UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

JAN 04 1991

Report No.: 50-261/90-28

Licensee: Carolina Power and Light Company
P. O. Box 1551
Raleigh, NC 27602

Docket No.: 50-261 License No.: DPR-23

Facility Name: H. B. Robinson

Inspection Conducted: December 3-6, 1990

Inspectors: W. M. Sartor, Jr., Team Leader — Date Signed 1/3/91

J. L. Kreh — Date Signed 1/3/91

Accompanying Personnel: T. Guilfoil (Battelle)

Approved by: W. H. Rankin, Chief — Date Signed 1/3/91
Emergency Preparedness Section
Radiological Protection and Emergency
Preparedness Branch
Division of Radiation Safety and Safeguards

SUMMARY

Scope:

This special, announced inspection was the observation and evaluation of a redemonstration exercise to demonstrate completion of corrective actions to a violation and weakness identified in the June 18, 1990 exercise. The violation was for failure to correct a weakness from the 1989 exercise for failing to staff the Technical Support Center and Operational Support Center in a timely manner. The weakness for the 1990 exercise was a failure to classify a General Emergency. The inspection also included a review of the Alert declaration on September 11, 1990.

Results:

The exercise was successful for demonstrating adequate corrective action. The performance of the emergency response organization also permitted closure of four outstanding exercise findings from the 1989 exercise. The licensee's performance was significantly improved from the previous exercise; however, additional training will enhance the corrective actions in many cases.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

*R. Barnett, Manager, Outage and Modifications
*C. Bethea, Manager, Training
*G. Bowen, Specialist, Technical Training
*R. Chambers, Unit 2 Operations Manager
*R. Crook, Senior Specialist, Regulatory Compliance
*J. Curley, Manager, Environmental and Radiation Control
*M. DiCerbo, Senior Specialist, Site Information Services
*C. Dietz, Manager, Robinson Nuclear Project Department
*J. Eaddy, Environmental and Radiation Control Supervisor
*M. Gann, Specialist, Emergency Prepardeness
*A. Garrou, Project Specialist, Corporate Emergency Preparedness
*E. Gates, Project Specialist, Site Information Services
*J. Gerald, Specialist, Health Physics and Chemistry
*M. Goodson, Specialist, Maintenance
*G. Graham, Project Specialist, Site Information Services
*E. Harris, Jr., Manager, Onsite Nuclear Security
*R. Howell, Senior Specialist, Quality Assurance, Quality Control
*J. Huntley, Project Specialist, Planning
*R. Indelicato, Project Specialist, Corporate Emergency Preparedness
*J. Kloosterman, Director, Regulatory Compliance
*E. Lear, Senior Mechanical Specialist
*G. McCoy, Material Control Supervisor
*M. Morrow, Senior Specialist, Emergency Preparedness
*T. Niemi, Project Engineer, Quality Assurance Engineering
*P. Odom, Project Specialist, Maintenance Support
*C. Oates, Maintenance Staff
*M. Page, Manager, Technical Support
*D. Quick, Manager, Plant Support
J. Sheppard, Plant General Manager
*R. Smith, Manager, Maintenance
*D. Stadler, Onsite Licensing Engineer
*D. Taylor, Director, Fuel Processing and Control
*M. Thompson, Manager, Emergency Preparedness and Spent Fuel Management Section
*A. Wallace, Operations Coordinator
*L. Williams, Supervisor, Emergency Preparedness/Security
*H. Young, Manager, Quality Assurance, Quality Control

Other licensee employees contacted during this inspection included operators, security force members, technicians, and administrative personnel.

