

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-461/88012(DRSS)

Docket No. 50-461

License No. NPF-55

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: April 25-27, 1988

Inspectors: *W. Snell for*
James P. Patterson

5/13/88
Date

Marcia J. Smith
Marcia J. Smith

5/16/88
Date

William Snell

Approved By: *James Foster for*
William Snell, Chief
Emergency Preparedness
Section

5/18/88
5/16/88
Date

Inspection Summary

Inspection on April 25-27, 1988 (Report No. 50-461/88012(DRS))

Areas Inspected: Routine, announced inspection of the Clinton Power Station emergency preparedness exercise involving observations by three NRC inspectors of key functions and locations during the exercise (IP 82301).

Results: The licensee demonstrated an adequate response, in terms of facilities, procedures, and personnel performance, to a hypothetical accident scenario involving a radioactive release. No violations, deficiencies, deviations, Exercise Weaknesses, or Open Items were identified.

DETAILS

1. a. NRC Observers and Areas Observed

W. Snell, Control Room and Emergency Operations Facility (EOF)
M. Smith, EOF
J. Patterson, Technical Support Center (TSC) and Operational Support Center (OSC)

b. Illinois Power Company

W. Gerstner, Senior Vice President
D. Hall, Vice President
J. Perry, Manager-Nuclear Program Coordination
R. Freeman, Manager-NSED
F. Spangerberg, Manager-Licensing and Safety
R. Wyatt, Manager-Nuclear Training Department
S. Hall, Director-Emergency Response
R. Gardner, Supervisor-Emergency Planning
W. Yarosz, Supervisor-Emergency Exercises
T. Camilleri, Assistant Manager-Station Maintenance
J. Cook, Manager-NP&S
E. Kant, Director-Design Engineering
M. Lyon, Supervisor-License Training
W. Mangano, Supervisor-Rad Operations
D. Morris, Director-Outage Maintenance Programs
D. Hillyer, Assistant Manager-Plant Radiation Protection
R. Phares, Supervisor-Licensing Operations
K. Baker, Supervisor-l&E Interface
R. Richey, Technical Advisor-Maintenance
D. Schweickert, Supervisor-Compliance
J. Sipek, Supervisor-Plant Fire Protection
D. Smith, Assistant Supervisor-Security
J. Weaver, Director-Licensing
R. Morgenstern, Assistant Manager-Plant Technical
T. Roe, Assistant Supervisor-Mechanical
C. Hollon, Technical Advisor-Technical Assessment
D. Travis, Nurse
C. Patient, Nurse
L. Clark, Supervisor-Liquid Waste
J. Hunsicker, Supervisor-Computer/C&I Engineering
R. Kerestes, Director-Engineering Projects
S. Woody, Supervisor-Security
B. Paulsen, Media Relations Representative
R. Weber, Supervisor-Quality Engineering
D. Holtzsch, Director-Nuclear Safety
R. Trotter, Manager of Engineering
T. Madson, Supervisor-Legislative Affairs
D. Waddell, Project Manager-Simulator Support

All those personnel listed above attended the exit interview on April 27, 1988.

2. Licensee Actions on Previously Identified Items

- a. (Closed) Open Item No. 461/87003-01. The General Emergency was not declared in a timely manner during the 1987 annual exercise. This was a repeat of an exercise weakness identified in a previous exercise and resulted in the issuance of a Severity Level IV violation. During the 1988 annual exercise, the General Emergency was promptly declared by Emergency Operations Facility staff. Following the upgrading of the emergency classification to a Site Area Emergency, plant conditions that would require escalation to the General Emergency Classification were predetermined by the EAL/Protective Action Evaluator. This preplanning assured prompt recognition of the emergency action level and reclassification to a General Emergency. This item is closed.
- b. (Closed) Open Item No. 461/87003-02. Contamination control practices in the EOF Environmental Laboratory were inadequate during the 1987 annual exercise. This was a repeat of an exercise weakness identified in a previous exercise and resulted in the issuance of a Severity Level IV violation. During the 1988 annual exercise, the observed methods of contamination control practices were adequate. The inspector observed the analyzing of air and soil samples. Instrumentation, swipes and gloves were readily available. Sample bags were tied shut, and the technician used large scissors to open the double bags to obtain samples. Forms were readily available to record survey results. The technician closely monitored equipment, smears, samples, and himself. He demonstrated excellent contamination control practices by using proper procedures throughout the entire exercise. This item is closed.

