

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report Nos. 50-266/93018(DRP); 50-301/93018(DRP)

Docket Nos. 50-266; 50-301

License Nos. DPR-24; DPR-27

Licensee: Wisconsin Electric Company  
231 West Michigan  
Milwaukee, WI 53201

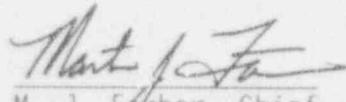
Facility Name: Point Beach Units 1 and 2

Inspection At: Two Rivers, Wisconsin

Dates: December 7, 1993 through January 18, 1994

Inspectors: K. R. Jury  
J. Gadzala

Approved By:



M. J. Forber, Chief  
Reactor Projects Section 3A

1/31/94  
Date

Inspection Summary

Inspection from December 7, 1993 through January 18, 1994  
(Reports No. 50-266/93018(DRP); No. 50-301/93018(DRP))

Areas Inspected: Routine, unannounced inspection by resident inspectors of plant operations, maintenance, engineering, plant support, and corrective actions on previous findings.

Results: No violations of NRC requirements and two inspector followup items were identified. An Executive Summary Follows.

## Executive Summary

### Plant Operations

Unit 2 power was reduced to 77% January 18 due to switchyard breaker problems brought about by extremely cold weather. The licensee effectively implemented their cold weather procedures as temperatures dropped to -28° F. (Paragraph 1.c).

### Maintenance

Performance in this area remained consistent. No significant issues were noted.

### Engineering

Good planning and supervision were evident during motorized valve (MOV) limit switch modifications, MOV operator replacement, and modification of EDG exhaust piping. Installation procedures were well written and contained appropriate precautions and compensatory measures. Responsible engineers were knowledgeable of the modification's details and around the clock support was provided where warranted (Paragraph 3.a).

The licensee performed several modifications on the EDGs (Paragraph 3.b).

Construction continued on the new EDG building and the new diesel fuel oil system (Paragraph 3.c).

### Plant Support

The plant's 1993 exposure decreased for the fourth consecutive year, continuing the favorable trend the licensee has demonstrated, which is indicative of an effective ALARA program (Paragraph 4).

An emergency plan exercise was conducted on December 8 with acceptable overall results. Weaknesses included inconsistent control and prioritization of activities between the Technical Support and Operations Support Centers, incomplete and inaccurate plant status in the Emergency Operations Facility, and examples of weak inter-facility communications. Exercise planning was considered a strength (Paragraph 4.a).

## DETAILS

### 1. Plant Operations (71707) (60710) (71714)

The inspectors evaluated licensee activities to confirm that the facility was being operated safely and in conformance with regulatory requirements. These activities were confirmed by direct observation, facility tours, interviews and discussions with licensee personnel and management, verification of safety system status, and review of facility records.

To verify equipment operability and compliance with technical specifications (TS), the inspectors reviewed shift logs, Operations' records, data sheets, instrument traces, and records of equipment malfunctions. Through work observations and discussions with Operations staff members, the inspectors verified the staff was knowledgeable of plant conditions, responded promptly and properly to alarms, adhered to procedures and applicable administrative controls, was cognizant of in progress surveillance and maintenance activities, and was aware of inoperable equipment status. The inspectors performed channel verifications and reviewed component status and safety related parameters to verify conformance with TS. Shift changes were observed, verifying that system status continuity was maintained and that proper control room staffing existed. Access to the control room was restricted and operations personnel carried out their assigned duties in an effective manner.

Plant tours and perimeter walkdowns were conducted to verify equipment operability, assess the general condition of plant equipment, and verify that radiological controls, fire protection controls, physical protection controls, and equipment tag out procedures were properly implemented.

#### a. Unit 1 Operational Status

The unit continued to operate at full power during this period with only requested load following and testing power reductions.

#### b. Unit 2 Operational Status

The unit continued to operate at full power during this period with the exception of requested load following, testing power reductions, and a four hour power reduction to 77% on January 18 due to switchyard breaker concerns caused by extremely cold weather.

#### c. Cold Weather Operations

The site experienced extremely cold weather from about January 13 to January 21 with air temperatures falling as low as -28° F. The inspectors reviewed the licensee's cold weather preparations and

had no concerns. The licensee had upgraded several of their heat tracing and other freeze protection systems over the past few years. As a result, only minor equipment problems resulted from the abnormal temperatures. Several steam generator blowdown monitor flow sensing lines froze, requiring installation of portable heat lamps to thaw them. The cabinets containing the main steam isolation valve solenoid operators reached their low operating limit and required replacement of their 150 watt heaters with 200 watt heaters to correct the problem.

