

February 3, 2000

Mr. Michael T. Coyle  
Site Vice President  
Clinton Power Station  
Illinois Power Company  
Mail Code V-275  
P.O. Box 678  
Clinton, IL 61727

SUBJECT: NRC CLINTON EMERGENCY PREPAREDNESS INSPECTION REPORT  
50-461/2000003(DRS)

Dear Mr. Coyle:

On January 6, 2000, the NRC completed an inspection at the Clinton Power Station. The enclosed report presents the results of that inspection. Based on these results, no violations of NRC requirements were identified.

Areas examined within your emergency preparedness program are identified in the report. Within those areas, the inspection consisted of a review of corrective actions for previously identified issues. The objective of the inspection effort was to determine whether activities authorized by the license were conducted safely and in accordance with NRC requirements.

We concluded that your staff implemented actions to correct previously identified issues in your emergency preparedness program. Specifically, the inspection indicated that corrective actions had been taken on a number of performance issues related to the March 10, 1999, evaluated exercise and other issues identified by the NRC in 1997 and 1998.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room (PDR).

M. Coyle

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

Sincerely,

***/RA/***

John A. Grobe, Director  
Division of Reactor Safety

Docket No. 50-461  
License No. NPF-62

Enclosure: Inspection Report 50-461/2000003(DRS)

cc w/encl: P. Hinnenkamp, Plant Manager  
M. Reandeu, Director - Licensing  
M. Aguilar, Assistant Attorney General  
G. Stramback, Regulatory Licensing  
Services Project Manager  
General Electric Company  
Chairman, DeWitt County Board  
State Liaison Officer  
Chairman, Illinois Commerce Commission

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-461  
License No: NPF-62

Report No: 50-461/2000003(DRS)

Licensee: Illinois Power Company

Facility: Clinton Power Station

Location: Route 54 West  
Clinton, IL 61727

Dates: January 4-6, 2000

Inspector: Robert D. Jickling, Emergency Preparedness Analyst

Approved by: Steven K. Orth, Acting Chief, Plant Support Branch  
Division of Reactor Safety

## **EXECUTIVE SUMMARY**

Clinton Nuclear Power Station  
NRC Inspection Report 50-461/2000003(DRS)

This inspection consisted of a selective review of areas within the licensee's emergency preparedness program. Specifically, the inspector reviewed the licensee's corrective actions associated with performance weaknesses identified during the 1999 emergency preparedness inspection and other problems identified by the NRC in 1998 and 1997. This was an announced, 3-day inspection conducted by one regional inspector.

- Corrective actions for the previously identified emergency preparedness issues were acceptable. The inspector determined that the licensee's emergency preparedness staff was effective in identifying and implementing corrective actions to resolve the previously identified NRC concerns. (Sections P8.1 - P8.8)

## Report Details

### IV. Plant Support

#### **P8 Miscellaneous EP Issues**

- P8.1 (Closed) Inspection Followup Item (IFI) No. 50-461/97999-05: During the NRC's 1997 Special Evaluation Team (SET) inspection, the team observed that two radiation protection technicians (RPTs) required more than a half hour to develop the on-shift dose assessment per the manual method procedure (identified in the December 5, 1997 report). Furthermore, the Clinton Power Station (CPS) anticipated that only one RPT would be available to perform the assessment on the back shift. The procedure, while providing a reasonable method, did not lend itself to timely results.

During observation of the May 6, 1998 emergency preparedness (EP) drill, the inspectors observed a similar problem when the responsible dose assessment individual was slow in providing a manual method dose projection due to unfamiliarity with the applicable procedure and the supplied Hewlett-Packard calculator (IFI No. 50-461/98009-08). However, this item was closed in NRC Inspection Report No. 50-461/98025 upon determination that the calculators had been upgraded and training had been emphasized for the manual method dose calculations.

During this inspection, the inspector observed an unannounced manual method dose calculation by the responsible Radiation Protection Shift Supervisor. This unannounced test demonstrated the individual's familiarity with the manual method procedure and resulted in appropriate dose projections within less than 20 minutes. This item is closed.