3. General

An exercise of the Clinton Power Plant's Emergency Plan was conducted at the Clinton Station on April 26, 1988. The exercise tested the licensee's and offsite emergency support organizations' capabilities to respond to a simulated accident scenario resulting in a major release of radioactive material to the environment. An attachment to this report includes the scope and objectives of the exercise, initial conditions, and an exercise time line for key events.

The exercise was categorized as a partial scale event with limited participation by the State of Illinois and De Witt County. NRC Region III participated in this exercise, activating a base team and site team.

4. General Observations

a. Procedures

This exercise was conducted in accordance with 10 CFR Part 50, Appendix E requirements using the Clinton Power Station Emergency Plan and Emergency Plan Implementing Procedures.

b. Coordination

The licensee's response was coordinated, orderly, and timely. If the events had been real, the actions taken by the licensee would have been sufficient to permit the State and local authorities to take appropriate actions to protect the public's health and safety.

c. Observers

The licensee's observers monitored and critiqued this exercise along with three NRC observers and a number of Federal Emergency Management Agency (FEMA) observers. FEMA observations on the response of State and local governments will be provided in a separate report.

d. Exercise Critiques

A critique was held with the licensee and NRC representatives on April 27, 1988, the day after the exercise. The NRC discussed the observed strengths and weaknesses during the exit interview. In addition, a public critique was held in Decatur, Illinois on the same day to present the preliminary onsite and offsite findings of the NRC and FEMA exercise observers, respectively.

5. Specific Observations

a. Control Room (CR)

The CR staff functioned very efficiently and coordinated their efforts as a team to react quickly and correctly to scenario events. After identification of the sabotaged fuel oil in the Division I Diesel Generator (DG) Day Tank, the CR staff took prompt corrective actions which included: reviewing both their Emergency Action Levels (EALs) and 10 CFR Part 50.73 (reporting requirements for security events); notifying Security; and asking Chemistry to verify the contents of the fuel oil in the Division II and III DG Day Tanks to assure that there was no tampering with the fuel oil in those tanks.

From the vantage point of the CR, Security response to the sabotage event was very good. They responded very quickly to the CR's request's for information or to take specified actions. The plant was placed in a Security Alert and guards posted by the Division II and III DG's when the Shift Supervisor (SS) requested that they be guarded.

The CR continued to aggressively pursue the security event for quite some time, even after other significant events had occurred, such as the tornado striking the site. These actions included: ensuring the De Witt County Sheriff had been notified of the sabotaged fuel oil in the Day Tank; ensuring the responsible individual had been

apprehended; that Security determined his access level at the plant; what all his movements were at the site over the previous 24 hours; and whether he would admit to other sabotage.

The SS and Shift Technical Advisor (STA) had a good discussion over whether an Unusual Event or Alert should be declared as a result of the sabotage. They determined that the Alert would be appropriate; but the Controller stepped in and required that they limit the classification to the Unusual Event to keep within the scenario timeline. However, their initial decision to declare an Alert was later supported when NRC Region III activated their Incident Response Center. The NRC also felt the situation warranted an Alert.

The CR staff was quick to use plant procedures, emergency procedures and Technical Specifications. Logs were continually maintained and sufficiently detailed. The Load Dispatcher was also kept informed of changing plant conditions. The CR staff promptly responded to concerns raised by the NRC Senior Resident Inspector, in some instances taking actions based on these concerns. A dedicated communicator was quickly provided to maintain a continuous phone link with the NRC when requested. Phone communications were well maintained by the CR staff including using the prefacing statement of "this is a drill". The emergency classification was correctly upgraded to an Alert based on a fire in the 1C1 switchgear.

Notifications to the State via the NARs phone and to the NRC via the ENS phone were made within the required time limits and provided the required information for both the Unusual Event and the Alert. Transfer of command and control to the TSC was made smoothly and without problems. The SS then informed all CR staff that this transfer had occurred. Public Address announcements were made to plant personnel following the first two emergency declarations. No prompting or coaching was observed in the CR. The use of the simulator to drive actions and responses of the CR staff significantly increased the realism and learning potential of the exercise.