Point Beach implemented abnormal operating procedure AOP-16A, "Fuel Oil System Abnormal Operation", as required on January 14 when the outside air temperature dropped to  $-12^{\circ}$  F. The principle purpose of this procedure is to recirculate fuel oil through the above ground storage tanks to ensure the fuel does not crystallize in the supply piping and remains available to supply the gas turbine generator and the emergency diesels. Procedure AOP-13C, "Severe Weather Conditions", was implemented January 18 when air temperature dropped below  $-20^{\circ}$  F.

On January 18, the cold temperatures led to numerous alarms on the switchyard breakers due to low operating air pressure. Breaker operating air serves to open the breaker and blow the arc that results into the arc arrestor and thereby open the circuit. Each breaker's 500 psi operating air is supplied from a 1900 psi accumulator that is in turn supplied by its own compressor. An interlock prevents breaker opening if its air pressure drops to 400 psi. At about 5 a.m., the Unit 2 generator's output breaker air pressure approached 400 psi. Plant operators initially did not know the effect of a complete loss of air pressure on this breaker and therefore commenced a 1% per minute load decrease on Unit 2 in anticipation of the breaker failing open. Power was reduced to 77% when it was determined that the breaker would fail as is. Additionally, it was verified that the downstream bus section breakers remained operable and would protect the generator in the event of an electrical fault.

Company switchyard maintenance personnel were called in to troubleshoot and repair the cause of the low operating pressures. Numerous leaks were identified on the various breakers, mostly attributable to the cold temperatures. Aluminum tubing, used in the air connections, contracted sufficiently in the cold to cause leakage at its connections. Additionally, company workers identified that a new type gasket being used on the breakers had very low resiliency in cold temperatures and was not sealing properly. Repair activities included cross connecting air supplies among various breakers, using a portable air compressor, and piping nitrogen to breakers to maintain pressure. Warming produced by the sun resulted in additional leakage mitigation. Air pressure on both units' generator output breakers had dropped below 400 psi before pressure could be restored by the above methods. Air pressure in the backup breakers remained above the

400 psi interlock setpoint. Unit 2 was returned to full power once its air pressure was restored. Crews were maintained on call on site to respond as necessary when temperatures dropped again later that day. The licensee was evaluating the adequacy of the new type gasket material used in these breakers to determine replacement requirements during the next scheduled breaker maintenance.

2. Maintenance (62703) (61726)

a. Maintenance

The inspectors observed safety related maintenance activities on systems and components to ascertain that these activities were conducted in accordance with TS, approved procedures, and appropriate industry codes and standards. The inspectors determined that these activities did not violate LCOs and that required redundant components were operable. The inspectors verified that required administrative, material, testing, and radiological and fire prevention controls were adhered to.

Specifically, the inspectors observed/reviewed the following maintenance activities:

- PBTP-024 (Revision 0), G-02 Service Water Return Piping Replacement
- MI 5.1.1 (Revision 14), Limitorque MOV Torque and Limit Switch Adjustment for Gate and Globe Valves
- 2SI-D33 SI test line drain valve removal and capping

b. Surveillance

The inspectors observed certain safety related surveillance activities on systems and components to ascertain that these activities were conducted in accordance with license requirements. For the surveillance test procedures listed below, the inspectors determined that precautions and LCOs were adhered to, the required administrative approvals and tag-outs were obtained prior to test initiation, testing was accomplished by qualified personnel in accordance with an approved test procedure, test instrumentation was properly calibrated, the tests were completed at the required frequency, and that the tests conformed to TS requirements. Upon test completion, the inspectors verified the recorded test data was complete, accurate, and met TS requirements; test discrepancies were properly documented and rectified; and that the systems were properly returned to service.

Specifically, the inspectors witnessed/reviewed selected portions of the following test activities:

- TS-1 (Revision 37), Emergency Diesel Generator G-01 Biweekly
- ICP-2.3A-1 (Revision 6), Reactor Protection System Logic Train A Monthly Surveillance
- IICP-02.008-1 (Revision 1), Nuclear Instrumentation Power Range Axial Offset Initial Calibration

No significant discrepancies were noted during the observance of any of the above tests.

