APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION REGION IV

Inspection Report: 50-458/93-15

Operating License: NPF-47

Licensee: Gulf States Utilities P.O. Box 220 St. Francisville, Louisiana 70775

Facility Name: River Bend Station

Inspection At: St. Francisville, Louisiana

Inspection Conducted: May 10-14, 1993

Inspectors: D. Blair Spitzberg, Ph.D., Emergency Preparedness Analyst (Lead Inspector) Facilities Inspection Program Section

Jack M. Keeton, Reactor Engineer (Examiner), Operations

Approved:

Facilities aihe Murray, Chief, Facilit Inspection Programs Section

Inspection Summary

<u>Areas Inspected</u>: Routine, announced inspection of the operational status of the emergency preparedness program, including changes to the emergency plan and implementing procedures; emergency facilities, equipment and supplies; organization and management control; training; and internal reviews and audits. A regional inspection initiative was performed to evaluate your performance during a required unannounced off-hours emergency response organization callout drill.

Results:

- Changes to the emergency plan and implementing procedures had been properly reviewed, approved, and submitted to NRC (Section 2.1).
- Emergency response factories and equipment had been maintained in an excellent state of operational readiness (Section 3.1).
- A good number of trained staff had been assigned to the emergency response organization. The emergency planning organization was staffed with qualified and experienced personnel. An Inspection Followup Item

9306040324 930528 PDR ADOCK 05000458 9 PDR was opened to review the independence of audits performed of emergency preparedness under the new organizational structure (Section 4.1).

- The training organization has maintained an effective emergency response training program. Emergency response organization personnel had been trained in accordance with applicable station procedures (Section 5.1.1)
- The performance of operating crews during walkthrough evaluations was good. A weakness was identified for several problems observed with the execution of messages using the computer based Emergency, State, and Parish notification system (Section 5.1.2).
- The annual audit of emergency preparedness performed pursuant to 10 CFR 50.54(t) was of good scope and depth and utilized an audit team with excellent qualifications. Excellent audit findings were documented, and followup to the findings was prompt (Section 6.1).
- During an unannounced drill evaluated by the inspectors, the licensee's emergency response organization demonstrated the capability to staff and activate onsite and nearsite emergency response facilities during off-hours in a timely manner (Section 8.1).

Summary of Inspection Findings:

- Weakness 458/9206-01 was closed (Section 8.1).
- Exercise Weakness 458/9301-02 was closed (Section 8.2).
- Exercise Weakness 458/9301-03 was closed (Section 8.3).
- Inspection Followup Item 50-458/9315-01 was opened (Section 4.1).
- Weakness 458/9315-02 was opened (Section 5.1.2).

Attachments:

- Attachment 1 Persons Contacted and Exit Meeting
- Attachment 2 Operator Walkthrough Scenario Narrative Summary.

DETAILS

-3-

1 PLANT STATUS

During this inspection, the plant was in cold shutdown for maintenance.

2 EMERGENCY PLAN AND IMPLEMENTING PROCEDURES (82701-02.01)

The inspectors reviewed changes in the licensee's emergency plan and implementing procedures to verify that these changes had not decreased the effectiveness of emergency planning and that the changes had been reviewed properly and submitted to NRC.

2.1 Discussion

The inspectors determined that only one revision to the emergency plan (Revision 8) had been implemented since the previous inspection in this program area. The review and submittal of this revision had been conducted in accordance with Procedure EIP-2-101, "Periodic Review of the Emergency Plan." This procedure included the provisions for the conduct of reviews consistent with the requirements of 10 CFR 50.54(q). The inspectors reviewed letters of agreement with offsite response and support organizations referenced in the emergency plan and determined that they had been maintained current.

Since the previous inspection in this program area, a total of 27 implementing procedure changes contained in 8 submittals to the NRC had been implemented. The inspectors reviewed documentation of these changes and determined that they had been submitted to NRC within 30 days of the effective date of changes as required by 10 CFR Part 5C, Appendix E.V.

2.2 Conclusions

Changes to the emergency plan and implementing procedures had been properly reviewed, approved, and submitted to NRC.

3 EMERGENCY FACILITIES, EQUIPMENT, INSTRUMENTATION, AND SUPPLIES (82701-02.02)

The inspectors toured onsite emergency facilities and reviewed the licensee's emergency equipment inventories and maintenance to determine whether facilities and equipment had been maintained in a state of operational readiness.