Nuclear Regulatory Commission

*L. Garner, Senior Resident Inspector
*R. Lo, Project Manager, Office of Nuclear Reactor Regulation

*Attended exit interview

2. Exercise Scenario (82302)

The scenario for this redemonstration exercise was reviewed and determined to be adequate for demonstrating the objectives established for the exercise. Because of the limited scope of this exercise, the objectives addressed only six areas of exercise activities:

a. Accident Detection and Assessment
b. Emergency Classification
c. Notification of Onsite and Offsite Emergency Response Personnel
d. Communications
e. Staff Augmentation
f. Scenario and Exercise Control

The extent of participation further reduced the applicability of some of these areas. For example, the exercise was a utility only exercise with no participation from State and county emergency response agencies, nor from the Headquarters Communications Center and the Joint Information Center; therefore, the spectrum of communications was reduced. The above limitations also affected the notifications to off-site emergency response agencies.

No violations or deviations were identified.

3. Accident Assessment (82301)

This area was observed to determine that adequate methods, systems and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition were in use as required by 10 CFR 50.47(b)(9); 10 CFR 50, Appendix E, Paragraph IV.B; and specific criteria in NUREG-0654, Section II.I.

The accident assessment program included both an engineering assessment of plant status and an assessment of radiological hazards to both onsite and offsite personnel resulting from the accident. The degrading in-plant conditions were the emergency action level (EAL) used to determine the emergency classification and concomitant protective actions recommended to protect health and safety outside the site boundary. The scenario did not provide for a radiological release and the deployment and evaluation of offsite monitoring teams was not an objective of this exercise.

No violations or deviations were identified.

4. Emergency Classification (82301)

This area was observed to determine that a standard emergency classification and action level scheme was in use by the nuclear facility licensee as required by 10 CFR 50.47(b)(4); 10 CFR 50, Appendix E, Paragraph IV.C; and specific criteria in NUREG-0654, Section II.D.

An EAL scheme was used to promptly identify and properly classify the emergency that escalated to more severe emergency classes as the simulated emergency progressed. An inspector noted that the Shift Foreman in the control room exercise area was hampered by the lack of instrument panels to obtain data required for classifying the emergency. He was able to obtain the needed data from an exercise controller and promptly identified and properly classified the condition as previously stated; however, it was readily apparent that access to instrument panels, such as those available with the simulator, would significantly enhance this aspect of the exercise.

No violations or deviations were identified.

5. Notification Methods and Procedures (82301)

This area was observed to determine that procedures had been established for notification by the licensee of emergency response personnel and State and local response organizations and emergency personnel, and that the content of initial and followup messages to response organizations had been established; and means to provide early notification to the populace within the plume exposure pathway had been established as required by 10 CFR 50.47(b)(5); 10 CFR 50, Appendix E, Paragraph IV.D; and specific criteria in NUREG-0654, Section II.E.

The inspector observed the initial call-out of emergency response personnel which was conducted from the Drill Control Room. The call-out procedure as implemented successfully staffed the Technical Support Center (TSC) and Operational Support Center (OSC) in a timely manner. An inspector observed that the Shift Technical Advisor and the Control Room Communicator also activated the Emergency Operations Facility (EOF) along with the TSC and OSC at the Alert declaration without direction from the Site Emergency Coordinator. The effect of this on EOF activation is further discussed in Paragraph 8.

The contents of the initial and followup messages from the exercise were reviewed and found to be accurate and timely. During the exercise, the messages were reported to a licensee representative simulating the offsite communications link since offsite participation was not included. A review of the licensee's logs in the EOF indicated that protective action recommendations (PARs) and siren activation were properly simulated.

No violations or deviations were identified.

6. Emergency Communications (82301)

This area was observed to determine that provisions existed for prompt communications among principal response organizations and emergency personnel as required by 10 CFR 50.47(b)(6); 10 CFR 50, Appendix E, Paragraph IV.E; and specific criteria in NUREG-0654, Section II.F.

Communications among the licensee's emergency response facilities and emergency organizations were good. No onsite communications related problems were identified during this exercise. OSC repair team communications were not demonstrated during this limited scale exercise which had the OSC personnel participating only for initial staffing of the facility and then returning to refueling activities.

No violations or deviations were identified.

