

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-266/89032(DRP); 50-301/89032(DRP)

Docket Nos. 50-266; 50-301

Licenses No. DPR-24; DPR-27

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

Facility Name: Point Beach Unit 1 and 2

Inspection At: Two Rivers, Wisconsin

Dates: December 1, 1989, through January 19, 1990

Inspectors: C. L. Vanderniet
J. Gadzala

Approved By: *RC Knop*
R. C. Knop, Chief
Reactor Projects Branch 3

2-6-90
Date

Inspection Summary

Inspection from December 1, 1989, through January 19, 1990
(Reports No. 50-266/89032(DRP); No. 50-301/89032(DRP))

Areas Inspected: Routine, unannounced inspection by resident inspectors of outstanding items; operational safety; radiological controls; maintenance and surveillance; emergency preparedness; security; engineering and technical support; and safety assessment/quality verification.

Results: During this inspection period, both units operated at full power with only occasional load following power reductions and a brief turbine runback on Unit 1. Issues addressed in this inspection report include: Cold weather operations, (Paragraph 3.e); Injury of two maintenance workers (Paragraph 3.g); Safeguards system degradation (Paragraph 7.a); Fitness for duty training (Paragraph 7.b); Quality Assurance program implementation (Paragraph 9.a); Site and corporate culture training (Paragraph 9.e); and Corporate management reorganization (Paragraph 9.f). New issues that remain unresolved include: Potentially inadequate boric acid storage tank levels (Paragraph 3.f); and Information Notice 88-55 (Paragraph 9.d). One issue is a follow up to a proposed violation for a failure to take prompt corrective actions detailed in Inspection Reports No. 266/89033; No. 301/89033 (Paragraph 9.a.3). The team building training program initiative is viewed as a strength in the licensee's self-improvement efforts.

DETAILS

1. Persons Contacted (30703) (30702)

- *J. J. Zach, Plant Manager
- T. J. Koehler, General Superintendent, Maintenance
- *G. J. Maxfield, General Superintendent, Operations
- J. C. Reisenbuechler, Superintendent, Operations
- W. J. Herrman, Superintendent, Maintenance
- N. L. Hoefert, Superintendent, Instrument & Controls
- R. J. Bruno, Superintendent, Technical Services
- T. L. Fredrichs, Superintendent, Chemistry
- J. J. Bevelacqua, Superintendent, Health Physics
- *D. F. Johnson, Superintendent, Health Physics
- R. C. Zyduck, Superintendent, Training
- *J. E. Knorr, Regulatory Engineer
- *D. R. Stevens, Nuclear Specialist
- F. A. Flentje, Administrative Specialist

Other licensee 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.

2. Licensee Action on Previous Inspection Findings (92702) (92701)

- a. (Closed) Violation (266/88009-02; 301/88009-02): Failure to Follow Equipment Isolation Procedures.

The majority of the corrective action for this violation was completed earlier and is discussed in Inspection Reports No. 50-266/89030; No. 50-301/89030. As the final part of the corrective action, the licensee committed to change the Technical Specifications (TS) wherein the operability requirements of the containment purge supply and ventilation system would be clarified to be in line with the Westinghouse Standardized TS. This was the system involved in the improper equipment isolation cited in the violation.

The TS change request was approved June 9, 1989, as amendments 122 and 125 for Units 1 and 2 respectively. This item is closed.

- b. (Closed) Violation (266/89016-01; 301/89015-01): Failure to Test Station Batteries.

The licensee did not follow the manufacturer's recommendation to test the station batteries prior to them exceeding their 20 year lifetime in the Fall of 1988. Though the licensee considered the recommendation advisory, this test is required by Technical Specifications.

Wisconsin Electric replied to the Notice of Violation in letters dated August 21, 1989, and September 26, 1989, outlining appropriate corrective measures. A revised battery testing program has been submitted to the NRC and is currently being reviewed by NRR. Two of the station batteries (D05 & D06) have since been replaced and the other two batteries (D105 & D106) were tested satisfactory during the Fall 1989 outage. The inspector observed the test and had no concerns. This item is closed.