### 3. Engineering (71707) (37828)

The inspectors evaluated engineering and technical support activities to determine their involvement and support of facility operations. This was accomplished during the course of routine evaluation of facility events and concerns, through direct observation of activities, and discussions with engineering personnel.

#### a. Installation and Testing of Modifications

The inspectors observed onsite activities and hardware associated with the installation of selected plant modifications to ascertain that modification activities are in conformance with requirements. This inspection included verification of the following items:

- Verification by direct observation that work is being performed by qualified workers and in accordance with approved procedures.
- Verification that the installation conforms to the as-built drawings.
- Confirmation that the equipment and material being used is correct.
- Determination whether the modified equipment was properly prepared for preoperational testing.
- Verification that preoperational testing was conducted using properly reviewed procedures and the test results appropriately evaluated against established criteria.

Selected portions of the following modifications were reviewed:

- IWP 92-085\*B (Revision 0), Emergency diesel generator G-02 exhaust piping replacement

This modification resulted in installation of a flexible coupling in the G-02 emergency diesel exhaust piping to relieve stress on the turbocharger cover bolts. As documented in previous inspection reports, these bolts had been subject to high cyclic stresses which caused several of them to fail. As an interim measure, the licensee had been replacing these bolts on an annual basis during the diesels' respective overhauls. Although installation of this

modification resulted in additional out-of-service time for an emergency generator, the work was performed around the clock to minimize the out-of-service time and the new coupling was expected to provide enhanced reliability of the diesels. Engineering support was also provided around the clock as a contingency to expedite resolution of any unforeseen problems that might have arisen during the installation process. Additional details appear in paragraph 5.b below.

• IWP 88-076-2, Motor Operator Replacement for AF-4021

Work on this valve was performed in parallel with a corresponding modification of AF-4020. These two valves throttle the discharge from the B motor driven auxiliary feedwater pump to their respective steam generators. By performing the work on both valves in parallel, the amount of time spent in a limiting condition for operation was minimized. Additionally, while this pump was out of service for its modification work, other maintenance actions were concurrently performed on it to further reduce the time the pump was out of service.

b. Diesel Generator Outage

On December 6, emergency diesel generator (EDG) G02 was removed from service to replace its service water discharge piping. Radiographic testing performed in 1991 indicated some areas of the service water piping to the EDGs contained greater than 75% through wall pitting. The supply piping for both diesels was the most significantly corroded and had been replaced during September 1991. Details of this evolution appear in Inspection Report 266/91019; 301/91019. Replacement of the discharge piping, which exhibited significantly lower corrosion, had been postponed. Concurrent with the service water piping work, installation of a flexible coupling in the G02 emergency diesel exhaust piping was also performed.

This same project was performed on the other train EDG the week of November 10, 1993 as documented in Inspection Report 266/93015. Work was completed without incident in a timely manner. The inspectors monitored performance of these activities and did not have any significant concerns.

c. Construction of New Emergency Diesel Generator Building

Construction of the building to house two new emergency diesel generators and the new diesel fuel oil system began the week of June 7, 1993. Initial observations of this activity are discussed in Inspection Report 266/301/93011. During this inspection period, concrete pours were essentially completed for the main building structural walls and roof. Conduit lay-down for a

section of the new diesel generator cable run through the turbine building was completed. Fuel line connections between the new and existing diesels and installation of interior lighting in the new building was initiated. Installation of electrical cabinets and load control centers commenced, support equipment was being staged inside the new structure in preparation for installation, and the new G04 emergency diesel arrived onsite January 12 and was set in place in its bay.

The inspectors monitored various aspects of these activities including the arrival and setting of the G04 diesel. Discussions were held with craft workers and supervisors to evaluate their knowledge of the job requirements. The inspectors will continue to monitor progress of this construction.

4. Plant Support (71707)

a. Radiological Controls

The inspectors routinely observed the plant's radiological controls and practices during normal plant tours and the inspection of work activities. Inspection in this area includes direct observation of the use of Radiation Work Permits (RWPs); normal work practices inside contaminated barriers; maintenance of radiological barriers and signs; and health physics (HP) activities regarding monitoring, sampling, and surveying. The inspectors also observed portions of the radioactive waste system controls associated with radwaste processing.