3.1 Discussion

All onsite and nearsite emergency response facilities were observed to be orderly and operationally ready. Emergency equipment lockers and kits were confirmed to contain the specified supplies. The inspectors reviewed documentation which showed that response facilities and inventories of emergency equipment had been maintained as required by Prc_edure EPP-2-501, Revision 5 "Emergency Facilities and Equipment Readiness" and Procedure EIP-2-103, Revision 7, "Emergency Equipment Inventories." Periodic tests of communications equipment had been conducted as required by Procedure EPP-2-502, "Emergency Communications Equipment Testing." Emergency response organization pager tests had been conducted weekly as required.

The inspectors observed the activation of the emergency ventilation system in the Emergency Operations Facility. It was noted that upon activation, the flow was switched to the recirculation mode through a filter bank consisting of HEPA and charcoal filters. Periodic tests had been conducted of the activation of the emergency ventilation system, but no tests had been conducted on the performance of the emergency filtration system. Licensee representatives stated that procedures were in development that would cause the periodic testing of the performance of the emergency filtration system in the Emergency Operations Facility.

3.2 Conclusions

Emergency response facilities and equipment had been maintained in an excellent state of operational readiness.

4 ORGANIZATION AND MANAGEMENT CONTROL (82701-02.03)

The inspectors reviewed the emergency response organization staffing levels to determine whether sufficient personnel resources were available for emergency response. The emergency planning organization was reviewed to ensure that an effective programmatic management system was in place.

4.1 Discussion

No changes had been made to the structure or positions of the emergency response organization since the previous inspection. The duties and responsibilities of the positions had been clearly defined in the emergency plan. A review of the emergency response organization staffing assignments which had been updated quarterly showed that a good number of trained staff members had been assigned to each position.

The emergency planning staff had remained constant since the previous inspection with a qualified and experienced staff. The inspectors reviewed Procedure EPP-2-201, "Emergency Planning Organization and Responsibility," Revision 3. and found that duties and responsibilities of the emergency planning staff were clearly defined. The staff consisted of a supervisor of emergency planning, four emergency planners, and a full-time clerk.

About a month prior to the inspection, an upper-level reorganization was implemented in the licensee's organization. Among the changes made to the facility organization were two changes effecting emergency preparedness. The emergency planning organization was placed under a newly titled Manager of Safety Assessment and Quality Verification. This manager reported to the vice president. Previously, emergency planning reported to the General Manager, a position which was eliminated with the reorganization. The second change effecting emergency preparedness involved the Quality Assurance organization which is responsible for performing independent audits of emergency preparedness as required by 10 CFR 50.54(t). With the reorganization, the Quality Assurance organization was placed under the Manager of Safety Assessment and Quality Verification. The inspectors expressed concern to licensee representatives as to whether the Quality Assurance organization under the new organizational structure would have sufficient independence in conducting audits of emergency preparedness to meet the requirements of 10 CFR 50.54(t). Since no audits of emergency preparedness had been conducted since the reorganization, the inspectors found no information with which to evaluate this concern. This issue will be reviewed during a future inspection as an Inspection Followup Item (458/9315-01).

4.2 Conclusions

A good number of trained staff had been assigned to the emergency response organization. The emergency planning organization was staffed with qualified and experienced personnel. An Inspection Followup Item was opened to review the independence of audits performed of emergency preparedness under the new organizational structure.

5 TRAINING (82701-02.04)

The inspectors reviewed the emergency response training program and interviewed selected individuals to determine whether emergency response personnel were receiving the required training to be in compliance with the requirements of River Bend administrative procedures, 10 CFR 50.47(b)(15), 10 CFR Part 50, Appendix E.IV.F., and the emergency plan.

5.1 Discussion

5.1.1 Training Program

The program for training and qualification of emergency responders was specified in procedure EIP-2-102, "Training, Drills, and Exercises. Qualification included required classroom training and practical experience provided by required participation in drills and exercise. The inspectors reviewed records of training and determined that they were being maintained current. The current qualification status of individuals in the emergency response organization was difficult to establish, however, in part because the interface between the training coordinator and the emergency planning supervisor was not fully proceduralized. Specifically, the initial and requalification training records which had been maintained by the emergency response training organization did not indicate whether the individual had received the required drill or exercise experience. Drill and exercise participation records had been maintained separately by the emergency planning supervisor. The procedure did not provide for maintaining a composite training record to clearly show when required Lm. sancy response training had been completed. A similar procedural concern was noted in that no method was identified for tracking crews or individuals who required remediation or whose training was delinquent. There was also no defined grace period for establishing training delinguency. The inspectors noted that these tasks were being accomplished by experienced individuals in the absence of procedural