- c. (Open) Unresolved Item (266/89020-02; 301/89019-02): Multiple Failure of Level Detectors; Operation with Cross Connected Accumulators.

On June 12, 1989, three of four level detectors for the two safety injection accumulators on Unit 2 were found to have failed. All of the failed detectors have since been repaired and returned to service. This event and appropriate corrective actions are discussed in detail in LER 301/89-003 and Inspection Reports No. 266/89024; No. 301/89023. Supplemental LER 301/89-003-01 was issued to address details about the A accumulator level detector, which was one of the three detectors that failed but was not mentioned in the original LER.

The Off Site Review Committee raised a concern regarding the safety implications of operation with the accumulators cross connected if a loss of coolant accident (LOCA) were to occur. The licensee is addressing this concern. This item remains open pending final determination of the need for a Limiting Condition for Operation in Technical Specifications for operating with cross connected accumulators.

- d. (Closed) Unresolved Item (266/89021-01; 301/89020-01): Inadequate Battery Load Studies.

Several loads (125 VDC supply to switchgear sections H01, H02, and H03) were added to batteries D105 and D106 without performing a load study or a safety evaluation. Discussions with the licensee and an evaluation of the added loads, indicate that the loads are very small relative to the capacity of the batteries. The inspector reviewed calculation N-88-026 which determined that most of the additional loads are in the milliamp range and the total loads are within the design capacity of the batteries. This calculation was also noted to have been reviewed and approved in accordance with the licensee's Quality Assurance (QA) procedures. No additional concerns were identified and this item is closed.

- e. (Closed) Unresolved Item (266/89021-04; 301/89020-04): Operation of DC Electrical Components Below 105 Volts.

The battery configuration was modified before the plant became operational whereby one of the 60 cells was removed from service in each of the original station batteries (D05 & D06). Consequently,

the minimum design voltage was lowered from 105 volts to 103.25 volts although no evaluation was made of the effects of this lower voltage on DC electrical loads.

Section 8.2.3 of the Final Safety Analysis Report (FSAR) lists 103.25 VDC as the minimum battery terminal voltage for D05 and D06. Batteries D105 and D106 have a minimum terminal voltage of 105 VDC. The licensee is planning an evaluation of the loads on batteries D05 and D06 for operation down to 103.25 VDC. In the interim, the licensee has administratively changed the acceptability criteria for batteries D05 and D06 back to 105 VDC and a FSAR change is pending to reflect this criteria. The most recent capacity tests of batteries D05 and D06 used 105 VDC as the acceptance criteria and were satisfactory. The inspector discussed this issue with the licensee and had no further concerns. This item is closed.

- f. (Closed) Violation (266/89021-05; 301/89020-05): Failure to Perform Required QC Inspections.

Quality Control (QC) inspections were not performed following replacement of wooden end rails on the battery racks and following replacement of certain molded case circuit breakers even though the Maintenance Work Requests (MWRs) for both actions specified that this was QA scope work.

The licensee believes that QC inspections may have been performed on both of the items above, but the manner in which signatures were required on the documentation prevents adequate verification. This in itself is an acknowledged deficiency. The licensee committed to revise its MWR procedure (PBNP 3.1.3) by October 31, 1989, to correct this weakness, thereby making compliance easier to audit.

The MWR procedure was revised December 1, 1989. The inspector discussed this issue with the licensee and reviewed the revised procedure to ascertain that changes were made as specified in the commitment letter. A step in the procedure allowing a single signature to serve as both acknowledgement of the first line supervisor's review and completion of the QC inspection was deleted. A separate signature now documents completion of a QC inspection. This item is closed.

- g. (Closed) Violation (266/89015-01; 301/89014-01): Failure to Follow Red Tagger Procedure.

Operations Standing Order 4.12.2, "Qualified Red Taggers," lists all plant personnel who are qualified to hang authorized red tags and is referenced in the equipment isolation procedure. A copy of this list is attached to the front of the active red tag log and updated with pen and ink changes. This method of control is not in accordance with plant procedures but has occurred repeatedly.