From a radiological standpoint the plant is in good condition, allowing access to most sections of the facility. During tours of the facility, the inspectors noted that barriers and signs also were in good condition. When minor discrepancies were identified, the HP staff quickly responded to correct any problems.

The plant's annual personnel exposure for 1993 was less than 200 Man Rem for the first time since 1974 (cumulative plant exposure data was not compiled prior to that year). Exposure has dropped for the fourth consecutive year in large part due to improved planning and control of exposure intensive work. This is a continuation of the licensee's positive trend in exposure reduction and a reflection of an effective ALARA program.

b. Emergency Preparedness Exercise

Point Beach performed an emergency plan exercise on December 8 involving declaration of several emergency classification levels; activation of the technical support center (TSC), operations support center (OSC), and emergency operations facility (EOF); plant accountability exercising; and offsite response team exercising. The exercise scenarios included two events leading to offsite releases. The first was a fuel handling accident at the

spent fuel pool leading to fuel damage involving a minor release. The second was a steam generator tube rupture coupled with a stuck open steam generator relief valve and a failed fuel element. The control room simulator was used to provide realism and enhance exercise effectiveness. Peripheral events included in the scenario included an injured man requiring offsite evacuation and a stuck radiography source that restricted access to the injured man.

Excellent preparations for the conduct of the exercise were evident. The scenario and its timing were well planned and carried out. Logs, plant data, and lists of out-of-service equipment were developed to mirror actual plant conditions. Effective exercise control was evident throughout the scenario, thereby maximizing its training effectiveness.

Overall exercise performance was acceptable. The exercise demonstrated that the onsite emergency plans are adequate and that the licensee is capable of implementing them. Emergency classification levels were appropriately declared and notifications were made within specified time requirements.

Control room personnel responded well to the scenario and a second control operator was assigned to assist the Unit 1 operator. Operators rapidly identified the faulted steam generator and recognized the consequences of this condition. Emergency procedures were followed in a competent and methodical manner. Communications among control room personnel were very good and information was promptly and effectively relayed to the TSC and OSC. However, the flow of information back to the control room was not as effective. This resulted in degraded coordination of activities and some confusion regarding status of the TSC's and OSC's responsibility for specific corrective actions. The control room was not informed that the TSC was activated until operators heard this announcement over the public address system, requiring the control room to verify this information with the TSC. No explicit transfer of responsibility occurred between the control room and the TSC. The control room also did not receive adequate information from the response team at the scene of the injured man.

Good briefings were observed in the control room for operations teams that were assembled for initial response to the event. Status updates were periodically announced to all control room personnel and were effective in keeping operators apprised of the developing situation. However, minimal announcements were made over the public address system to keep personnel outside the control room aware of ongoing activities and changing plant conditions.

Control of activities in the OSC was effective. However, weaknesses were noted in the tracking and identification of

operations teams. Some teams were not listed on the team status board, creating the potential to lose track of the team. Some team designators were inappropriate for the mission of the team, occasionally leading to some confusion as to the team's function and status. Prioritization of team activities was only minimally coordinated with the TSC. Several examples were noted of multiple teams simultaneously being assigned the same priority, indicating a lack of prioritization. A team assigned the highest priority was assembled to line up the system for containment sump recirculation even though there was neither a need nor a request for this function by the TSC.

Although overall performance in the TSC was good, several notable weaknesses in coordination and communication were noted. The TSC lacked a public address system microphone, requiring exiting the TSC into an adjacent noisy passageway to make public address announcements. Various people were making status announcements over the TSC loudspeaker, making it difficult to ascertain the actual importance of the messages. Priorities appeared to be set by different groups within the TSC and OSC rather than being promulgated by the TSC site manager. At one point in the scenario, the control room requested that isolation of the safety injection accumulators be given highest priority. This request was not properly communicated to the TSC and OSC managers. During the interim period from OSC activation until the TSC was activated, the command relationship between the OSC and TSC was ambiguous. Establishing and communicating priorities was considered an exercise weakness that will be followed up in a future exercise (266/93018-01).

Performance in the EOF was good. Participants were not prestaged and thus were required to respond to the site in a manner comparable to that expected under actual emergency conditions. An identified weakness was knowledge of plant status. Status boards were not kept updated and the status of major emergency core cooling systems was not adequately communicated to the EOF emergency support manager. The adequacy of maintaining current and accurate plant status will remain an inspector follow item for evaluation during the next exercise (266/93018-02). An excellent inject into the exercise was the deliberate improper repeat back of phone notification information received by controllers acting as offsite government agencies. This led the licensee to identify a weakness in the accuracy of information dissemination. Communicators failed to recognize that the recipients' acknowledgement of messages indicated that the information they received was misunderstood.