- P8.2 (Closed) IFI No. 50-461/97999-06: During the NRC's SET inspection, the team noted that the backup meteorological tower did not transmit data to the Technical Support Center (TSC). The licensee identified that the data was not being transmitted due to an equipment failure on the tower. The equipment was fixed, and the backup meteorological tower was returned to service. Additionally, the licensee demonstrated actual backup meteorological tower data transmission to verify data was available in the TSC. This item is closed.
- P8.3 (Closed) IFI No. 50-461/98003-12: Reliability of the ND-6685 computer. The NRC identified that the ND-6685 computer had experienced a number of hardware, procedural, and operating problems, as well as not being able to transmit radiological and meteorological data for extended periods of time. The licensee identified problems associated with the ND-6685 which included difficulty to repair the system due to limited availability of parts, year 2000 compliancy, system failures occurring more often than expected, and the human-to-machine interface requiring unique operation capabilities. The licensee's solution included removal of the ND-6685, installation of new servers and terminals, software update, and providing training for operators and administrators. The modifications were completed in mid 1999. No problems had been identified after the ND-6685 computer was removed. This item is closed.

- P8.4 (Closed) IFI No. 50-461/98025-01: During the October 5-9, 1998 routine EP program inspection, emergency medical kits in the Operational Support Center (OSC) were found to include deteriorated cold packs, expired dates on saline and distilled water containers, and an emergency oxygen kit which lacked the oxygen bottle. During this inspection, the inspector verified that the OSC's medical kits did not contain deteriorated cold packs, that expired saline and distilled water containers were replaced with current containers, and that the emergency oxygen kit (which was not required) was removed. The items listed by the NRC above were extra items that were not on the inventory list. To prevent recurrence, the licensee placed a sign in the OSC emergency response cabinets, directing persons conducting inventories to stock the cabinets only with the listed inventory items. The licensee anticipated that the sign would prevent extra items from being placed in the cabinets which could deteriorate or expire. This item is closed.
- P8.5 (Closed) IFI No. 50-461/99008-04: During the March 10, 1999 EP exercise, the NRC identified that there were inconsistencies describing the release status on Emergency Operations Facility (EOF) status boards, on a Nuclear Accident Reporting System (NARS) message form, and during an Emergency Manager briefing. The licensee initiated a Condition Report (CR) number 1-99-03-217-0, dated March 16, 1999, to define the terms "release" and "potential release" in the CPS Emergency Plan. Corrective actions included development of Emergency Response Guidelines (ERGs) to be used by emergency response organization members during declared emergencies. Included in the ERGs were the definition, discussion, and examples of an abnormal release. Training seminars were provided to TSC and EOF emergency response personnel involved with radiological releases from the station. This item is closed.
- P8.6 (Closed) IFI No. 50-461/99008-03: During the March 10, 1999 EP exercise, the NRC identified that EOF status boards maintenance was poor. The licensee initiated a CR, number 1-99-03-218-0, dated March 16, 1999, to address the issues identified by the NRC, exercise participants, and evaluators regarding the use of EOF status boards. Corrective actions included evaluating the information flow between the EOF, TSC, and OSC; making changes to the TSC Problems status board to improve the information communicated to the EOF; and conducting a seminar for EOF, TSC, and OSC emergency response personnel. The seminar included a discussion of status boards and changes and removal of status board information that was not needed.

Additionally, a critique from the August 1999 EOF/Joint Public Information Center (JPIC) Facility Drill, identified that the information on the Engineering status boards was timely and accurate; however, other status board maintenance, especially the Key Events and Issues status boards, were still needing improvement. Overall, the critique documented a marked improvement from the 1999 EP exercise. Corrective actions appeared appropriate and adequate to prevent recurrence. This item is closed.

- P8.7 (Closed) IFI No. 50-461/99008-02: During the March 10, 1999 EP exercise, the NRC identified an Exercise Weakness concerning the OSC staff's ineffective tracking and communication of the status of repair teams. The licensee initiated a CR, number 1-99-03-222-0, dated March 16, 1999, to address the NRC, exercise participants, and evaluators' concerns that the OSC Supervisor was not being kept informed of the status of repair teams.