The licensee initially committed to a multi step course of action that was not fully implemented as discussed in Inspection Reports No. 50-266/89027; No. 50-301/89026. After discussions between the licensee and NRC regarding weaknesses in the use and implementation of plant procedures in general, Wisconsin Electric reevaluated their procedure controls and issued a detailed and comprehensive plan of corrective action on December 21 to address these deficiencies. Included in this plan were actions addressing this specific issue.

This plan committed the licensee to revising PBNP 4.13, "Equipment Isolation Procedure," to eliminate the reference to the standing order, and PBNP 2.1.1, "Classification, Review & Approval of Procedures," to permit local control of the red taggers list. These changes, which were made December 29, 1989, resolve the deficiencies that lead to the original citation. The inspector reviewed the procedure changes and was satisfied. This item is closed.

- h. (Closed) Open Item (266/88005-01; 301/88005-01): Licensee to Investigate a Filtration Method for Analyzing Primary Coolant.

Radionuclide sample analysis performed by the licensee and the NRC mobile laboratory on site showed agreement in 83 of 88 comparisons. A cause for some of the disagreements was attributed to the licensee using a low percent abundance acceptance criteria in identifying nuclides. The licensee agreed to investigate a method involving filtering a sample through a 0.45 micron filter and cation filters.

The licensee has since issued procedure CAMP-408, "Radiochemical Analytical Procedure," which performs this function. Discussions with the licensee indicate that gamma spectroscopic multichannel analysis of the 0.45 micron filter, cation filters and filtrate, yield spectra with less measurement uncertainty from nuclide interferences than counting the sample without separation. The inspector reviewed the procedure and had no concerns. This item is closed.

- i. (Closed) Open Item (266/88005-02; 301/88005-02): Licensee to Evaluate Use of a Larger Gas Sample Container.

Radionuclide sample analysis performed by the licensee and the NRC mobile laboratory on site showed agreement in 83 of 88 comparisons. The licensee did not identify Kr-85 in an off gas sample because the quantity present in the sample approached the lower limit of detection for the plant's equipment and procedures. Although the detection limit is considered adequate, the licensee agreed to evaluate the use of a larger gas sample container.

The licensee has since revised procedure CAMP-102, "Chemistry Administrative Procedures, Gas Decay Tank Sampling and Discharge Guidelines," to specify the use of a one liter poly bottle for use as a gas sample container. A five cc glass vial had been previously

used. The licensee subsequently determined that the larger geometry is significantly more sensitive and provides better counting statistics. The inspector reviewed the procedure and had no concerns. This item is closed.

- j. (Closed) Open Item (266/88005-03; 301/88005-03): Licensee to Determine Iodine Penetration Profile for Charcoal Absorber Sample.

The licensee uses different charcoal geometry in its absorber filters than those that the NRC uses for analysis purposes. The filters used by the licensee for performing multichannel analyzer calibrations are spiked evenly from the filter face down to a depth of 50%. NRC filter standards are spiked only on the filter face. To verify that actual charcoal filter samples at the plant have an iodine penetration profile consistent with their calibration standards, the plant agreed to analyze several filter samples.

This analysis has since been completed. Each sample was cut open and four layers, each 25% of the total filter volume, were removed and analyzed. Analysis results are documented in Wisconsin Electric memo PBNP 88-131 dated July 5, 1988. The analysis showed significant iodine activity penetrating to 50% depth and beyond, thereby verifying that the licensee's absorber calibration is representative of actual samples and can thus produce accurate results. This item is closed.

No violations or deviations were identified.

3. Plant Operations (71707) (71714) (93702)

a. Control Room Observation (71707)

The inspector observed control room operations, reviewed applicable logs and conducted discussions with control room operators during the inspection period. During these discussions and observations, the inspectors ascertained that the operators were alert, cognizant of current plant conditions, attentive to changes in those conditions and took prompt action when appropriate. The inspectors noted that a high degree of professionalism attended all facets of control room operation and that both unit control boards were generally in a "black board" condition (no non-testing annunciators in alarm condition). Several shift turnovers were also observed and appeared to be handled in a thorough manner.