The overall performance of the CR in responding to the scenario events and in taking appropriate actions was considered to be very good.

b. Technical Support Center (TSC)

The TSC assumed command and control of the emergency after a good exchange of information between the Control Room SS and the Site Emergency Director (SED). It was evident from the TSC's official activation that the SED was receiving good support from the technical groups and the Health Physics (HP) group. With events occurring rapidly, such as lightning striking a transformer causing it to trip and burst into flames, a tornado destroying other transformers (resulting in a loss of offsite power), and tornado

debris ripping a large hole in the Secondary Gas Control Boundary and RCIC tank, the SED and his emergency response support staff had more than enough crises to handle.

The Site Area Emergency was declared based on the effects of the tornado strike after offsite power was lost for over 15 minutes. The initiation of evacuation/accountability through a public address announcement followed at once. All non-essential personnel were accounted for in less than 30 minutes, although, for exercise purposes this was only 50 individuals. Notifications were made to the State of Illinois and the NRC within the required time, and the NARS form was completed satisfactorily as reviewed by the inspector. However, it appeared that headsets would have been helpful to the dedicated communicators (the phones are not currently adaptable to head sets).

Briefings by the SED were frequent and highlighted major concerns. However, he could have involved the various support groups more directly by asking each group's team leader to give a brief synopsis of their corrective actions being undertaken to mitigate the emergency. By giving each support group a chance to provide input, or provide a dissenting opinion on a proposed fix, the support groups could have a greater sense of involvement in contributing to the decisionmaking.

With only a few exceptions, the status boards were well maintained. One posting had two different times for the Alert declaration. This was later corrected. The "Major Problems" status board should have included several more contributing events which occurred in the plant besides those already listed. Closer coordination between the SED's area and the person responsible for keeping this board current would have helped. The status board for tracking the Operational Support Center inplant teams was particularly effective and well maintained. Communications within the TSC plus those with the EOF were well maintained. The sound level within the TSC was rather high at times due to the large number of players, controllers, evaluators and three NRC participants, however, it was seldom a hindrance and was lowered on request from the Director's table.

At 1308 the SED declared his priorities in stabilizing plant conditions. These priorities were as follows:

- (1) Hook up the diesel generator, Division I. to the emergency reserve auxiliary transformer.
- (2) Repair the remaining auxiliary transformers.
- (3) Establish containment cooling.
- (4) Maintain containment integrity.

- (5) Plan for shift relief working through Rad Protection group for personnel access.
- (6) Prepare Post Accident Sampling System (PASS) to obtain a sample when onsite power is available.

This was a good example of management direction to clarify the main problems encountered and establish priorities for mitigating activities.

Dose assessment was satisfactorily demonstrated using manual calculations due to the onsite power loss which prevented use of the main frame computer. Containment dose rates as well as the iodine level for the Standby Gas Treatment System were trended.

Implementing procedures, engineering drawings, and logs were well utilized. The SED had a dedicated log keeper who recorded the entire history of TSC activities in a professional manner. Overall, the TSC personnel performed well, demonstrated good emergency skills, and coordinated their effort to curtail the emergency.

c. Operational Support Center (OSC)

The OSC management was well organized, decisive, and continually active in response to the TSC's requests, as well as other demands for emergency responses. Briefings given by the OSC Supervisor were frequent, short, and meaningful. His use of a "bull horn" to get better sound reception allowed the teams awaiting assignments to also be informed of plant conditions and major problems which involved the OSC. The OSC Dispatcher did an outstanding job at a very stressful emergency position. He maintained good communications with the teams in the various plant areas, provided good direction, and answered their questions.

The inspector accompanied one maintenance team on a task which involved opening the RHR-C injection valves. A good briefing was given to the team including the travel routes and individual exposure limitations. This team consisted of two maintenance personnel who had received basic radiation safety training, including use of radiation monitoring survey instruments. There was no accompaniment by an HP technician. The OSC Supervisor, after consulting with his HP Supervisor, decided when radiation exposure possibilities, including airborne contamination, would warrant sending an HP technician with the team. HP technicians were available in the OSC if radiation conditions warranted their services and were used on other assignments. This policy allowed the OSC to have more maintenance personnel for inplant assignments without using all their HP technicians on routine, low level radiation assignments.

After several attempts, including another team dispatched with a "cheater" bar and wrench, the Controller advised the team that they could not open the valves successfully. However, the team did demonstrate knowledge of the RHR valve system and how to repair it if conditions would allow. The team was suited in full anticontamination clothes and wore proper dosimetry. They asked the Controller periodically for radiation levels en route and at the plant area destination.