7. Staff Augmentation (82301)

This area was observed to determine that primary responsibilities for emergency response by the licensee had been specifically established and that adequate staff was available to respond to an emergency as required by 10 CFR 50.47(b)(1); 10 CFR 50, Appendix E, Paragraph IV.A; and specific criteria in NUREG-0654, Section II.A.

The inspector observed that emergency assignments were made to the licensee's emergency response organization (ERO) as personnel reported to the site in response to the pager system activation for this exercise. Sufficient personnel were available to fill required emergency response positions such that the OSC was activated in 30 minutes and the TSC was activated in 73 minutes. The EOF was activated approximately 72 minutes following the Site Area Emergency (SAE) declaration. Because the EOF personnel had received the beeper signal to respond following the Alert declaration, the licensee identified the activation time of the EOF as a deficiency during their critique. The deficiency emanated from the time the clock started for EOF activation. The inspector observed that the EOF appeared to be adequately staffed to have activated earlier than it did; however, there was no impetus to do so in the EOF as they were using the SAE declaration in lieu of the Alert declaration as their start time.

No violations or deviations were identified.

8. Scenario and Exercise Control

The licensee had established as an exercise objective "Provide a technically consistent scenario and demonstrate proper exercise control." The adequacy of the scenario was discussed in Paragraph 2. The inspector also observed that the licensee demonstrated proper exercise control. This was best illustrated by the initial delay of the exercise initiation. Because of the use of a room in the Training Building as the exercise Control Room, a security check had to be made of the room prior to its becoming part of the protected area along with the TSC. This check had to

be completed prior to exercise initiation; and the lateness of the security check resulted in a 30 minute delay from the published time line in the scenario. The licensee's controller organization was notified by the lead controller of the delay and it was coordinated in such a manner that all messages and data were promptly corrected and the revised exercise timeline created no problems.

No violations or deviations were identified.

9. Action on Previous Inspection Findings (92701, 92702)

   a. (Closed) Exercise Weakness (EW) 50-261/89-27-01: Failure to produce a technically consistent scenario to demonstrate proper exercise control.

      The scenario for this exercise was technically consistent and good exercise control was maintained by the controller staff.

   b. (Closed) EW 89-27-02: Failure of the Shift Foreman to recognize an initiating condition for a NOUE.

      During this redemonstration exercise, the Shift Foreman promptly recognized initiating conditions that were properly classified as an Alert and a Site Area Emergency; this open item is therefore closed.

   c. (Closed) Inspector Followup Item (IFI) 50-261/89-27-04: Considering placement of potassium iodide (KI) at the OSC and Control Room.

      In May 1990, the OSC and Control Room emergency kits were each stocked with 1000 KI tablets. Attachment 8.2 of procedure RST-003, "Emergency Kit Inventory, " Revision 16, dated May 23, 1990, displayed these additions to the subject supply inventories.

   d. (Closed) IFI 50-261/89-27-06: Considering manual actuation of the emergency mode of the TSC/EOF HVAC system when a significant release is known to be occurring.

      Although no explicit PEP revision was made to address the subject IFI, the inspector observed during the December 5, 1990 exercise that the Radiological Control Manager decided at about 7:00 a.m. to manually actuate the emergency ventilation mode (i.e., recirculation) at the TSC/EOF Building (simulated actuation).

   e. (Closed) EW 90-13-01: Failure to classify the General Emergency.

      The inspector observed during the December 5, 1990 exercise that the Site Emergency Coordinator consistently evaluated the degrading plant conditions against the EALs and made an appropriate General Emergency declaration.

f. (Closed) Violation 50-261/90-13-02: Failure to correct previous weakness of not activating TSC and OSC in a timely manner.

The license response dated August 20, 1990, was considered acceptable by Region II. The licensee identified key positions for augmentation of the ERO and instituted a "beeper" activated group call-out system for key positions of the ERO. During the December 5, 1990 redemonstration exercise, the TSC and OSC were fully activated in 73 minutes and 30 minutes respectively, thereby demonstrating the capability to fully activate the TSC and OSC within 75 minutes of an Alert declaration. Corrective actions stated in the licensee's response had been implemented.

