSI/ANS 2.5-1984 and Regulatory Guide 1.97 for wind speed, wind direction and vertical temperature difference. This must be completed prior to fuel load. (Section 4.2.1.4) (461/85039-17)
- Confirm that meteorological data availability goals can be achieved during plant operation prior to fuel load. (Section 4.2.1.4) (461/85039-18)
- 19. Demonstrate that meteorological data from the NWS station at Springfield adequately represents the Clinton site in real-time for use as backup information. (Installation of onsite backup or redundant sensors at the 10-meter level would be an adequate alternative to the use of Springfield data). This must be completed prior to fuel load. (Section 4.2.1.4) (461/85039-19)
- Incorporate the specific methodology and responsibility for acquisition of NWS forecast information and integration of this information into protective action recommendations and dose assessment prior to fuel load. (Section 4.2.1.4) (461/85039-20)
- 21. Correct inaccurate and incomplete references to meteorological information (i.e., determination of atmospheric stability) from EPIP RA-01, Manual Dose Assessment, and identify averaging periods that are to be used in the calculations. This must be completed prior to fuel load. (Section 4.2.1.4) (461/85039-21)
- Protective clothing supplies now stored in the Unit II Crossover Room must be placed in designated areas of the plant in accordance with Emergency Plan, Chapter 3.2.10.1 and Table 3-8 prior to fuel load. (Section 4.2.2) (461/85039-22)

- The public address system must be completely installed and operational prior to fuel load. (Section 4.2.3) (461/85039-23)
- All emergency alarms must be completely installed and operational prior to fuel load. (Section 4.2.3) (461/85039-24)
- Complete the stocking, organization and inventories of damage control/corrective action equipment and supplies prior to fuel load. (Section 4.2.4) (461/85039-25)
- 26. Where appropriate, System/Plant Operating Procedures (3000 Series), Off-Normal Procedures (4000 Series) and Annunciator Procedures (5000 Series) must be completed and appropriately reference and implement EPIP EC-02, Emergency Classifications. This must be completed prior to fuel load. (Section 5.2) (461/85039-26)
- 27. Ensure to the maximum extent possible that EALs are quantified and that criteria constituting EALs shall be as-read or as-observed, minimizing computations or calculation to determine if the EAL is exceeded. This must be completed prior to fuel load. (Section 5.3) (461/85039-27)
- Revise EPIP EC-07, Emergency Plan Notification, prior to fuel load to be consistent with the methodologies actually employed. (Section 5.4.1) (461/85039-28)
- Revise the Emergency Plan and EPIPs prior to fuel load to conform with the requirements of 10 CFR 50.72(a)(3) concerning notification time limits. (Section 5.4.1) (461/85039-29)
- Procedure CPS 1890.34 for use of the PASS must be completed and approved prior to fuel load. (Section 5.4.2.3) (461/85039-30)
- Revise the EPIPs to correctly reflect the actual location of the assembly areas prior to fuel load. (Section 5.4.3.1) (461/85039-31)
- 32. Develop and implement a means for verifying that personnel outside the protected area but inside the CPS exclusion area have actually received the notification of the emergency condition and have followed the instructions provided prior to fuel load. (Section 5.4.3.1) (461/85039-32)
- 33. Revise the Emergency Team Data Sheet to provide for individual authorization signatures for each person who is authorized to exceed 10 CFR 20 limits. The data sheet should also provide for an acknowledgement signature by each authorized worker to signify his understanding of the assignment, the potential risks, and his willingness to accept those risks. This must be completed prior to fuel load. (Section 5.4.4) (461/85039-33)

- 34. Revise the procedures to identify media organizations, media locations, and specific methods for contacting the media in the event of an emergency. This must be completed prior to fuel load. (Section 5.4.6) (461/85039-34)
- 35. The procedures should be revised to prescribe the means for coordinating information among spokespersons of various organizations and groups prior to the activation of the JPIC. This must be completed prior to fuel load. (Section 5.4.6) (461/85039-35)
- 36. Procedure EPIP FE-05, Emergency Kits, must be modified prior to fuel load to assign responsibility for inventory and maintenance of emergency equipment in the Control Room, TSC, OSC, EOF, and BEOF. (Section 5.5.1) (461/85039-36)
- Procedure EPIP AP-09, Emergency Communications Surveillances, must be modified prior to fuel load to specify the testing frequencies of emergency communications equipment. (Section 5.5.1) (461/85039-37)
- All Letters of agreement must be obtained and/or updated prior to fuel load. (Section 6.1.7) (461/85039-38)
- The public information brochure must be disseminated to the public prior to fuel load. (Section 6.2) (461/85039-39)
- Emergency information must be made available to the transient population prior to fuel load. (Section 6.2) (461/85039-40)
- The operability of the final siren system must be demonstrated prior to fuel load. (Section 6.2) (461/85039-41)
- 42. The news media must be informed of the applicant's program for media familiarity with emergency plans, points of contact for release of public information, space allocated for the media's use, information about radiation, normal plant operation versus accident operation and accident sequences. This must be completed prior to fuel load. (Section 6.3) (461/85039-42)
- 43. Control Room personnel must be provided with additional training regarding emergency classifications, especially related to the relationship between emergency classifications and fission product barrier status. This must be corrected prior to fuel load. (Section 7.2.2) (461/85039-43)
- 44. Conduct additional practical training prior to fuel load for Control Room personnel concerning notifications, message preparation, and communications to ensure uniform and timely accomplishment of notification requirements. (Section 7.2.3) (461/85039-44)