The inspectors noted that emergency response training of operating crews has been conducted separately from their dose assessment coordinators and communicators who would respond to the control room early in an emergency. Although no problems surfaced during the walkthroughs which were related to this training practice, the shift supervisors and emergency directors interviewed stated that they were uncomfortable with the arrangement and would be more confident in their ability to perform as a unit during emergencies if they could train together. Some response personnel interviewed also indicated that training program feedback from the trainees had been only verbally communicated to training personnel with no formal mechanism for the handling of the feedback information provided by trainees.

The inspectors reviewed documentation of drills and exercises conducted since the previous inspection to determine whether they had been conducted in accordance with 10 CFR Part 50, Appendix E.IV.F and the emergency plan. Section 13.3.7.1.2.3 of the emergency plan specifies schedules and types of drills required of the licensee. The inspectors found that aside from the annual exercise, only one integrated drill had been conducted since the previous inspection in March 1992. The integrated drill documentation contained little information indicating which of the required drills were satisfied. Licensee representatives also were unable to provide this information. The inspectors had to reference the drill scenario to determine whether the drill satisfied certain emergency plan requirements for the conduct of drills involving such response capabilities as medical emergency, and radiological monitoring. Although it appeared that drill requirements had been satisfied, the inspectors conveyed to licensee representatives that compliance with drill requirements should be clearly documented and should not have to be deciphered through reviews of scenarios.

In addition to the documentation concerns detailed above, the inspectors found little documentation on file concerning the results of drills. Licensee representatives stated that drills had been conducted in a didactic manner with immediate corrective instruction provided during the drills. The inspectors noted however, that no records of drill weaknesses or followup actions had been generated. Documentation referenced concerns only in general terms. For example, the only documentation of the results of a November 24, 1992, Post Accident Sampling drill was the statement, "The results of this drill were satisfactory and no deficiencies were noted." There was no documentation of basis for the satisfactory results. No data was recorded relative to the time it took to complete the sampling and analysis. No actual sample analysis data was included in the drill package.

5.1.2 Walkthroughs with Operating Crews

The inspectors conducted a series of emergency response walkthroughs with operating crews to evaluate the adequacy and retention of skills obtained from the emergency response training program. A single walkthrough scenario was developed by the inspectors and administered to the crews to determine whether control room personnel were proficient in their duties and responsibilities during a simulated accident scenario. Attachment 2 to this inspection report contains a narrative summary of the walkthrough scenario. The inspectors observed three crews during the walkthroughs using the control room simulator in the dynamic mode. The scenario consisted of a sequence of events requiring an escalation of emergency classifications, culminating in a general emergency. Each walkthrough lasted approximately 90 minutes. During the walkthroughs, the inspectors were able to observe the interaction of the response crews to verify that authorities and responsibilities were clearly defined and understood. The walkthroughs also allowed the evaluation of the crews' abilities to assess and classify accident conditions, perform dose assessments, develop protective action recommendations, and make timely and complete notifications to offsite authorities.

During the walkthroughs, the inspectors observed that all emergency classifications were made in a timely manner. The recently revised procedure for classifying emergencies, Procedure EIP-2-001, Revision 6, was noted to be user friendly and easily executed by the shift supervisors.

The inspectors observed and evaluated the ability of each crew to make accurate and timely notifications to offsite authorities. The primary method for promptly notifying offsite authorities of declared emergencies is via a computer-based communications system referred to as the Emergency, State, and Parish System. The alternate notification method is a ringdown "hotline" telephone to the State and Parishes. A short notification form has been used during initial notifications of an emergency classification. A long form containing additional information has been used for followup messages.

During the walkthroughs, notifications were made promptly. The following problems, however, were observed with the Emergency, State, and Parish System notification system:

- Short form notification messages transmitted of the General Emergency did not indicate the Protective Action Recommendations issued by the recovery manager. The inspectors observed that Protective Action Recommendations had been properly entered into the message as it appeared on the Emergency, State, and Parish System monitor, but this information was not part of the message transmitted.
- When one crew's communicator entered the Emergency, State, and Parish System computer command to gain control of the Emergency, State, and Parish System notification system for the purpose of making the Notification of Unusual Event (Notification of Unusual Event) notification, control was electronically denied by the computer system with the message "ISC denied control access." Because of this, the communicator was unable to use the Emergency, State, and Parish System notification system to make the initial Notification of Unusual Event notification.
- During one ALERT notification, a communicator entered the required information into the Emergency, State, and Parish System on the short notification form for transmittal. When the transmit command was executed, the Emergency, State, and Parish System transmitted the long form message instead of the intended short form message. The long form

had not appeared on the Emergency, State, and Parish System monitor nor had the communicator worked with the long form during the ALERT notification sequence. In addition, the long form transmitted indicated conflicting information regarding whether the reactor was shut down.

