

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-454/84-78(DRSS); 50-455/84-52(DRSS)

Docket Nos. 50-454; 50-455

Licenses No. NPF-23; CPPR-131

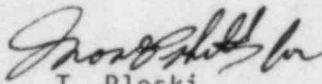
Licensee: Commonwealth Edison Company
Post Office Box 767
Chicago, IL 60690

Facility Name: Byron Nuclear Generating Station, Units 1 and 2

Inspection At: Byron Site, Byron, IL

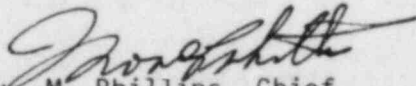
Inspection Conducted: December 27, 1984

Inspector:


T. Ploski

1/7/85
Date

Approved By:


M. Phillips, Chief
Emergency Preparedness Section

1/7/85
Date

Inspection Summary

Inspection on December 27, 1984 (Reports No. 50-454/84-78(DRSS);
50-455/84-52(DRSS))

Areas Inspected: Routine, announced follow-up inspection of Open Items identified during the December 1983 Emergency Preparedness Implementation Appraisal. The inspection involved four inspector-hours onsite by one NRC inspector.

Results: No items of noncompliance or deviations were identified. All Open Items and License Conditions related to emergency preparedness were closed.

DETAILS

1. Persons Contacted

- S. Brown, Acting GSEP Coordinator
- B. Scott, Health Physicist
- B. Byrne, Construction Field Engineer

2. Licensee Actions on Previously-Identified Items Related to Emergency Preparedness

- a. (Closed) Open Item Nos. 454/83-56-03; 455/83-39-03; and Item E.2.a of Attachment 1 to Byron Station Unit 1 Operating License NPF-23 which is incorporated in the license by Section 2.C.1 of NPF-23: Complete the Technical Support Center (TSC) by making the emergency ventilation system and its associated radiation monitoring system operable and by placing a copy of the approved technical specifications in the TSC working area. The inspector determined that copies of the FSAR and Technical Specifications had been placed in the TSC. The inspector reviewed an advance copy of the technical report dated December 18, 1984, which indicated that the TSC's emergency ventilation system had successfully completed all aspects of final acceptance testing. The system's particulate and charcoal filters had met performance requirements. A licensee representative indicated that the system was fully operational and satisfactorily demonstrated the system's operation for the inspector. The inspector also observed that the TSC's continuous air monitor (CAM) was in its designated location and was in operation. Its flowmeter, iodine, and noble gas detectors had been calibrated on August 21, 1984. The particulate detector had been calibrated on October 30, 1984. A licensee representative stated that the CAM was considered fully operational. This item is closed.
- b. (Closed) Open Item Nos. 454/83-56-13 and 455/83-39-13: Develop a procedure to determine radioiodine concentrations in the field as low as $1 \text{ E-}07 \text{ } \mu\text{Ci/cc}$ for the equipment currently available to field teams. The licensee has developed Byron Radiological Procedure (BRP) 1740-2, "Field Operations of the Eberline SAM-2 Stabilized Assay Meter," Revision 3, dated September 15, 1984. This procedure was reviewed by the inspector and found to adequately describe the methods for determining Minimum Detectable Activity such that radioiodine concentrations as low as $1 \text{ E-}07$ could be found with either field instrument used by Byron offsite monitoring teams. This item is closed.
- c. (Closed) Open Item Nos. 454/84-00-01; 455/84-00-01; and License Condition No. 2.C.11.a: Clarify the Evacuation Time Study, and amend it if necessary, to reflect employment-center shutdown times. By letter dated August 16, 1984, the licensee provided a copy of a

June 1984 revision to the "Evacuation Time Estimates Within the Plume Exposure Pathway Emergency Planning Zone for the Byron Nuclear Generating Station." A review of the revised estimates indicated that the licensee had provided additional estimates of the shutdown time required for the thirteen major employers, and these estimates were included in the evacuation times specified for the general public, with notes indicating those employers with shutdown times approximating the general public evacuation times. Based on the review of the revised evacuation time estimates, this item is closed.

- d. (Closed) Open Item Nos. 454/84-00-02; 455/84-00-02; and License Condition 2.C.11.b: Modify the Evacuation Time Estimates to reflect realistic time estimates under adverse weather conditions. By letter dated August 16, 1984, the licensee provided a copy of a June 1984 revision to the "Evacuation Time Estimates Within the Plume Exposure Pathway Emergency Planning Zone for the Byron Nuclear Generating Station." A review of the revised estimates indicated that the licensee had revised the road capacity reduction factor from 30 percent to 20 percent based on the testimony provided by Dr. T. Urbanik, Texas Transportation Institute, which is consistent with the available data on roadway capacity reduction during adverse weather. However, it should be noted that this change in capacities does not affect the evacuation time estimates because of the low population density at Byron. This item is closed.
- e. (Closed) Open Item Nos. 454/84-00-03; 455/84-00-03; and License Condition 2.C.11.c: Provide information to emergency planning officials, particularly the Illinois Department of Nuclear Safety, which realistically reflects the average generic sheltering values of the structures in the Byron emergency planning zone. By letter dated October 12, 1984, from Mr. L. D. Butterfield, CECO, to Mr. D. Etchison, Director of the Illinois Department of Nuclear Safety, the licensee provided average sheltering factors for small and large structures. These attenuation factors were reviewed by the inspector and found to be consistent with guidance provided in SAND 77-1725 and EPA 520/1-78-001A which are both referenced in NUREG-0654, Revision 1, as documents to use to determine the average sheltering factor. In addition, the licensee also stated that the ratio of small to large structures should be 90:10, based on demographic considerations for the Byron EPZ. Based on the above, this item is closed.

3. Exit Meeting

Mr. M. Phillips contacted Mr. R. Querio by telephone on January 2, 1985, to provide the findings regarding the status of emergency preparedness-related open items and license conditions. The inspector summarized the scope and findings of the inspection, namely, that all Open Items had been closed, and the only License Condition remaining related to adequate progress in completion of a formal 44 CFR 350 finding on offsite preparedness.