The inspectors performed walkdowns of the control boards to verify the operability of selected emergency systems, reviewed tagout records, and verified proper return to service of affected components.

b. Facility Tours (71707)

Tours of the Turbine Building, Primary Auxiliary Building, and Service Water Building were conducted to observe plant equipment conditions, including plant housekeeping/cleanliness conditions,

status of fire protection equipment, fluid leaks, and excessive vibrations and to verify that maintenance requests had been initiated for equipment in need of maintenance.

During facility tours, inspectors noticed very few signs of leakage and that equipment appears to be in good operating condition. Overall, plant cleanliness has remained good.

c. Unit 1 Operational Status (93702)

On December 10, the licensee notified the NRC via the Emergency Notification System (ENS) that the Unit 1 turbine experienced a runback from 100% to 83% power due to the No. 2 turbine governor valve failing shut. A failed circuitry card was determined to be the cause of this event. The governor valve motion resulted in an automatic inward rod motion that was just rapid enough to actuate the 2.5 % per second rod drop alarm in three of four power range channel drawers. The rod motion also caused delta flux to go outside the TS limits. Delta flux was restored to within the allowable band in 14 minutes by borating and raising power. The faulty circuitry card was replaced and the system restored to normal. The inspector reviewed the licensee's corrective actions and had no further concerns.

The unit operated at full power during the remainder of the period with only requested load following power reductions.

d. Unit 2 Operational Status (93702)

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

e. Cold Weather Operations (71714)

The site experienced extremely cold weather during the week of December 18 with air temperatures falling as low as -25 degrees Fahrenheit. The inspector reviewed the licensee's cold weather preparations and had no concerns. Few problems resulted from the abnormal temperatures with the exception of the fire system jockey pump freezing. The electric fire pump started automatically to maintain header pressure while the jockey pump was returned to service.

f. Potentially Inadequate Boric Acid Storage Tank (BAST) Levels (93702)

On January 5, the licensee notified the NRC via the ENS that the minimum allowed BAST levels, as specified in Technical Specifications (TS), may be erroneous. This finding affects safe shutdown and accident mitigation design considerations for a restart accident following a LOCA or steam line break.

During a review of procedure OP-5A, "Reactor Coolant Volume Control," a licensee engineer noticed that for the steam line break accident analysis, approximately 900 gallons of boric acid solution are needed to mitigate the accident. This 900 gallons must be in excess of the 16% automatic shut off point of the tank (plus 1% margin) of 1550 gallons. This total corresponds to a minimum level of 2450 gallons. The plant TS specify a minimum level of only 2000 gallons. Although the licensee has been maintaining BAST levels above 2450 gallons as specified in their plant procedures, the TS would allow a level below this minimum design value.

The calculations for the LOCA analysis were also reverified and several mathematical errors found. The licensee determined that according to the design bases, 1740 gallons of boric acid solution are needed to mitigate the accident. Adding this to the 1550 gallon shut off point yields 3290 gallons. When the licensee discovered this, they took prompt action to establish new minimum levels for the BASTs. The new minimum level was chosen by taking 3290 gallons (60% tank level) and adding a 5% margin to yield a new minimum tank level of 65%.

The plant has three 5500 gallon BASTs with 41.5 gallons per percent level in the indicating range. One tank per reactor is required by TS and the third tank is a common backup. When this problem was discovered, tank A (Unit 1) was at 80% and tank C (Unit 2) was at 59%. The licensee transferred boric acid solution from tank B (common) to tank C to raise its level to 65%. The inspector observed this process. Wisconsin Electric is discussing this issue with Westinghouse to reevaluate the design bases and the calculations involved in the analysis. This item remains unresolved pending a final determination by the licensee and subsequent review by the NRC (266/89032-01; 301/89032-01).

g. Accidental Steam Burning of Two Maintenance Workers (93702)

On December 11, two maintenance workers received second degree burns over large parts of their bodies when they were sprayed with steam from a heater drain pump discharge check valve they were disassembling. Although the valve was properly isolated, steam pressure was not fully vented from the isolated section of piping before starting work. The two workers were taken to a local hospital for treatment and are expected to remain hospitalized approximately six to eight weeks. Since the work was being performed on the secondary side of the plant, no radioactive systems were involved and therefore no contamination occurred. An Occupational Safety and Health Administration (OSHA) inspector reviewed the accident and is to provide the licensee with his findings.