10. Review of Alert Declaration on 9-11-90 (92702)

On September 11, 1990, at 8:50 a.m., a personnel error resulted in severance of a pressurized refrigerator line in the HVAC (heating, ventilation, and air-conditioning) equipment room for the Main Control Room, releasing Freon into the immediate area. The Shift Foreman declared a NOUE based on the existence of a toxic gas release into the Protected Area. However, the event was reclassified as an Alert at 9:46 a.m. following the belated recognition that the Freon release had occurred within a building designated as a Vital Area. The untimely declaration of the Alert was previously determined to represent a violation. A second violation (non-cited) in connection with the subject event concerned inadequate implementation of Procedure PEP-171 for notification of the State and county Emergency Operations Centers. Both of these violations, as well as further operational details, are discussed in Paragraph 5 of NRC Inspection Report No. 50-261/90-22.

11. Exit Interview

The inspection scope and results were summarized on December 6, 1990, with those persons indicated in Paragraph 1. The inspector described the areas inspected and discussed in detail the inspection results. The licensee did not identify as proprietary any of the material provided to or reviewed by the inspectors during this inspection. Dissenting comments were not received from the licensee.

Licensee management was informed that a previous violation, three EWs and two IFIs discussed in Paragraph 9 were closed during this inspection.

Attachment:
Objectives, Guidelines, and Master
Timeline

2.0 OBJECTIVES

A. ACCIDENT DETECTION AND ASSESSMENT

1. Demonstrate the ability to detect emergency accident conditions, assess and project radiological consequences, and formulate near term mitigating actions.

2. Demonstrate the adequacy of the Technical Support Center in providing accident assessment and mitigation, dose assessment, and communication/notification activities.

B. EMERGENCY CLASSIFICATION

1. Demonstrate the ability to identify and classify the emergency in accordance with the emergency plan and appropriate plant implementing procedures.

   a. Demonstrate the ability to properly classify a General Emergency, identified by the NRC as an exercise weakness (EW-50-261/90-13-01)

   b. Demonstrate the ability of a Shift Foreman to Recognize an initiating condition of an emergency, identified by the NRC as an exercise weakness (EW-50-261/89-27-02). The exercise weakness was originally identified as a failure to recognize a Notification of Unusual Event (NOUE). This redemonstration exercise scenario contains no NOUE initiating conditions and begins with an ALERT. Proper and prompt classification of the Alert initiating condition by the Shift Foreman will adequately demonstrate correction of this weakness.

C. NOTIFICATION OF ON-SITE & OFF-SITE EMERGENCY RESPONSE PERSONNEL

1. Demonstrate the adequacy of procedures for alerting, notifying, and mobilizing CP&L emergency response organization personnel.

2. Demonstrate the timeliness and adequacy of the information provided in the initial notifications to state and county agencies.

3. Demonstrate the ability to provide follow-up notifications to the state and county agencies.

4. Demonstrate the capability to make timely and accurate notifications to the Nuclear Regulatory Commission. Actual participation of the NRC Operations Center will be simulated.

D. COMMUNICATIONS

1. Demonstrate the ability to communicate between emergency response facilities.

2. Demonstrate that the radiological, meteorological, and process data transmittal to the Technical Support Center, Operations Support Center and Emergency Operations Facility is adequate.

E. STAFF AUGMENTATION

1. Demonstrate the ability to augment the on-shift emergency response organization within the time limits specified within the emergency plan and implementing procedures.

   a. Demonstrate adequate corrective action for a previous exercise weakness regarding inability to notify and activate the emergency response organization for the TSC and OSC in a timely manner (VIO 50-261/90-13-02).

2. Demonstrate that emergency response facilities (TSC, OSC, and EOF) can be activated in accordance with the emergency plan and procedures.

