

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-461/89035(DRSS)

Docket No. 50-461

License No. NPF-62

Licensee: Illinois Power Company
500 South 27th Street
Decatur, IL 62525

Facility Name: Clinton Nuclear Power Station, Unit 1

Inspection At: Clinton Site, Clinton, Illinois

Inspection Conducted: November 13-17, 1989

Inspectors: *W. Snell for*
J. Foster
Team Leader

12/7/89
Date

Accompanying Personnel: D. Barss

Approved By: *W. Snell*
W. Snell, Chief
Radiological Controls and
Emergency Preparedness Section

12/7/89
Date

Inspection Summary

Inspection on November 13-17, 1989 (Report No. 50-461/89035(DRSS))

Areas Inspected: Routine, announced inspection of the following areas of the Clinton emergency preparedness program: followup on actual emergency plan activations (IP 92700); and operational status of the emergency preparedness program (IP 82701). The inspection involved two NRC inspectors.

Results: One violation, regarding retraining of individuals assigned responsibilities in the Emergency Response Organization, was identified during this inspection. Other areas of the emergency response program were well maintained, with some significant improvements to the program presently in the planning stages. Minor enhancements to the program have been made since the last inspection.

DETAILS

1. Persons Contacted

J. Perry, Assistant Vice President
*D. Waddel, Director, Emergency Response
*R. Gardner, Supervisor, Emergency Planning
*J. Weaver, Director, Licensing
*W. Yaroz, Supervisor, Emergency Exercises
*R. Wyatt, Manager, Nuclear Training
*R. Kerestes, Director, Engineering
*R. Campbell, Manager, QA
*J. Miller, Manager, SOM
*G. Bell, Director, Material Management
*D. Morris, Director, Plant Operations
*M. Hollow, Technical Advisor, NPAG
*J. Greenwood, Soyland Co-op Representative
J. Brownell, Project Engineer/Specialist

*Denotes those personnel listed above who attended the exit interview on November 17, 1989.

The inspector also contacted other members of the licensee's staff during the course of the inspection.

2. Emergency Plan Activations (IP 92700)

Licensee and NRC records of actual emergency plan activations for the period January 1989 through November 1989 were reviewed. During this time period the licensee had one Unusual Event, and an event which was initially declared as an Unusual Event and then rapidly escalated to an Alert.

On January 2, 1989, an Unusual Event was declared due to initiation of a reactor shutdown per Technical Specification requirements. NRC records indicated that proper notifications had been made. A review of the Technical Specification indicated that a typographical error had been inadvertently included. Information regarding this event was also submitted as Licensee Event Report (LER) No. 89-002-00.

On June 1, 1989, at 0045 hours, with reactor power at approximately 40%, Control Room Operators noted a pressure drop on the seals for reactor recirculation pump "B". Operators then checked the drywell floor drain sump flow and found it to be greater than 5 gallons per minute (GPM)

At 0055 hours, the Shift Supervisor declared a Notification of Unusual Event due to unidentified primary leak rate greater than five GPM. This declaration was in accordance with the licensee Emergency Action Level scheme contained in Emergency Plan Implementing Procedure EC-02.

At 0056 hours, the drywell drain flow rate had increased to 50 GPM. At 0100 hours, the Shift Supervisor properly declared an Alert, again per Procedure EC-02, based on the increased leak rate.

At 0110 hours, the State of Illinois was notified of the Unusual Event and subsequent Alert. The NRC Operations Center was notified of the event at 0140 hours. The NRC Resident Inspector was also notified.

At 0140 hours, after isolating recirculation pump "B", the leak rate decreased to less than 5 GPM and the Shift Supervisor degraded the emergency classification to an Unusual Event. The Control Room Operators then commenced a normal plant shutdown. At 0350 hours, the event was terminated.

In accordance with Licensee Procedure AP-03, Emergency Records Retention, the licensee has assembled a package for this event which included the following documents: Nuclear Accident Reporting System (NARS) messages from both the State and utility, event notification worksheets, excerpts from both the Control Room Operator's and the Shift Supervisor's Logs, copies of emergency logs from the Technical Support Center (TSC), Operational Support Center (OSC) and the Joint Public Information Center (JPIC), habitability surveys for the TSC, OSC, and Main Control Room (MCR), OSC personnel muster logs, emergency response facility activation and personnel checklists, Clinton Power Station Condition Reports, Licensee Event Reports, event critique reports, Emergency Response Organization (ERO) notification logs and copies of JPIC news releases.