Offsite monitoring teams were effective in locating the release plume and identifying its extent and composition. The teams were rapidly organized and dispatched. Although good communications capability existed between the teams and their control base, minimal status information was communicated to the teams. At one

point in the scenario, a monitoring team encountered a continual drop in offsite radiation readings. These readings were unexpected to the team members because they were unaware that the release had stopped.

A critique was held shortly after the exercise to provide feedback to exercise participants. Many of the findings noted by those controllers responsible for the control room, EOF, and offsite monitoring teams were considered critical of the areas monitored and paralleled those identified by the inspectors. However, the licensee's assessment of their performance in the OSC and TSC differed from the inspectors' observations. Plant evaluators in the OSC and TSC did not identify the full breadth of the communications and prioritization weaknesses noted by the inspectors. Contrary to the inspectors' observations, plant evaluators considered TSC communications with the control room a strength and considered the TSC's weak command and control of prioritization a weakness only in the initial stages of response activities. The licensee plans to correct the identified weaknesses by performing training in the areas of concern.

c. Security

The inspectors, by direct observation and interview, verified that portions of the physical security program were being implemented in accordance with the station security plan. This included checks that identification badges were properly displayed, vital areas were locked and alarmed, and personnel and packages entering the protected area were appropriately searched. The inspectors also monitored any compensatory measures that may have been enacted by the licensee.

5. Corrective Action on Previous Inspection Findings and Licensee Event Reports (92701) (92700) (90712)

a. (Closed) Unresolved Item (301/92018-06): Adequacy of the Component Cooling Water (CCW) Design Bases

On August 6, 1992, the licensee identified that isolation valves separating the seismic portion of the Unit 2 CCW system from the non-seismic section were not leak tight. The subsequent investigation into this issue raised several questions regarding the adequacy of the design bases of both CCW and the chemical and volume control system (CVCS). In 1989, the licensee had decided to upgrade the CCW system to safety related status. Although initially expected to be finished by 1992, the project completion date was later extended to 1995.

By letter dated November 16, 1992, the NRC requested additional information from the licensee related to the safety classification of the CCW and CVCS systems. Wisconsin Electric provided their response in a letter dated December 22, 1992. Additional

information was provided in their letter dated June 17, 1993. These responses included a discussion of past and currently planned system and component classification upgrades from non-safety related to safety related status. Related information appears in LER 266/301/92-009-01.

The NRC reviewed the licensee's current classification of these systems and the proposed classification upgrades contained in their December 22 letter. The classification of these systems, when finalized by the upgrades committed to by the licensee, is considered adequate. This item is closed.

b. (Closed) Unresolved Item (266/93002-01; 301/93002-01): Degraded Voltage Relay Setpoints

On January 7, 1993, the degraded bus voltage protection relay setpoints were found to have been set too low to provide adequate protection for certain safety related equipment. The technical specification limit at that time was 3875 volts  $\pm 2\%$ . An interim relay setpoint determination was made and setpoint changes were completed by January 15, 1993. An exigent technical specification change request was submitted to formalize the new setpoint values. The new technical specification setpoint of  $\geq 3959$  volts  $\pm 2\%$  was approved by the NRC. Followup information appears in Inspection Report 266/93006.

The licensee committed to verify the adequacy of the new degraded voltage setpoint by obtaining field measurements and verifying existing degraded voltage calculation design inputs and assumptions. During the ensuing evaluation, the licensee obtained additional information from equipment manufacturers and from past studies which contain test data on some of the larger safeguards loads. The licensee determined that additional field measurements would not yield significantly different results from those obtained from manufacturers and previous tests. The licensee stated in their December 23, 1993, letter that their final analysis concludes that the minimum sustained bus voltage required for proper operation of 4160 volt safeguards equipment is 3941 volts. Based on this, the proper technical specification setting should be  $\geq 3944$  volts. The licensee committed to submit a technical specification change request to revise this value by March 1994. This item is closed.

c. (Closed) LER 266/301/93-008 (through supplement 01): SW-LW-61 Determined to be Inoperable During Surveillance Testing

This report describes an event in which a service water valve was rendered inoperable during performance of corrective maintenance. This resulted in a technical specification violation that was cited in Inspection Report 266/93014. The valve was restored to an operable status upon its discovery. The cause of the event was a combination of personnel error and an inadequate procedure.