- 45. Conduct training for appropriate personnel on the use of SAARS Emergency Dose Calculation Package and the utilization of computed data from SAARS prior to fuel load. (Section 7.2.4) (461/85039-45)
- Revise RA-02, Protective Action Recommendations, to ensure functionality and compliance with regulatory requirements and guidance, prior to fuel load. (Section 7.2.5) (461/85039-46)
- 47. Conduct practical training for emergency response organization personnel in formulating protective action recommendations based on varying plant conditions and status, dose assessment/projection, and environmental conditions prior to fuel load. (Section 7.2.5) (461/85039-47)

Appendix B - Improvement Items

Based on the results of the NRC's appraisal of the Clinton Nuclear Power Station emergency preparedness program conducted November 12-21, 1985, the following items should be considered for improvement:

- A formal program for training should be developed and implemented for individuals who are assigned Emergency Planning responsibilities, which will enable them to attain and maintain a state-of-the-art knowledge in the field of emergency planning and preparedness. (Section 1.3)
- Section 5.4.3 of the Emergency Plan should be amended to provide that no one will be assigned a position in the Emergency Response Organization prior to satisfactorily completing all required training. (Section 3.1)
- The Training Department should be represented on the Safety Evaluation Review Board when proposed changes to the EPIPs are considered. (Section 3.1)
- Section 5.4.3.2 of the Emergency Plan should be revised so that it clearly indicates that fire brigade members will receive all required refresher training at least biannually. (Section 3.1)
- 5. The discrepancy between Section 5.4.2 of the Emergency Plan which indicates that lesson plan concurrence is a responsibility of the Supervisor - Emergency Planning and the CPS position description which assigns that responsibility to Supervisor - Emergency Response, should be reconciled. (Section 3.1)
- A set of selected models and/or color photographs and layouts of key areas within the plant should be prepared and maintained for use in job planning/training for re-entry under accident and/or accident recovery conditions. (Section 4.1.1.4)
- A routine quality control check, either manual or automated, should be implemented for meteorological data. (Section 4.2.1.4)
- The return-to-service times for replacement of inoperable meteorological equipment should be reduced. (Section 4.2.1.4)
- Procedures for obtaining and using backup or offsite meteorological data should be clarified and simplified, and reflect the uncertainties in these data sources in the dose assessment and protective action decisionmaking process. (Section 4.2.1.4)
- 10. The plume-segment atmospheric dispersion model used for dose assessment should be documented and verified. (Section 4.2.1.4)
- 11. The following should be considered for inclusion in damage control/ maintenance kits: fire suits; acid suits; steam suits; respiratory equipment (including ancillary support equipment); protective clothing; portable lighting; portable radiation monitors; Polaroid cameras and film; rubber mats; and, Wiggins voltage testers. (Section 4.2.4)

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- 12. Procedure indexes should be provided, where appropriate, to relieve operator memory tasks. (Section 5.2)
- References to deleted procedures should be deleted in the operating procedures. (Section 5.2)
- 14. Emergency procedures should be prepared for loss of DC power and Combustible Gas Control. (Section 5.2)
- 15. Temporary changes should be entered into the body of emergency procedures to reduce operator workload. (Section 5.2)
- 16. Emergency Action Levels (EALs) (defined in 10 CFR 50, Appendix E, IV.B) and emergency classes (Appendix E, IV.C) should be differentiated and made in accordance with the regulations throughout the Emergency Plan and EPIPs. (Section 5.3)
- 17. The Emergency Classification scheme (and supporting EALs) should be structured in a manner that establishes the following equivalencies of fission product barrier integrity and classifications: (a) Unusual Event all barriers intact; (b) Alert - one barrier challenged or failed; (c) Site Area Emergency - two barriers challenged, failed, or combination thereof; and (d) General Emergency - all three barriers challenged, failed, or combination thereof. (Section 5.3)
- Internal references and requirements in the EPIPs and the Emergency Plan should be consistent. (Section 5.3)
- Assumption of duties in various disciplines should be provided by the first responder to the facilities. (Section 5.3)
- 20. An authentication scheme should be provided in event of NARS failure. (Section 5.4.1)
- 21. The Emergency Plan should specify that a certain percentage of the drills will be conducted on the backshifts. (Section 5.5.2)
- 22. The specific requirements for the annual Emergency Preparedness Program Audit should be defined in an expanded version of Section 5.2 of the plan or in the EPIPs and these requirements should be cited as a reference in the annual audit order. (Section 5.5.4)
- The team conducting the annual audit of the Emergency Preparedness Program should observe an emergency drill other than as controllers or evaluators. (Section 5.5.4)
- 24. The applicant should consult and coordinate with the ambulance service to improve enroute communications. (Section 6.1.2)

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- 25. The Sheriff Department's training should be improved to include information on siren activation, purpose of siren system modifications, and notification sources. (Section 6.1.5)
- 26. A sufficient amount of respiratory equipment should be provided to fully equip properly manned fire trucks. (Section 6.1.6)
- 27. Training should be sufficient to distinguish between security requirements and health physics practices. (Section 6.1.6)
- IPC Corporate Nuclear Procedure 4-03, Revision 2 should be revised to accurately reflect who has responsibility for coordination of publication of the public information brochure. (Section 6.2)
- 29. A rumor control number should be listed in the public information brochure's next update; in the interim, the rumor control number should be placed in the monthly newsletter after fuel load. (Section 6.2)
- Additional practical training for MCR personnel should be conducted to ensure adequate capability to implement plant emergency procedures. (Sections 7.2.1)
- 31. Additional training should be conducted for watch organizations to assure personnel assignments in the emergency organization make the most efficient use of the expertise of the various individuals to meet the needs of the existing situation. (Section 7.2.3)
- 32. Additional practical training should be conducted for appropriate personnel in performing EPIP RA-01, Manual Radiological Dose Assessment, and evaluation of computed data. (Section 7.2.4)

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