As observed, the OSC operations were dynamic, well coordinated, and those involved demonstrated a positive attitude in contributing their capabilities to mitigate the accident.

d. Emergency Operation Facility (EOF)

The EOF was activated in a timely manner. Sufficient procedures and equipment were available for personnel. The EOF staff was well trained, knowledgeable of their duties and responsibilities, and utilized their procedures effectively. Illinois Power personnel coordinated efforts with the NRC, Illinois Department of Nuclear Safety and Emergency Services Disaster Agency personnel, who were also located in the EOF. They were responsive to those agency's concerns and questions, but did not compromise their own duties and responsibilities. Status boards, with minor exceptions, were adequately maintained throughout the exercise and provided pertinent information. Management briefings in the EOF were excellent. NRC and State personnel were active participants in these briefings. The briefings were conducted quickly, focused on key issues, and enabled the Emergency Manager to effectively coordinate staff activities.

The EOF engineering staff maintained adequate communication with the TSC and were kept informed of all changes in key plant conditions in a timely manner. The engineering staff adequately trended plant conditions, particularly uncovering of the core. The General Emergency was promptly and properly declared based on a prolonged loss of cooling capability which could lead to the core being uncovered. The subsequent notification to the State was completed within 15 minutes, as required.

The position of the Vice President in the Clinton EOF is unique among the sites in NRC Region III. This position is that of observer of overall operations of the EOF, to identify and prevent any problems in the decision-making process of the EOF staff. It appeared to work effectively. An example of the effectiveness of this position occurred when Protective Action Recommendation (PAR) discussions were becoming muddled during the initial notification of the General Emergency to the State of Illinois, and the Vice President quickly stepped in and advised the staff that the initial notification should be transmitted immediately with the minimum protective action recommendations. An expanded recommendation, if necessary, could follow. This observation enabled the staff to get back on track and notify the State within the required time frame.

Considerable attention was given to forecast meteorology in the formulation of protective actions throughout the exercise. In all observed cases, the discussions were effective, thorough, and supported the final recommendation. Due to the simulated loss of the SR computer in the EOF, dose assessment calculations were carried out manually using Procedure RA-01, "Manual Radiological Dose Assessment." Although it appeared that the individual implementing this procedure was well trained and completed the calculations within the required 15 minutes, it would be prudent to consider placing this methodology on a small personal computer (PC). This would significantly speed up the turnaround time for completing the assessment, reduce the potential for error, and enable the assessor to devote time to other important tasks.

Actions were taken to provide relief personnel. These personnel were assembled at the Backup EOF located in Decatur before coming to the site due to concerns over potential plume exposures and/or contamination.

Offsite radiological monitoring teams followed their procedures, adequately inventoried their supplies, checked monitoring equipment, and issued dosimeters. The teams were promptly and effectively deployed and coordinated with the state's monitoring teams. The EOF Environmental Laboratory had a location off for field teams to drop off samples to be analyzed. The area was covered with yellow plastic and adequately supplied with monitoring equipment, gloves, and swipes and cloths. Samples were double bagged and relatively free of contamination. The technician adequately surveyed sample bags, the samples themselves, work areas, and himself throughout the analyzing process. The technician demonstrated excellent radiological control practices throughout the exercise.

The technician was able to determine the type of contamination in each sample but could not determine a quantitative amount due to the loss of the SR computer. A small programmed personal computer (PC) is recommended as a backup means to obtain quantitative values and thus verify the projected dose.

No prompting or coaching was observed in the EOF or the EOF Environmental Laboratory. Controllers adequately kept the exercise on track and promptly resolved issues as they occurred.

6. Scenario

This scenario was challenging; including a sabotage event which enabled security to become actively involved, a fire which required response by the fire brigade, an injury with potential contamination, and numerous additional inplant maintenance teams. The dose assessment/PAR portion of this scenario was also challenging based on a large fission product

inventory in containment, requiring significant offsite protective actions, even though the actual release was relatively low. This was accompanied by an ongoing wind shift that tested staff capabilities to recommend proper protective actions.

However, the original scenario submitted to the NRC should have been more complete at the time of submittal. Reactor data was missing, and the summary and timeline did not contain adequate information, such as specifying expected classifications and their bases, and providing a clearer explanation of the release pathway and expected offsite PARs.

7. Exit Interview

The inspectors held an exit interview the day after the exercise on April 27, 1988, with the licensee representatives denoted in Section 1. The NRC Team Leader discussed the scope and findings of the inspection. The licensee indicated that none of the information discussed during this meeting was proprietary.