Corrective actions included instructing the OSC Radiological Controls Coordinator to monitor communications to relieve the OSC Communicator from the burden of recording radiological data. Additionally, the OSC Communicator was instructed to monitor communications and to be proactive in supplying information to the TSC. Also, an individual will be assigned to record information communicated to the OSC to relieve the communicator from additional responsibilities. A job aid was developed for the repair teams which listed important items including how to communicate over the radio with the OSC. On July 27, 1999, the OSC key personnel had a meeting to improve OSC operations. Communications were formalized, and job aids were provided as guidance to repair teams and communicators. This item is closed.

- P8.8 (Closed) IFI No. 50-461/99008-01: During the 1999 emergency preparedness exercise, the NRC identified that the OSC inplant repair team dispatch timeliness needed improvement. The licensee initiated two CRs, numbers 1-99-03-219-0, dated March 16, 1999, and 1-99-11-033-0, dated November 4, 1999, to address the NRC, exercise participants, and evaluators' observations that the dispatch of OSC emergency repair teams did not meet the licensee's timeliness expectations.

The inspector reviewed the status of the licensee's efforts to address the above performance problem. Corrective actions taken included conducting a meeting with OSC and TSC emergency response organization positions to discuss team dispatch issues, clearly identifying team dispatch expectations, and removing barriers to the expectations. Additionally, an ERG was developed to provide guidance on "urgent teams", priority 1-5 teams, non-priority teams, and changing priorities. Also, the emergency plan implementing procedure EC-12, "Emergency Teams", was revised to clarify "urgent team" criteria and time expectations.

An OSC Management Seminar/Drill was conducted September 9, 1999, and a TSC/OSC Facility Drill was conducted August 27, 1999, to train emergency response personnel on the changes made. The August 27, 1999 drill critique indicated that team dispatches were well organized and coordinated. Special note was taken for dispatch of an "urgent team" which met the expectations with no major deficiencies noted. Corrective actions appeared appropriate and adequate to prevent recurrence. This item is closed.

## **X1 Exit Meeting Summary**

The inspector presented the inspection results to licensee management at the conclusion of the onsite inspection on January 6, 2000. The licensee acknowledged the findings presented. The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.



## **PARTIAL LIST OF PERSONS CONTACTED**

### Licensee

G. Baker, Manager, Nuclear Support  
K. Evans, Senior Emergency Planner  
P. Hinnenkamp, Plant Manager  
M. Reandean, Director, Licensing  
D. Smith, Director, Security and Emergency Planning  
M. Stickney, Supervisor, Licensing  
W. Yaroz, Supervisor, Emergency Planning

### NRC

C. Brown, Resident Inspector  
K. Stoedter, Resident Inspector

## INSPECTION PROCEDURES USED

IP 82701 Operational Status of the Emergency Preparedness Program  
IP 82301 Evaluation of Exercises for Reactor Plants  
IP 92904 Followup Plant Support

## ITEMS OPENED, CLOSED AND DISCUSSED

### Opened

None

### Closed

50-461/97999-05	IFI	Difficulty in performing dose assessment.
50-461/97999-06	IFI	Backup meteorological tower does not transmit data to TSC.
50-461/98003-12	IFI	Reliability of the ND-6685 computer.
50-461/98025-01	IFI	Problems with OSC emergency medical kits.
50-461/98008-01	IFI	Inplant team dispatch timeliness.
50-461/98008-02	IFI	Exercise Weakness, inplant team status not known.
50-461/98008-03	IFI	Status board maintenance in the EOF was poor.
50-461/98008-04	IFI	Need to clearly define when a release is occurring and when a potential release situation exists.

### Discussed

None

## LIST OF ACRONYMS USED

CFR	Code of Federal Regulations
CPS	Clinton Power Station
CR	Condition Report
DRP	Division of Reactor Projects
DRS	Division of Reactor Safety
EOF	Emergency Operations Facility
EP	Emergency Preparedness
EPIP	Emergency Plan Implementing Procedure
ERF	Emergency Response Facilities
ERG	Emergency Response Guidelines
IFI	Inspection Followup Item
JPIC	Joint Public Information Center
NARS	Nuclear Accident Reporting System
NPF	Nuclear Power Facility
NRC	Nuclear Regulatory Commission
NRR	Nuclear Reactor Regulation
OSC	Operational Support Center
PDR	Public Document Room
RPSS	Radiation Protection Shift Supervisor
RPT	Radiation Protection Technician
SET	Special Evaluation Team
TSC	Technical Support Center