F. SCENARIO AND EXERCISE CONTROL

1. Provide a technically consistent scenario and demonstrate proper exercise control (EW-50-261/89-27-01)

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PRELIMINARY 1990 ANNUAL
EXERCISE GUIDELINES

A. ANNUAL EXERCISE DATES AND TIMES:

* The exercise will be initiated during the period between 0700 on December 4 and 0700 December 5, 1990. CP&L personnel will not have prior knowledge of the starting or stopping time of the exercise.

B. EXERCISE LOGISTICS:

* The time line for the 1990 emergency response redemonstration exercise for the H. B. Robinson nuclear facility is contained in Section 3.0 of the exercise package.

* The Control/Evaluation organization for this exercise is listed in Section 4.0 of the exercise package.

* The final controller meeting will be held at a location "off-site". This location will be the Landmark Inn.

* This exercise scenario is based upon a Radiation Monitoring System that was in existance in October, 1990. All procedure references in use during the exercise refer to that system.

C. METEOROLOGICAL CONDITIONS

* All meteorological data will be "simulated" during the exercise.

D. EXTENT OF PARTICIPANT ACTIONS:

* This exercise is a utility only exercise with no participation from state and county emergency response agencies.

* The Headquarters Communications Center (HCC) and Joint Information Center will not participate.

* The Control Room "playing" shift will be brought into the control room exercise area before the first event of the exercise.

* The RNPD Emergency response facilities to be activated during the exercise are the Technical Support Center (TSC), Operations Support Center (OSC), and the Emergency Operations Facility (EOF). Limited personnel from the Corporate Health Physics Section will participate.

* The TSC will be incorporated within the Protected Area prior to this exercise to facilitate use of the Drill Control Room in the TSC.

* Plant emergency response personnel (except Control Room) from the TSC, OSC and EOF will not be pre-positioned at their emergency response facilities.

* The exercise will commence with a simulated Plant condition requiring declaration of an "ALERT", escalating to a "GENERAL EMERGENCY".

* Initial and continuous RNPD Accountability procedures will be simulated.

* Evacuation of assembled personnel to off-site locations will be simulated.

* RNPD Emergency Call-Out procedures, beepers and/or manual notification systems will be performed.

* All activities initiated or performed by off-site governmental response agencies (state and county) will be simulated.

Table #1

CAROLINA POWER & LIGHT CO.

ROBINSON NUCLEAR PROJECT DEPARTMENT

EXERCISE BASICS

DATE: Unannounced BEGIN TIME: Unannounced END TIME: Unannounced

_____ ANNOUNCED EXERCISE XXX UNANNOUNCED EXERCISE

_____ FULL SCALE _____ PARTIAL PARTICIPATION XXX UTILITY ONLY

MAXIMUM EMERGENCY ACTION LEVEL

____ SITE AREA EMERGENCY ____ GENERAL EMERGENCY

	PARTICIPATION					NOTIFICATION		ACTIVATION			
	NOT INVOLVED	SIMULATED	LIMITED PLAY	FULL PLAY		PER PROCEDURE	SIMULATED	START/FINISH		ACTUAL	PRESTAGED
STATE OF SOUTH CAROLINA											
WARNING POINT/EOC:	●●●						●●●				
FEOC:	●●●										
COUNTIES:											
DARLINGTON WP/EOC:	●●●						●●●				
LEE WP/EOC:	●●●						●●●				
CHESTERFIELD WP/EOC:	●●●						●●●				
FEMA	@@@						@@@				
NRC:											
RESIDENT:	●●●					●●●					
REGION II:	●●●						●●●				
OPS. CENTER:	●●●						●●●				
RESPONSE TEAM:	●●●						●●●				

EOC = EMERGENCY OPERATIONS CENTER
FEOC = FORWARD EMERGENCY OPERATIONS CENTER
NRC = NUCLEAR REGULATORY COMMISSION
FEMA = FEDERAL EMERGENCY MANAGEMENT AGENCY

EXTBL1 11/8/90

Table #2

CAROLINA POWER & LIGHT CO.