Corrective action included a review of the work plan process to determine appropriate improvements. Completion of the corrective action will be tracked via the cited violation for this event.

d. (Closed) LER 266/301/93-009: Inoperability of Both Emergency Diesel Generators

This report describes the situation that caused a relay failure in the control circuitry for emergency diesel generator (EDG) G02 while EDG G01 was already out of service for maintenance. As described in detail in Inspection Report 266/93015, the NRC granted enforcement discretion from the requirement to shutdown both units under such a condition. The diesel undergoing maintenance (G01) was restored to service within a few hours after the second EDG (G02) had become inoperable; the faulty relay on G02 was replaced shortly thereafter. The inspectors monitored the licensee's troubleshooting and testing. This item is closed.

e. (Closed) LER 301/93-004: Operability Concern for Containment Accident Fan Bearing

This report describes the discovery of a containment accident fan bearing that had its retainer cage made from fiberglass reinforced type 66 nylon instead of bronze or steel. The bearing vendor, Link-Belt Bearing Division, changed bearing cage material from bronze to nylon in 1982 but continued to use the same part number. They also continued to manufacture these bearings with bronze cages, but under a new part number. Wisconsin Electric ordered these parts under the old number, expecting to receive bearings with bronze cages as before.

The nylon cage was discovered when the bearing was removed from a fan during routine maintenance. An operability determination made by the licensee indicated that the fan would still have performed its safety function with the nylon bearing cage during the one year period it remained installed. A search revealed one other similar bearing in the plant's stockroom, which was removed. The licensee issued this report for information purposes to alert other utilities to this concern. The licensee is also conducting an internal investigation to determine the root cause of the nylon bearing being accepted during the receipt inspection process.

6. Inspection Follow Up Items

Inspection follow up items are matters which have been discussed with Wisconsin Electric management, will be reviewed further by the inspector, and involve some action on the part of the NRC, licensee or both. Follow up items disclosed during the inspection are discussed in paragraph 6.a.

7. Management Meetings (30702)

A Meeting was held between NRC Region III management and Wisconsin Electric management on December 16, to discuss items of interest and foster improved communications between Wisconsin Electric and the NRC. Items of discussion included engineering support, communications, and corrective actions.

8. Exit Interview (71707)

A verbal summary of preliminary findings was provided to the Wisconsin Electric representatives denoted in Section 1 on January 21, at the conclusion of the inspection. Information highlighted during the meeting is contained in the Executive Summary and no dissenting comments were received. No written inspection material was provided to licensee personnel during the inspection.

The likely informational content of the inspection report with regard to documents or processes reviewed during the inspection was also discussed. Wisconsin Electric management did not identify any documents or processes that were reported on as proprietary.

9. Persons Contacted (71707) (30702)

- \*J. E. Anthony, Quality Assurance Manager
- M. F. Baumann, Manager, Licensing and Radiological Engineering
- J. F. Becka, Regulatory Services Manager
- J. J. Bevelacqua, Manager - Health Physics
- \*A. J. Cayia, Production Manager
- \*F. A. Flentje, Administrative Specialist
- W. B. Fromm, Sr. Project Engineer - Plant Engineering
- L. D. Halverson, Site Services Manager
- F. P. Hennessy, Manager - Chemistry
- W. J. Herrman, Sr. Project Engineer - Construction Engineering
- \*R. C. Hetue, Quality Specialist
- N. L. Hoefert, Manager - Production Planning
- \*T. J. Koehler, Site Engineering Manager
- \*G. J. Maxfield, Plant Manager
- J. A. Palmer, Manager - Maintenance
- J. C. Reisenbuechler, Manager - Operations
- \*J. G. Schweitzer, Maintenance Manager
- R. D. Seizert, Training Manager
- G. R. Sherwood, Manager - Instrument & Controls
- T. G. Staskal, Sr. Project Engineer - Performance Engineering

Other company employees were also contacted including members of the technical and engineering staffs, and reactor and auxiliary operators.

\*Denotes the personnel attending the management exit interview for summation of preliminary findings.