A review of these documents indicated that the licensee had appropriately classified the event in accordance with approved procedures (EC-02) and made the necessary notifications within the established time requirements.

Two extensive critiques of this event were conducted. One focused on the operational matters of concern and the other addressed the emergency planning aspects. These critiques were reviewed by the NRC Senior Resident Inspector, who had provided additional comments (additional information is included in NRC Inspection Report No. 50-461/89021). From the critiques and NRC comments, the licensee identified a total of 19 emergency planning problems. Each of these problems was separately analyzed to determine the probable cause and an appropriate corrective action. Corrective actions on these items have either been completed or appropriately monitored on the licensee's Centralized Commitment Tracking (CCT) system.

The EP staff's evaluation of records associated with the single emergency plan activation was thorough, including documentation of any identified problems and associated corrective actions.

Based upon the above findings, this portion of the licensee's program was acceptable.

3. Operational Status of the Emergency Preparedness Program (IP 82701)

a. Emergency Plan and Implementing Procedures

By letter dated November 21, 1988, the licensee submitted a proposal to revise a number of the Emergency Action Levels (EALs) by deleting those initiating conditions defined as non-emergency events in 10 CFR 50.72, "Immediate Notification Requirements for Operating Nuclear Power Reactors." The proposal was innovative and matched an industry initiative then being developed by the Nuclear Utilities Management and Resource Council (NUMARC). Approval of the proposed revisions to the Clinton EALs was postponed pending review and comment on the NUMARC submittal to the NRC. NRC Headquarters currently has this issue under review.

The proposed EALs had undergone onsite and offsite technical review prior to submittal. Offsite agencies requested that, if the changes were implemented, they continue to be notified if the events previously leading to an Unusual Event occurred. The licensee indicated that these EALs would not be proceduralized until any significant NRC concerns have been resolved.

Based upon the above findings, this portion of the licensee's program was acceptable.

b. Emergency Response Facilities (ERFs), Equipment, and Supplies

The Emergency Operations Facility (EOF), Technical Support Center(TSC), and Operations Support Center (OSC) are dedicated facilities at this site. Each was toured and was clean and ready for use and was as described in the Emergency Plan and relevant EIPs. The Emergency Notification System (ENS) "Red Phone" to the NRC Duty Officer was tested in the TSC, Control Room, and EOF, and functioned well.

In the EOF, new touchtone telephones have replaced older equipment.

A visit was made to the Control Room, and it was verified that current copies of the Emergency Plan and Emergency Plan Implementing Procedures were available.

In the TSC, new tables and chairs have replaced older equipment. A computer terminal is now available for drill or exercise Safety Parameter Display System (SPDS) displays. It was noted that, as during the November, 1988, inspection, various electrical wires/cables still remain on the TSC floor, covered with tape. The tape securing the wires/cables is now a bright blue, making the installation less of a trip hazard, although relocation of the wires/cables would be preferable. Discussion with licensee personnel indicated that it is not currently planned to relocate these wires to other locations.

In the OSC, new tables and chairs have also replaced older equipment. The storage cabinets containing emergency response equipment were inspected. In general, the equipment appeared in good working order, within acceptable calibration dates, and in acceptable quantities. However, eight Teledyne Model 211 "Big Beam" lanterns, which utilize two lantern batteries, were found to have totally depleted batteries. One battery had considerable leakage into the lantern, and two nearby boxes of standard "D" cells (marked as tested October 3, 1988) were suspect due to having one or more severely deteriorated batteries. In another cabinet were supplies (two boxes of twelve each) of lantern batteries which appeared functional, and additional supplies of standard "D" cells were on hand. Twelve additional lanterns, Model No. 108, single battery, were found to be functional.

It appeared that the degradation of the "Big Beam" lantern batteries may have been due to trickle discharge through the lantern circuits, and these batteries might benefit from storage outside of the lanterns. In any case, improved surveillance and rotation of battery supplies is needed.

It was also noted that the trauma kit contained a bottle of sterile water displaying an expiration date of October, 1989.