ROBINSON NUCLEAR PROJECT DEPARTMENT

EXERCISE BASICS

DATE: Unannounced BEGIN TIME: Unannounced END TIME: Unannounced

_____ ANNOUNCED EXERCISE XXX UNANNOUNCED EXERCISE

_____ FULL SCALE _____ PARTIAL PARTICIPATION XXX UTILITY ONLY

MAXIMUM EMERGENCY ACTION LEVEL

____ SITE AREA EMERGENCY ____ GENERAL EMERGENCY

	PARTICIPATION					NOTIFICATION				ACTIVATION		
	NOT INVOLVED	SIMULATED	LIMITED PLAY	FULL PLAY		PER PROCEDURE	SIMULATED	START/FINISH		ACTUAL	PRESTAGED	
CP&L ON-SITE ERO:												
DRILL CONTROL ROOM:				●●●		●●●					●●●	(a)
TSC:				●●●		●●●				●●●		
OSC:			●●●			●●●				●●●		(b)
EOF:				●●●		●●●				●●●		
CP&L OFF-SITE ERO:												
BILL WEBSTER:				●●●			●●●					
HCC:	●●●						●●●					
JIC:	●●●						●●●					
OFFSITE SUPPORT:												
FIRE DEPT:	●●●											
AMBULANCE:	●●●											
BYERLY HOSPITAL:	●●●											
WILSON HOSPITAL:	●●●											
PHYSICIAN:	●●●											
LOCAL MEDIA:	●●●											

TSC = TECHNICAL SUPPORT CENTER

EOF = EMERGENCY OPERATIONS FACILITY

HCC = HEADQUARTERS COMMUNICATIONS CENTER

OSC = OPERATIONAL SUPPORT CENTER

JIC = JOINT INFORMATION CENTER

(a) A Control Room "playing shift" will be called into position prior to the rehearsal.

(b) Activate and then release mechanics, I&C and E&RC Technicians not involved in leadership roles.

EXTBL2 11/8/90

MASTER TIMELINE

TIME	EVENT
0345	PLANT AT 100% POWER
0400	A REACTOR TRIP SIGNAL IS INITIATED BY A REDUCED FREQUENCY CONDITION ON THE GRID THAT RESULTS IN AN OTDT TRIP SIGNAL. THE REACTOR DOES NOT TRIP BUT THE TURBINE TRIPS. AN ALERT CONDITION EXISTS.
0401	REACTOR IS TRIPPED MANUALLY FROM THE REACTOR TURBINE GENERATOR BOARD (RTGB)
0405	A LOW PRESSURE ALARM FROM THE CONTAINMENT EQUIPMENT HATCH PPS SEAL COMES IN INDICATING A PROBLEM WITH CONTAINMENT INTEGRITY.
0409	LOAD DISPATCHER CALLS TO INFORM THE CONTROL ROOM THAT FREQUENCY PROBLEMS WILL CONTINUE
0410	A START-UP TRANSFORMER TROUBLE ALARM COMES IN AT THE RTGB
0413	OPERATOR REPORTS HOT OIL IS THE CAUSE OF THE TRANSFORMER TROUBLE ALARM, THE ALARM LIGHT DOES NOT RESET
0418	BURNS SECURITY REPORTS A LARGE LEAK AT THE STEAM DRIVEN AUXILIARY FEEDWATER (SDAFW) PUMP
0420	MULTIPLE ALARMS ARE RECEIVED AT THE RTGB INDICATING THE LOSS OF THE START-UP TRANSFORMER. A SITE EMERGENCY CONDITION EXISTS. AN ALERT SHOULD BE DECLARED BY NOW. THE PLANT PA SYSTEM IS NOW OUT OF SERVICE.
0421	EMERGENCY DIESEL "B" TROUBLE ALARM IS RECEIVED AT THE RTGB INDICATING A POTENTIAL REASON FOR THE DIESEL NOT STARTING
0430	OPERATOR DISPATCHED TO INVESTIGATE "B" DIESEL TROUBLE REPORTS START FAILURE LIGHT AT THE ENGINE CONTROL PANEL AND AN UNSUCCESSFUL START ATTEMPT WHERE LOW FUEL OIL PRESSURE WAS OBSERVED
0438	600 GPM REACTOR COOLANT PUMP SEAL LEAK OCCURS. INDICATIONS OF A BREACH OF THE RCS AND CONTAINMENT (VIA RCS PRESSURE AND EQUIPMENT HATCH SEAL PRESSURE) WILL BE EVIDENT.