These reviews and observations were conducted to verify that facility operations were conducted safely and in conformance with requirements established under Technical Specifications, federal regulations, and administrative procedures.

No violations or deviations were identified.

4. Radiological Controls (71707)

The inspectors routinely observed the licensee'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 inspector 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.

All activities were conducted in a satisfactory manner during this inspection period.

No violations or deviations were identified.

5. Maintenance/Surveillance Observation (62703) (61726)

a. Maintenance (62703)

Station maintenance activities of safety-related systems and components listed below were observed/reviewed to ascertain that they were conducted in accordance with approved procedures, regulatory guides and industry codes or standards and in conformance with Technical Specifications.

The following items were considered during this review: the Limiting Conditions for Operation were met while components or systems were removed from service; approvals were obtained prior to initiating the work; activities were accomplished using approved procedures and were inspected as applicable; functional testing and/or calibrations were performed prior to returning components or systems to service; quality control records were maintained; activities were accomplished by qualified personnel; parts and materials used were properly certified; radiological controls were implemented; and fire prevention controls were implemented.

Work requests were reviewed to determine status of outstanding jobs and to assure that priority is assigned to safety-related equipment maintenance which may affect system performance.

Portions of the following maintenance activities were observed/reviewed:

- IT-515B (Revision 2), "Leakage Reduction and Preventive Maintenance Program Test of Safety Injection Test Line and Spray Additive Eductor Line (Refueling)"

Though normally done during an outage, the licensee chose to delay this work until after Unit 2 startup. The procedure was changed to conduct testing at power vice shutdown. The inspector considered the stated reason for the temporary changes, as specified on the change form cover sheet, to be overly broad. It was not evident from this cover sheet that these changes had been adequately reviewed, although each changed step in the actual procedure was initialed. The current procedure governing temporary changes (PBNP 2.1.1) is ambiguous in its requirements. This is a weakness acknowledged by the licensee, who has committed to form a task group to study the problem.

- Correction of excessive packing leakage on Auxiliary Feed Pump F38A discharge control valve (AF 4012).

This work was performed under Maintenance Work Request 894815 using procedure MI 5.2 (Revision 3), "Air Diaphragm-Operated Valve Maintenance."

b. Surveillance (61726)

The inspector observed surveillance testing and verified that testing was performed in accordance with adequate procedures; that test instrumentation was calibrated; that Limiting Conditions for Operation were met; that removal and restoration of the affected components were accomplished; that test results conformed with Technical Specifications and procedure requirements and were reviewed by personnel other than the individual directing the test; and that any deficiencies identified during the testing were properly reviewed and resolved by appropriate management personnel.

The inspector witnessed and reviewed the following test activities:

- ICP 2.5 (Revision 4) I & C Surveillance Test, Safeguards System Logic
- IT-05 (Revision 17) In Service Testing of Containment Spray Pumps, Eductor Supply Check Valves and Sodium Hydroxide Addition Valves
- IT-10 (Revision 17) In Service Testing of Electrically Driven Auxiliary Feed Pump Monthly

The technician performing the test was using an unmarked informational copy of the test procedure to guide his actions. As a result, he commenced a step in the procedure that was deleted in the master copy being used by the control operator directing the test. Since the technician and the control operator maintained good communications, the control operator was able to quickly correct the technician and direct him to reopen the valves he had isolated in error. The inspector discussed this issue with the licensee who indicated that this weakness would be considered by the task group being formed to review procedure control deficiencies.

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

No violations or deviations were identified.

6. Emergency Preparedness (71707)

An inspection of emergency preparedness activities was performed to assess the licensee's implementation of the site emergency plan and implementing procedures. The inspection included monthly review and tour of emergency facilities and equipment, discussions with licensee staff, and a review of selected procedures.

