

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-440/86004(DRSS); 50-441/86002(DRSS)

Docket Nos. 50-440; 50-441

Licenses No. CPPR-148; CPPR-149

Licensee: Cleveland Electric
Illuminating Company
Post Office Box 5000
Cleveland, OH 44101

Facility Name: Perry Nuclear Power Plant

Inspection At: Perry Site, Perry, OH

Inspection Conducted: February 5-6, 1986

Inspectors: W. *W. Snell* Snell

2/21/86
Date

T. Allen
T. Allen

2/21/86
Date

Approved By: *T. Phillips for*
M. Phillips, Chief
Emergency Preparedness Section

2/21/86
Date

Inspection Summary

Inspection on February 5-6, 1986 (Reports No. 50-440/86004(DRSS);
50-441/86002(DRSS))

Areas Inspected: Special, announced inspection of the Perry Nuclear Power Plant regarding the activation of the emergency plan as a result of an earthquake on January 31, 1986. The inspection involved 12 inspector-hours onsite by two NRC inspectors.

Results: No violations, deficiencies or deviations were identified.

DETAILS

1. Persons Contacted

- *D. Hulbert, Emergency Planning Coordinator
- *J. Anderson, Emergency Planning Assistant
- W. Coleman, General Superintendent, Community Relations
- B. Miller, Shift Technical Advisor

*Denotes those present at the exit interview on February 6, 1986.

2. Activation of Emergency Plan Due to Earthquake on January 31, 1986

a. Detection, Classification and Resource Augmentation

The earthquake was felt by onsite Perry Nuclear Plant personnel, including Control Room personnel, at 1148 EST. According to the Unit 1 - Unit Log, there was a "large noise and vibration." The initial reaction of Control Room personnel was that the "B" Auxiliary Boiler had probably exploded since it was undergoing testing. From subsequent communications, and the fact that seismic alarms were received on P680 and P696, Control Room personnel concluded that it was in fact an earthquake. At 1155 the Shift Supervisor made an announcement to the plant over the Public Address (PA) System that an earthquake had occurred. Throughout this initial period following the earthquake, discussion revolved around whether the Emergency Plan should be activated or not. Some personnel felt it was not necessary since the plant was not licensed, and therefore under no obligation to do so. However, the on duty Shift Supervisor made the decision to activate the Emergency Plan because it was the best way to augment and direct the staff and resources necessary to address the incident. This decision led to sounding the plant emergency alarm at 1201 and declaring evacuation and accountability in effect at 1206 for all personnel. The Shift Supervisor also called for the activation of the Technical Support Center (TSC) and Operational Support Center (OSC) over the plant PA system. An attempt was made by the Secondary Alarm Station (SAS) at 1215 to staff the TSC and OSC by activating the pager system. However, when SAS attempted to activate the pager system it turned out to be inoperative. Personnel who responded to the TSC and OSC did so per the PA announcements. The pagers are normally activated by SAS via a VAX computer system. As it turned out, the personnel who normally man the computer facility continuously left the plant when the evacuation alarm and announcement were made. To prevent unauthorized access to the system until they could return, they "locked out" all other persons, which included SAS. This prevented SAS from being able to activate the computerized portion of the pager system. Instead, all pager activations had to be carried out manually by dialing each person individually.

The Emergency Operations Facility (EOF) and Joint Public Information Center (JPIC) were not activated. However, the Public Affairs staff did activate their onsite Emergency Response Team to handle press releases and public inquiries.

There was no clear information available as to the decision and timing of declaring the Site Area Emergency. The seismic alarms in the Control Room, P680 and P696, are not relateable to the Emergency Action Level (EAL) for an earthquake as specified in the Emergency Procedures. (This lack of correlation is being tracked as an Open Item in IE Inspection Report No. 440/86006.) A non-duty Shift Technical Advisor (STA) who came to the Control Room following the earthquake stated that he told the Shift Supervisor that, based on his training, he interpreted the lights that were lit on the seismic alarm P696 to mean they had exceeded a Safe Shutdown Earthquake (SSE). The "Indication" criteria for the earthquake EAL in the procedures specified that an earthquake above SSE levels was a Site Area Emergency. It was uncertain whether this was the basis for the declaration of the Site Area Emergency or only a contributing factor since none of the log books reviewed specifically addressed the basis for the declaration. (The on duty Shift Supervisor at the time of the earthquake was unavailable during the inspection.) The only thing that is certain is that the Site Area Emergency was declared prior to 1257, when offsite notifications to this effect were made.