TIME	EVENT
0440	A SITE EMERGENCY SHOULD BE DECLARED BY NOW.
0448	I&C PERSONNEL REPORT THAT NITROGEN IS SUPPLIED TO THE STEAMLINE PORVS
0452	OPERATOR DISPATCHED TO START DS DIESEL REPORTS THAT IT IS RUNNING
0504	DS DIESEL OPERATOR REPORTS "A" CCW, "A" CHARGING, "D" SERVICE WATER PUMPS ARE RUNNING AND RECOMMENDS LOADING MCC-5 AND "A" BATTERY ON THE DS DIESEL
0510	OPERATOR REPORTS MCC-5 AND "A" BATTERY ARE LOADED ON THE DS DIESEL
0511	AN ALARM IS RECEIVED INDICATING THE LOSS OF "B" BATTERY (A-B BATTERY LOW VOLTS)
0515	OPERATOR DISPATCHED TO INVESTIGATE LOW BATTERY VOLTAGE ALARM REPORTS "B" BATTERY VOLTAGE IS SO LOW THAT THE INVERTER OUTPUT BREAKER HAS TRIPPED.
0520	THE TSC AND OSC SHOULD BE ACTIVATED BY NOW.
0555	THE EOF SHOULD BE ACTIVATED BY NOW.
0630	SEAL LEAKAGE INCREASES (TOTAL FAILURE)
0654	700 DEGREES ON THE CORE EXIT THERMOCOUPLES IS REACHED. WHEN THE TEMPERATURE REACHES 700 DEGREES, A GENERAL EMERGENCY CONDITION MAY EXIST DUE TO FUEL JEOPARDY COMBINED WITH A BREACH OF THE RCS AND CONTAINMENT.[1]
0658	REACTOR COOLANT SYSTEM EMPTIES AND THE CORE EXIT THERMOCOUPLE TEMPERATURES INCREASE RAPIDLY.

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[1] Declaration of a General Emergency at this early stage hinges on the interpretation of the PPS problem as Containment breach. EOP guidance states that conditions are assumed satisfactory until information otherwise is present. The total leakage in excess of Technical Specifications requirements is not measured by the Penetration Pressurization System (PPS), because the PPS is an early warning system. Technically, procedures allow for the Containment to be considered intact because the actual leakage rate will not be known. However, the AO will be reporting to the Control Room that a lot of air is escaping from the equipment hatch.

0700 A BUBBLE FORMS IN THE CORE.

0714 1100 DEGREES ON THE CORE EXIT THERMOCOUPLE IS REACHED. WHEN THE TEMPERATURE REACHES 1100 DEGREES, A **GENERAL EMERGENCY** CONDITION EXISTS DUE TO LOSS OF POWER TO THE E1 AND E2 BUSES AND THE CORE HAS BEEN UNCOVERED.

0716 THE "B" EMERGENCY DIESEL IS RETURNED TO SERVICE AND READY FOR LOADING

0718 THE "B" RHR PUMP IS LOADED ON THE EMERGENCY DIESEL.

0719 THE "C" SI PUMP IS LOADED ON THE EMERGENCY DIESEL.

0727 THE 3 & 4 HVH UNITS AND THE "C" CHARGING PUMP ARE LOADED TO THE EMERGENCY DIESEL.

0745 TERMINATE REDEMO EXERCISE.