All activities were conducted in a satisfactory manner during this inspection period.

No violations or deviations were identified.

7. Security (71707)

The inspectors, by direct observation and interview, verified that portions of the physical security plan were being implemented in accordance with the station security plan. The inspectors also continued to monitor compensatory measures that have been enacted by the licensee.

a. Safeguards System Degradation (71707)

On December 12, the licensee notified the NRC via the Emergency Notification System (ENS) that a degradation in the detection portion of the safeguards system occurred and was not properly compensated. Corrective measures were taken by the licensee and the issue has been referred to NRC security personnel for evaluation.

b. Fitness For Duty Training (71707)

The licensee implemented their Fitness for Duty program at the start of this year. The inspector reviewed various aspects of this program and observed selected portions of Fitness for Duty training. No concerns were identified. This topic will be covered in additional detail in a future report.

All other activities were conducted in a satisfactory manner during this inspection period.

No violations or deviations were identified.

8. Engineering and Technical Support (71707)

The inspector evaluated licensee 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.

Extensive inspection effort was directed towards the evaluation of an original design deficiency in the DC electrical distribution system. Details are documented in special Inspection Reports No. 266/89033; No. 301/89033.

All activities were conducted in a satisfactory manner during this inspection period.

No violations or deviations were identified.

9. Safety Assessment/Quality Verification (35502) (92701) (90712) (92700)

The licensee's Quality Assurance programs were inspected to assess the implementation and effectiveness of programs associated with management control, verification, and oversight activities. Special consideration was given to issues which may be indicative of overall management involvement in quality matters such as self improvement programs, response to regulatory and industry initiatives, the frequency of management plant tours and control room observations, and management personnel's attendance at technical and planning/scheduling meetings.

a. Quality Assurance (QA) Program Implementation (35502)

A review was conducted of recent inspection reports, SALP reports, licensee event reports, licensee corrective actions, and the Monthly Open Items Status Report (MOISR). The results of this review were used to evaluate the licensee's QA program implementation. The inspector additionally interviewed QA personnel to determine the current structure, focus, and operating practices of the on site and corporate QA organizations. The scope of the inspection effort was expanded to include further evaluation of the proposed violation identified in Inspection Reports No. 266/89033; No. 301/89033. The findings confirmed several suspected weaknesses regarding the effectiveness of the licensee's QA program regarding follow up of QA Audit Finding Reports (AFR).

1. Site Quality Assurance Group

The licensee established a five inspector Site Quality Assurance (SQA) group in April 1989. Locating the group on site is seen as a positive step in improving the effectiveness of the licensee's QA organization. This group evaluates procurement of QA scope replacement and repair parts; conducts surveillance reviews of Maintenance Work Requests (MWR), temporary modifications, tagouts, and other licensee programs; reviews contractor work methods; performs modification request reviews and field verifications; reviews of completed MWRs; evaluates Non-Conformance Reports (NCR) processing and review; and maintains QA scope drawings.

2. Quality Assurance Vertical Slice Audits

One of the programs being implemented by the Nuclear Quality Assurance Division (NQAD) are vertical slice audits of the facilities safety systems. These audits are similar in scope to NRC Safety System Functional Inspections (SSFIs).

To date three of these audits have been performed and a fourth is scheduled for the Spring of 1990. These audits were helpful in the identification of several safety significant issues which have ultimately resulted in improved reliability of the systems inspected. The continued use of these types of audits are viewed as proactive and serve to enhance performance and increase system reliability. One weakness with regard to these audits is the failure of the licensee to adequately respond to the open items that are identified in a timely manner.

3. Follow up on Inspection Report 266/89033 and 301/89033

Inspection Reports No. 266/89033; No. 301/89033 identified a proposed violation (266/89033-02; 301/89033-02) regarding the licensee's apparent failure to take prompt corrective actions for an Audit Finding Report (AFR) item. This finding is considered significant in light of other previous examples of inadequate and untimely corrective actions taken in regards to Licensee Event Reports, cited violations, and a commission order. Coupled with the above previous findings, weaknesses were identified during the review of the QA program implementation that prompted further evaluation of the licensee's program for dealing with open items and the completion of their corrective actions. This was done in an attempt to determine the root cause to the licensee's apparent difficulties with accomplishing corrective actions in a timely manner.