The Emergency, State, and Parish System notification system demonstrated an internal clock problem which prompted a "next message due in 6 minutes" message on the monitor 24 minutes before the next message was actually due.

Problems observed with the execution of messages using the Emergency, State, and Parish System notification system were identified as a weakness (458/9315-02).

The inspectors observed and evaluated the ability of each crew to perform dose projections and assessments using the dose assessment computer. The release path established by the scenario was an unfiltered path from the steam tunnel, to the turbine building exhaust, and out the main stack. Normally, the dose assessment would be made by using the release rate value from the Stack Monitor RE*125 Channel 4 given in μ Ci/hr. However, that channel was not modeled in the simulator. The readings on the channels that were modeled were given in μ Ci/ml which requires manual calculation using a conversion factor from the procedure. All three crews were able to perform this conversion. The inspectors observed that protective action recommendations that were issued as a result of dose assessments were accurate.

Two problems did occur with the identification of the release being filtered versus unfiltered. One shift supervisor erroneously thought that the release was filtered through the standby gas system. This resulted in a lower dose at the site boundary. The cause of the problem was apparently poor communication between the operators and the shift supervisor. The other problem stemmed from the default setting of the dose assessment program. When the program was initiated, the default assumption was that the release was filtered. One crew made the determination that the release was unfiltered, but during the calculation, the program had defaulted to filtered when he reinitiated the program. The inspectors concluded that these observations were isolated and did not represent an emergency preparedness training problem. The use of nonconservative default conditions in the dose assessment program was discussed with licensee representatives as an area for potential improvement.

5.2 Conclusion

The training organization has maintained an effective emergency response training program. Emergency response organization personnel had been trained in accordance with applicable station procedures. The performance of operating crews during walkthrough evaluations was good. A weakness was identified for several problems observed with the execution of messages using the computer based Emergency. State, and Parish notification system.

6 INDEPENDENT AND INTERNAL REVIEWS AND AUDITS (82701-02.05)

The inspectors met with quality assurance personnel and reviewed independent and internal audits of the emergency preparedness program performed since the last inspection to determine compliance with the requirements of 10 CFR 50.54(t).

6.1 Discussion

The last audit of emergency preparedness had been conducted during the period June 8-19, 1992 (Audit 92-06-I-FEPL). The audit team consisted of a lead auditor, a licensee auditor, a technical specialist consultant, and two emergency preparedness specialists from other licensed facilities. The training and qualifications of audit personnel was reviewed. Both licensee audit personnel had been certified as lead auditors in accordance with ANSI/ASME N45.2.23 - 1978, "Qualification of QA Program Audit Personnel for Nuclear Power Plants." The inspectors found the audit team to have excellent qualifications.

The report of Audit 92-06-I-FEPL identified 11 Quality Assurance Finding Reports and 5 concerns. The report stated that the identified conditions were not considered significant but indicated a need to provide improved attention to the finer details of the program. Documentation of the audit plan and procedures utilized during the conduct of the audit was detailed and comprehensive. The inspectors found the scope and depth of the audit to be good. Excellent findings were identified and properly characterized. Followup was tracked and implemented promptly with all previously identified quality findings in the emergency preparedness area having been closed.

One surveillance had been performed in the emergency preparedness area since the previous inspection. The purpose of the surveillance was to verify on duty shift staffing levels as specified in the plan.

6.2 Conclusion

The annual audit of emergency preparedness performed pursuant to 10 CFR 50.54(†) was of good scope and depth and utilized an audit team with excellent qualifications. Excellent audit findings were documented and followup to the findings was prompt.

7 EVALUATION OF UNANNOUNCED, OFF-HOURS EMERGENCY RESPONSE ORGANIZATION CALLOUT DRILL (82301)

On May 12, 1993, the licensee conducted an unannounced drill to test its capabilities to staff and activate nearsite emergency response facilities in a timely manner during off-hours. The inspectors evaluated the licensee's response from the Control Room, Operational Support Center, Technical Support Center, and Emergency Operations Facility.