Discussion with EP personnel indicated that the problem of tracking/periodic replacement of perishable supplies contained in emergency kits had already been noted, and would be addressed by revising the inventory procedure to require identification of expiration dates; and, subsequently, these expiration dates would be entered into a computer database. The computer database would then be utilized for perishable supply tracking and periodic replacement as required. Work on the revised procedure had already been initiated. This was responsive to the inspector's concerns.

A tour was made of the facility designated to act as the Joint Public Information Center. The facility was modern and impressive, with excellent facilities to provide for emergency news communications and rumor control.

The backup EOF was inspected and determined to be in an adequate state of readiness. The facility is one of the better backup EOFs in NRC Region III. Discussion with licensee personnel indicated that due to needed corrective action identified during a drill, the layout of the backup EOF is being revised to accommodate the additional personnel which would result from the arrival of the NRC accident response team.

Review of completed checklists for the period January, 1989, through October, 1989, indicated all procedurally required periodic communications equipment checks, siren tests, first aid supplies

inventories, and inventories of Health Physics and office supplies reserved for use by emergency responders had been completed. Locations addressed in these checklists included: onsite emergency response facilities, site gatehouse, backup EOF, and community hospitals. Inventory checklists specified minimum quantities of items and required verification of the supplies' locations. Inventory procedures included provisions for conducting inventories after use of the supplies or following discovery of an unsealed supply container. Records reviewed indicated that all problems identified during inventories and communications equipment checks had been corrected in a timely manner.

Based upon the above findings, this portion of the licensee's program was acceptable.

c. Organization and Management Control

The overall Emergency Preparedness organization remains essentially unchanged from that in place during the previous routine inspection. The Director - Emergency Response is now Mr. Don Waddel, and he reports to the Manager - Licensing and Safety. The remainder of the organization consists of the Supervisor - Emergency Planning, the Supervisor - Emergency Exercises, two Emergency Planners and a Clerk/Typist.

Duties of the individuals in the Emergency Planning group have been better defined and responsibilities regarding the planning and exercise groups were more appropriately divided. At the end of August, 1989, the group began production of a monthly Emergency Response Performance Report which documents the monthly activities and trends progress towards achieving goals regarding drill attendance, number of open drill critique items, siren operability statistics, and number of hours for which drills were conducted. This report provides additional upper management cognizance of emergency preparedness activities.

The public information pamphlet has been replaced by a calendar which incorporates the same information as the pamphlet. The calendar is in the process of being printed and will be mailed to residents in the ten-mile Emergency Planning Zone.

Based upon the above findings, this portion of the licensee's program was acceptable.

d. Training

A special group had been formed to determine ways to motivate plant personnel to participate in the emergency response organization. This group had made several recommendations to management, with most recommendations being approved.

The Emergency Plan requires the following functional drills: monthly communications drills (communication checks), semiannual callout drill, annual medical drill, annual radiation monitoring drill, biannual health physics drill, and annual Post Accident Sampling (PASS) drill. An annual emergency exercise is also required. Preparation and conduct of these emergency drills are described in Procedure AP-04. Although not a commitment, the licensee also conducts several other types of individual facility and "integrated Emergency Response Facility" drills and an exercise "dress rehearsal" in preparation for the annual graded emergency exercise. Over thirty-five drills/exercises had been performed in 1989. Records indicated that all required EP drills had been successfully conducted, well critiqued, and adequately documented during 1989. Exercise/drill critique items had resulted in several corrective actions.

The Emergency Plan delineates initial training and annual retraining requirements in Section 5.4, and references a training matrix of required courses in Administrative Procedure AP-05. Discussion with licensee personnel indicated that an individual is generally not considered as qualified for an Emergency Response Organization position prior to completion of initial training and participation in a drill or exercise. The individual is then placed on a listing of ERO members.

However, there is no provision for removal of an individual from the ERO listing if they have not completed the required annual retraining. Additionally, the training department does not maintain a computerized system for tracking ERO retraining dates, but relies on the personal knowledge of one of the assigned training personnel to recognize if an individual had not completed annual retraining (utilizing an acceptable 12 to 15 month retraining period).

A random sample of 24 individuals was selected and training records reviewed to determine if they had completed all training requirements. Of these, two individuals had not completed required retraining in over 16 months. Several other individuals had not completed their retraining in over 12 months. This is a violation (No. 461/89035-01).