Attachments:

1. Exercise Scope and Objectives
2. Summary of Events and Exercise
Time Line

INTRODUCTION

SCOPE OF PARTICIPATION

The Clinton Power Station Emergency Exercise will be conducted during normal working hours to demonstrate the integrated capability of Illinois Power Company to respond to a simulated emergency at Clinton Power Station (CPS). The State of Illinois will participate on a limited basis only and local governments will also participate. The Exercise is designed to test as much of the Clinton Power Station Emergency Plan as is reasonably achievable and on a limited scale, the Illinois Plan for Radiological Accidents.

Illinois Power Company (IPC) will participate in the CPS Exercise by activating the Emergency Response Organization and Emergency Response Facilities as appropriate, subject to limitations that may become necessary to provide for safe operations of the Plant.

In lieu of using the Main Control Room, the CPS Simulator Control Room will be used during the Exercise. Hereinafter, any reference to the Main Control Room implies the Simulator. An off-duty Main Control Room shift crew will be pre-positioned in the Simulator to receive Exercise Messages.

Illinois Power Company has established specific objectives and ground rules for the Exercise. These objectives and ground rules may be found later in this section. IPC has also limited its participation in some areas. The areas which will not be demonstrated during the Exercise are, but not necessarily limited to, the following:

1. Evacuation of non-essential personnel will not be necessary, and accountability will be limited to approximately fifty (50) Illinois Power Company personnel.
2. This scenario has a perceived fire internal to the plant creating a lot of smoke. The plant fire brigade will respond. However, no fire will be visually detected and assistance from the local volunteer Fire Department will not be required.

CLINTON POWER STATION
1988 EXERCISE OBJECTIVES

Primary Objective:

Demonstrate the capability to implement the Clinton Power Station (CPS) Emergency Plan in cooperation with the Illinois Plan for Radiological Accidents (IPRA) to protect public health and safety, and plant personnel.

Supporting Objectives:

1. Demonstrate the capability to quickly and accurately identify and classify accident conditions consistent with implementing procedures.
2. Once the emergency is classified or re-classified, demonstrate timely notification of the Illinois Emergency Services and Disaster Agency (IESDA), the Illinois Department of Nuclear Safety (IDNS) and the Nuclear Regulatory Commission (NRC) within the time required by implementing procedures.
3. Demonstrate the capability to properly notify IPC Emergency Response Organization personnel in accordance with implementing procedures.
4. Demonstrate the capability to activate the Technical Support Center (TSC), Emergency Operations Facility (EOF), Operations Support Center (OSC), Headquarters Support Center (HSC) and Joint Public Information Center (JPIC) in accordance with implementing procedures.
5. Demonstrate the clear transfer of Command Authority from the Shift Supervisor, to the Station Emergency Director, to the Emergency Manager in accordance with implementing procedures.
6. Demonstrate the capability to assess accident conditions by performing reactor core damage estimations and by performing offsite dose assessments.
7. Demonstrate the capability to dispatch and control Field Monitoring Teams.
8. Demonstrate the capability of Field Monitoring Teams to conduct field radiological surveys, including the collection and analysis of air samples for radioiodine, and to collect, as needed, additional liquid, vegetation and soil samples.

9. Demonstrate the capability of emergency workers to receive, analyze, and store field samples in the EOF Environmental Laboratory while following approved procedures and acceptable radiological controls.
10. Demonstrate the capability of the Operations Support Center to control emergency teams including emergency maintenance activities.
11. Demonstrate implementation of effective health physics controls by the emergency teams.
12. Demonstrate the capability to provide dosimetry and monitor radiation exposures to onsite emergency workers and Field Monitoring Teams.
13. Demonstrate the capability to effectively communicate reports, information and assessments of the situation among participating principal command and control centers, personnel and emergency teams.
14. Demonstrate the capability to make appropriate, timely public protective action recommendations to offsite authorities in accordance with implementing procedures.
15. Demonstrate timely, effective information flow from the Emergency Operations Facility (EOF) to the Joint Public Information Center (JPIC).
16. Demonstrate the capability to provide accurate, timely information to the news media from the JPIC in cooperation with governmental agencies.
17. Demonstrate the ability, through discussion, to implement appropriate measures for controlled recovery and re-entry.
18. Demonstrate the capability of the First Aid Team and Radiation Protection personnel to properly respond to an accident involving contaminated and/or injured personnel and to transport injured personnel to an offsite medical facility.
19. Demonstrate the capability to critique objectively the emergency response and identify deficiencies. This will require an evaluation of items such as (1) the operation of the Emergency Response Facilities, (2) suitability of individuals in fulfilling emergency assignments and (3) the adequacy of emergency procedures and equipment available.
20. Demonstrate coordination between the IPC Emergency Response Organization and the NRC Expanded Activation Site Team.