7.1 Discussion

The drill was initiated during an operating crew walkthrough at the time of the General Emergency declaration. Emergency Response Organization pager activation was accomplished from the control room at 1914 May 12, 1993. Facility staffing and activation times were noted as follows:

Facility	Minimum Staffing		Activation		Full Staffing	
	time	min.	time	min.	time	min.
TSC	2018	64	2019	65	2023	69
OSC	n.a.	n.a.	2015	61	n.a.	n.a.
EOF	2031	77	2036	82	2036	82

EMERGENCY RESPONSE FACILITY STAFFING AND ACTIVATION TIMES UNANNOUNCED OFF-HOURS DRILL CONDUCTED MAY 12, 1993

The licensee's commitments for emergency response organization response timeliness specified in Section 13.3.5.1 of the emergency plan states that the entire emergency response organization could be available within 60 minutes during fair weather conditions and light traffic. At the time of the drill, a thunderstorm was moving through the area. The inspectors observed that the onsite emergency response facilities were staffed and activated in about 1 hour and the Emergency Operations Facility in less than 1.5 hour. The inspectors concluded that the emergency response organization responded to the site in a timely manner. Emergency response facilities were activated efficiently and promptly after minimum staffing was achieved. Despite the successful demonstration of the overall drill objectives, the following observations were discussed with the licensee as potential areas for improvement:

- Two individuals assigned to the emergency response organization who were on call with pagers acknowledged the drill page but misidentified the coded page signal as not requiring response to the site. These individuals failed to report to the site to fill the positions of radiological assessment coordinator and operational support center chemistry advisor.
- One emergency response organization staff member who was trained and qualified to fill multiple response positions reported to the site and filled the position of Operational Support Center Chemistry Advisor.
 Is a position she was qualified for but satisfied to fill. Her assigned position, that of Technical Support Center Chemistry/Core Assessment Coordinator, was unfilled until the problem with the vacancy was recognized and corrected late in the drill.
- The radiological assessment coordinator and assistant radiological assessment coordinator are identified in Procedure EIP-2-018, Revision 10, "Technical Support Center Activation," as required minimum

staff members necessary for activation of the Technical Support Center. Procedure EIP-2-019, Revision 10, "Technical Support Center Support Functions" states, however, that these staff members report to the Emergency Operations Facility if it is activated. Since the drill initiated with a General Emergency and activation of the Emergency Operations Facility, these individuals did not report to the Technical Support Center. Following the drill, the licensee identified the need to revise Procedure EIP-2-019 to specify these two positions as minimum staffing for the Technical Support Center at the Alert classification only.

7.2 Conclusion

During an unannounced drill evaluated by the inspectors, the licensee's emergency response organization demonstrated the capability to staff and activate onsite and nearsite emergency response facilities during off-hours in a timely manner.

8 FOLLOWUP ON PREVIOUS INSPECTION FINDINGS (92702)

8.1 (Closed) Weakness 458/9206-01: Weakness identified during walkthroughs involved issuing erroneous or conflicting Protective Action Recommendations

During walkthroughs conducted during this inspection, the inspectors noted that Protective Action Recommendations were promptly issued and were accurate for the known plant conditions prevailing at the time.

8.2 (Closed) Exercise Weakness 458/9301-02: Timely Postaccident Sampling System Sample Collection and Analysis

This exercise weakness involved the failure to collect and analyze a sample from the Postaccident Sampling System in an efficient and timely manner. There were several items identified in the exercise weakness which caused unnecessary delays and contributed to the inefficiency observed in the collection of a postaccident containment air sample.

During the week of May 3-7, 1993, an inspector with the Facilities Inspection Programs Section verified that the licensee had implemented corrective action commitments to perform additional surveillances, on-the-job training, and maintenance on the Postaccident Sampling System panel (NRC Inspection Report 50-458/93-13).

On May 4, 1993, the inspector observed an unannounced drill to demonstrate the licensee's capability to collect and analyze Postacciden. Sampling System samples within a 3-hour time frame. For the drill, a small volume liquid sample from the residual heat removal system and a containment air sample were to be collected. The inspector observed that all of the delays detailed in the original exercise weakness had been corrected to preclude recurrence. The Postaccident Sampling System team functioned well together and performed effectively and efficiently. A hardware problem was experienced when sample flow stopped during the collection of the small volume liquid sample. The

problem was identified as the failure of a valve. The attempt to collect this sample was suspended. The containment air sample was collected and analyzed satisfactorily within the specified time frame. Following repairs to the failed valve, on May 7, 1993, the licensee satisfactorily collected and analyzed the small volume liquid sample within the specified time frame.