Based on the above findings, the following will be tracked as an Open Item:

- Actions or procedures should be initiated to ensure that SAS will always have access to the VAX computer for activation of the pager system. (Open Item No. 440/86004-01, No. 441/86002-01).

b. Notifications

Initial notifications were made at 1225 to Ashtabula, Geauga and Lake Counties. The NRC was notified at 1230, the Coast Guard at 1235 and the State of Ohio at 1240. The licensee stated that even though they had activated the emergency organization, because they were not a licensed facility, they did not feel an obligation to carry out the offsite notifications within the normally required time constraints (15 minutes for the initial notification.) It was noted that none of the initial notifications stated that a Site Area Emergency had been declared. In fact the first page of the Initial Notification Form that was used to transmit the initial message, stated that it was prepared for a Site Area Emergency. However, the second page, which the communicator reads from to pass the information, had the Site Area Emergency words circled, and then crossed out. Below it was written, "Experienced an earthquake of approximately .15g. No damage to site and no personnel injuries. The fuel and sources onsite are in a safe condition and a press release will be issued." This supports the apparent uncertainty at the time of the appropriateness to declare the Site Area Emergency.

Followup notifications were made to the three counties and the State of Ohio at 1257. This notification stated that the plant was in a "precautionary" Site Area Emergency. Immediately following these notifications, the decision was made to downgrade to an Alert. This delayed the followup call to the NRC until 1310, following calls back to the State and counties at 1303. The 1310 call to the NRC was the first information that the NRC had that a Site Area Emergency had been declared. It was also noted by the inspectors that all the notification forms specified that the Site Area Emergency had been declared at 1148, the time of the earthquake.

Based on the above findings, the following items are recommended for improvement:

- Whenever an emergency is classified, log books should clearly state the time and basis for the decision.
- Personnel should be trained that it is incorrect to use the time at which an incident occurs as the time of the declaration of the emergency class.

c. Evacuation and Accountability

Approximately 2000 people were evacuated from the Perry Plant. Evacuation and accountability was initiated at 1206 and completed at 1304 with 54 people unaccounted for. A recheck of sweep areas, badge racks and lists accounted for these 54 people, and all personnel were allowed to return to the plant at 1315.

Several factors contributed to the excessive time (one hour vs a goal of 30 minutes) to evacuate and account for personnel. The first was that the card reader computer system was out-of-service due to undergoing computer software changes. This is the system that is normally used to account for personnel when they leave the plant. Without this system security personnel had to manually search badge racks for missing badges to account for personnel. In addition, there were some problems with audibility of the PA system. The applicant stated that some personnel failed to hear the siren or followup messages and were subsequently asking security what they should do. The applicant stated that they did have an informal commitment to maintain and check PA speakers, but it was not being vigorously followed. (The NRC is already tracking the problems of audibility in high noise areas under Bulletin Item No. 440/78018-BB, 441/79018-BB).

Another problem area that contributed to the delays in evacuation were lack of training and procedures for the security personnel. Since the applicant adequately demonstrated in September 1985 their ability to evacuate and account for all personnel within 30 minutes, they have changed security contractors. The new contractor security force has not been completely trained. Training is scheduled for

completion by March 5, 1986. Since security is required to sweep areas to ensure all personnel have left, confusion arose among security personnel who had not been trained on their responsibilities in conducting these sweeps. In addition, while the previous contractor had procedures to address these sweeps, according to the applicant the new contractor procedures were incomplete in this regard.

Based on the above findings, the following will be tracked as an Open Item:

- Training and procedures should be adequate for security personnel to carry out their duties and responsibilities during an evacuation and accountability. (Open Item No. 440/86004-02, No. 441/86002-02).

3. Summary

The overall assessment of the applicant's performance from an emergency preparedness perspective as a result of the January 31, 1986 earthquake was good. Although under no obligation to activate the emergency organization, Perry did so. This enabled them to augment all resources and staff necessary to respond to the earthquake. Although a number of problems were identified, these were not indicative of any major programmatic concern, and all are correctable. It is also noted that the applicant had already identified all the problems and concerns raised by the NRC in the course of this inspection.

4. Exit Interview

The inspectors held an exit interview on February 6, 1986 with the representatives denoted in Section I. The NRC discussed the scope and findings of the inspection. The licensee was asked if any information discussed during the exit was proprietary. The licensee responded that none of the information was proprietary.