INITIAL CONDITIONS

The plant is presently operating at 100% power, at normal temperature and pressure, in Operating Condition 1.

DeWitt County and the surrounding area is under a severe thunderstorm warning and tornado watch until 5:00 p.m. today. Several funnel clouds have been spotted in Macon County. A severe thunderstorm is currently traveling through DeWitt County.

During a routine surveillance run of the Division I diesel generator, the diesel attained 900 RPM for two minutes and then quit running. Troubleshooting is in progress and preparations are underway to run Divisions II and III per technical specifications.

SUMMARY OF EVENTS

The operability test on Division II diesel generator produces satisfactory results. Further investigations on Division I Diesel by mechanical maintenance produces a thick translucent substance in the fuel lines and filter. Some material has hardened and some appears to be a thick epoxy-like substance. Fuel oil tanks show no contamination but each day tank drain appears to be clogged with the same substance. A security guard also reports workmen have found an obscene threatening note written on the bottom of Division I diesel day tank.

A lightning strike on the Emergency Reserve Auxiliary Transformer (ERAT) causes it to burst into flames and trip. The deluge system quickly extinguishes the fire but the ERAT is damaged beyond repair. Also as a result of the lightning strike, the Reserve Breakers on the Division III 4160 volt bus fuses causing a fire in the 1C1 switchgear. An injury occurs requiring transport to an offsite facility.

A funnel cloud is reported sighted over the city of Clinton traveling north. A tornado touches down on site and impacts the Unit Auxiliary Transformer/Reserve Auxiliary Transformer area, destroying the transformers causing a loss of offsite power. Flying debris impacts the secondary gas control boundary ripping a 2 ft X 10 ft long hole before penetrating the side of the Reactor Core Isolation Cooling (RCIC) tank. Water begins to pour from the RCIC tank at approximately 3000 GPM. The Reactor scrams due to the loss of power.

Division II diesel generator trips. Reactor water levels begin to decrease. The core becomes uncovered and a release occurs through the failed open ventilation dampers.

Division I diesel generator is restored to service. Recovery actions begin.

EXERCISE TIME LINE

<u>DRILL TIME</u>	<u>ACTUAL TIME</u>	<u>EVENTS</u>
T= -5 hrs	0300	Division I diesel generator fails.
T= -1 hr	0700	Severe thunderstorms passing through DeWitt County.
T = 0	0800	Sabotaged fuel oil discovered in Division I diesel. Notification of Unusual Event declared.
T= +0:45	0845	Lightning strike on ERAT. Fuses bus work on Division III bus. Fire occurs in the 1C1 Switchgear. Injury occurs requiring transport offsite. Alert declared.
T= +1:15	0915	Tornado impacts site. UAT/RAT destroyed. RT6, RT4, ET4 Buses destroyed. Hole in Secondary Gas Control Boundary. Hole in RCIC Storage Tank. Site Area Emergency declared. Suppression pool temp increasing 2 degrees/hr.
T= +2:05	1005	RCIC suction shifts to suppression pool on low water level. RCIC room temp increases to isolation temp (225 degrees). RCIC isolates. Boil off rate 400 gpm (2"/min).
T= +2:30	1030	Division II diesel bus frequency drops to 57 hz and slowly decreasing.
T= +2:45	1045	Division II diesel stops. Suppression pool temp increasing 20 degrees/hr.
T= +3:00	1100	VQ vent dampers discovered failed in the open position giving a release path. General Emergency declared.
T= +3:05	1105	An SRV sticks open causing a 15"/min water level drop.
T= +3:12	1112	Top of Active Fuel reached. Water Level dropping 4"/min.
T= +4:00	1200	Bottom of Active Fuel reached.

<u>DRILL TIME</u>	<u>ACTUAL TIME</u>	<u>EVENTS</u>
T= +5:00	1300	Division I diesel returned to service
T= +6:00	1400	Terminate drill Begin critique