Two individuals, both assigned technical positions in the Emergency Operations facility, were interviewed regarding their emergency duties and responsibilities. Both were knowledgeable of their duties and the procedures applicable to their positions.

Annual Media briefing was scheduled for December, 1989, and the training for DeWitt County/Clinton Emergency Services emergency responders was scheduled for November 30, 1989.

Based upon the above findings, with the exception of the single violation, this portion of the licensee's program was acceptable.

e. Independent Reviews/Audits

Quality Assurance (QA) Department records of the 1989 audit of the Station's EP program were reviewed. All records were complete and readily available. Audit Q38-89-23, addressing Emergency Planning, was performed September 11-29, 1989. The post-Audit Conference was held on October 24, 1989, and the audit report was reviewed in draft form at the time of this inspection.

The audit concluded that, based on the activities observed, documentation reviewed and interviews with plant personnel and State and local support agency representatives, Emergency Planning was considered to be effective. The audit was comprehensive and included observation of an integrated drill involving the Technical Support Center, the Operations Support Center, the Emergency Operations Facility, the Joint Public Information Center, and the Headquarters Support Center. The audit resulted in six recommendations for program improvement and one audit finding regarding lack of objective evidence verifying that preventative maintenance of the meteorological tower had been performed during July and August, 1989. A similar finding was issued during last year's audit. The audit did not identify the retraining deficiency noted in Section 3.d of this report.

A supplement to Audit Report Q38-89-23 specifically addressed the results of the audit associated with offsite agency interfaces. State and local government agencies were contacted during the audit. Offsite agency representatives indicated that appropriate interfaces had been established and their questions and concerns had been addressed. Offsite agency interfaces were therefore judged to be effective, and the 1989 audit satisfied the requirements of 10 CFR 50.54(t) regarding review of the adequacy of the interface with offsite authorities.

Also reviewed was the 1989 annual review of the CPS Emergency Preparedness Program conducted in accordance with Corporate Nuclear Procedure 4.03, Emergency Preparedness Program. This annual evaluation was completed during the third quarter of 1989, and the report was finalized on October 2, 1989. The review encompassed the following documents which were reviewed for compliance with requirements, consistency, and identification of any necessary changes:

- NPS No. 4, Emergency Preparedness
- CNP 4.03, Emergency Preparedness Program
- GP 2.48, Clinton Power Station Emergency Response Coverage
- CPS Emergency Plan
- CPS Emergency Plan Implementing Procedures
- Illinois Plan for Radiological Accidents

In addition to the various program reviews described earlier, the the Emergency Planning Group undertook an intensive review of the entire Emergency Planning Program to establish short and long-term initiatives to improve the productivity of the group, the quality of emergency training, overall site emergency readiness, and the attitude of Emergency Response Organization members. The results of the group's review, documented via memo dated November 7, 1989, were forty-two individual initiatives. Some of these initiatives were minor in nature, and were already in the process of implementation.

Some initiatives were long-term goals which would take well over a year to accomplish. The effort appeared commerdable, including identifying areas which could be discontinued as unneeded and those which required more emphasis to improve the overall program.

Critiques from emergency drills and exercises conducted since the last review were also reviewed for identification of adverse trends. The comments developed as a result of the evaluation were considered minor in nature and would not adversely effect the successful implementation of the CPS Emergency Plan. Most of the changes related to organizational changes and minor enhancements which had occurred after the documents were approved.

Emergency Preparedness Action Lists track drill critique comments. Drill comments not resolved within two weeks are entered and tracked by the Centralized Commitment Tracking System. The majority of drill comments concerned either equipment or training, and it was again recommended that a long term goal be established to make Emergency Response Organization (ERO) training position specific.

Based upon the above findings, this portion of the licensee's program was acceptable.

4. Exit Interview (IP 30703)

On November 17, 1989, the inspector met with those licensee representatives identified in Section 1 to present the preliminary inspection findings. The licensee was advised that the majority of the emergency response program was well maintained, with some significant improvements to the program presently in the planning stages. Minor enhancements to the program were noted to have been made since the last inspection. One violation, regarding retraining of individuals assigned responsibilities in the Emergency Response Organization, was identified during the inspection.

The licensee indicated that none of the matters discussed during the exit interview were proprietary.