8.3 (Closed) Exercise Weakness 458/9301-03: Improper Radiological Practices During Postaccident Sampling System Sample Collection

This weakness involved several examples of poor radiological controls exercised during the collection of a Postaccident Sampling System sample. During the week of May 3-7, 1993, an inspector with the Facilities Inspection Programs Section verified that the licensee had implemented corrective action commitments to provide additional training to radiation protection personnel on the proper radiological controls to be implemented for postaccident sampling teams (NRC Inspection Report 50-458/93-13). During an unannounced Postaccident Sampling System drill conducted on May 4, 1993, the inspector observed that extra breathing air supply bottles were provided for the sampling team in the vicinity of the Postaccident Sampling System area. The radiation protection team member frequently monitored each team member's radiation dose indicated on their self-reading alarming dosimeters and also monitored their remaining breathing air supply. Air sampler filters were checked for defects. The inspector concluded that all of the poor radiological practices identified in the original exercise weakness had been corrected to preclude recurrence.

ATTACHMENT 1

1 PERSONS CONTACTED

1.1 Licensee Personnel

*R. J. Bachin, Supervisor, Quality Assurance Systems *W. L. Beck, Director, Nuclear Training J. E. Booker, Manager, Safety Assessment and Quality Verification *D. R. Derbonne, Assistant Plant Manager *L. A. England, Director, Nuclear Licensing *R. H. Gaylor, Director, Computer Systems *R. Godwin, Nuclear Training Representative *J. R. Hamilton, Manager, Engineering *R. Jobe, Senior Emergency Planner *J. W. Leavines, Supervisor, Nuclear Safety Assessment Group *D. N. Lorfing, Supervisor, Nuclear Licensing *1. M. Malik, Supervisor, Operations Quality Assurance *J. Schippert, Plant Manager *W. M. Smith, Supervisor, Emergency Planning *K. Swanzy, Emergency Planner *J. Venable, Operations Supervisor *L. W. Woods, Shift Supervisor

1.2 NRC Personnel

*D. Loveless, Resident Inspector

*Denotes those present at the exit interview

2 EXIT MEETING

The inspectors met with the licensee representatives and other personnel indicated in Section 1 of this attachment on May 14, 1993, and summarized the scope and findings of the inspection as presented in this report. The licensee did not identify as proprietary any of the materials provided to, or reviewed by, the inspection team during the inspection.

ATTACHMENT 2

EMERGENCY PREPAREDNESS INSPECTION SCENARIO NARRATIVE SUMMARY

Simulation Facility: River Bend Station

- Initial Conditions: Reactor is at 100 percent power MOL with equilibrium xenon. Recirculation Pump B has indication of increasing seal leakage. A weeping SRV is keeping suppression pool temperature sufficiently elevated to require one loop of RHR to continuously be in suppression pool cooling, RHR A is currently in use. Channel 4 of RE*125 is inoperable due to a power supply failure on the effluent flow rate monitor. Plant management is meeting to determine the course of action for the leaking SRV.
- Sequence of Events: About 5 minutes into the scenario, jet Pumps 5 and 6 fail causing loose parts monitors to alarm and fuel failure. Offgas radiation increases by 1200 mR/hr on D17-R604 at 1H13*P600. Area radiation monitors in appropriate areas are showing corresponding increases. This will require Notification of Unusual Event based on Procedure EIP-2-002 3 fuel damage indication.

As the declaration and notifications are being made, the radiation levels continue to increase until the MSL Hi alarms come in at 1.5 X normal. An automatic scram will not occur on MSL Hi-Hi at 3 X normal, but MSIVs will close requiring manual scram to terminate the pressure transient. The MSL Hi-Hi trip without scram will require declaration of an Alert per Procedure EIP-2-003 1.3. Notification of upgrade must be made.

The SRVs will cycle open because of the pressure spike, adding more heat to the suppression pool. At the same time an unisolable break of the RCIC steam supply line will occur. Steam tunnel temperatures and radiation levels will increase. The main stack effluent radiation levels will increase correspondingly giving indication of loss of all three fission product barriers. This requires declaration of a General Emergency in accordance with Procedure EIP-2-005 2.1-5.

An unfiltered release path to the main stack will be established such that a source term must be determined and protective action recommendations made.