Open Item Tracking

NQAD issues a Monthly Open Item Status Report (MOISR) that lists and categorizes all open items in the deficiency log database. During a review of the MOISR dated December 8, 1989, the inspector counted approximately 430 open items. Of the items counted over 60 items were categorized as having no response and approximately 50 other items were identified as having corrective actions overdue. This indicates that 25% of the items in the MOISR are delinquent and many of the overdue corrective action items have been in the database for over one year. This raises a concern regarding the licensee's ability to obtain timely closure of open items.

Prioritization of open items also appears to be a weakness in the licensee's present open item tracking system. By the inspector's count, the licensee has identified and titled 14 open items on the MOISR as being "Significant Open Items," of those items six are categorized as having no response and five were identified as having corrective actions overdue. This represents a delinquency rate of over 75% for self-identified "Significant Open Items." This problem is further exacerbated by a memo from NQAD by direction from the licensee's senior management, dated May 2, 1989, which identified 20 open items as having the highest priority. Of these 20 items, 16 were still listed in the MOISR although none of them are identified as "Significant Open Items." In addition, 10 of the 16 or 62% of these items were listed as being delinquent.

Based upon the percentage of items, significant or otherwise, that are delinquent and the apparent inconsistency in the prioritization of items it appears that the present method used to track and control the completion of corrective actions is not working in a timely manner to resolve issues. This is of concern to the NRC because the possibility exists that items with possible safety significance are not being promptly addressed.

Review of Quality Assurance Actions for Delinquent Responses

Prompted by concern over the apparent excessive number of delinquent open items, the inspector reviewed the mechanisms used by the licensee to obtain responses. During a review of several Quality Assurance Procedure Manual procedures, covering the various forms and reports used to track open items to closure, the inspector noted that the procedures referred to Quality Assurance Instruction (QAI) PB-7.1, "Follow Up Of Deficiency Reports (Internal)" for the handling of overdue responses. QAI-PB-7.1 prescribes the method to be utilized



by NQAD to obtain timely responses and corrective action to internal deficiencies documented on Audit Finding Reports (AFRs) and other tracking forms. This procedure was initially issued in 1983 and contained the process for the escalation of open items with delinquent responses. The procedure has remained essentially the same except for the addition of overdue corrective responses in 1987.

The current QAI PB-7.1, Revision 5, requires that if a response has not been obtained by the specified due date, the head of the organization responsible for that item shall be informed that the response is overdue. This notification is to be documented on a Communication Memorandum (QAI-1, forms 1.1 and 1.2) and is the first step in the escalation process. The instruction further states that if a response has not been obtained after an additional 15 days, a letter to the responsible department head shall be issued. Another letter shall be issued 15 days later to the appropriate Vice President. Finally, a letter shall be sent to the Chairman of the Board 15 days later.

The inspector reviewed several delinquent open items and interviewed several Quality Assurance personnel to evaluate the use of this procedure. During this review it was evident that the procedure is used sparingly, and, when it was used it is not followed correctly. The procedure makes no allowances for the negotiation of response dates, however, through interviews, it was determined that QA personnel often negotiate and extend response deadlines. Though the extending of specified dates is not in accordance with QAI-PB-7.1 it does not appear to be an unreasonable practice. The problem with this practice is that the extensions are not routinely documented as required by this procedure and QAI-5, "Documenting QA Activities and Informal Communications." This is a pervasive problem that is not limited to specific individuals nor to certain items but common throughout the program.

When QAI-PB-7.1 is initiated it is generally well documented as required, however, it is rarely escalated to the next level as required by the procedure. This escalation is required to take place 15 days after initiation and no provision is made for alternative actions. During discussions with QA personnel several individuals stated that the licensee was reluctant to proceed with further escalation because it would have a negative impact on working relations with the groups responsible for the response or corrective actions. Instead, the licensee most often negotiated a new response date. The initial step in the escalation process appears to be effective, usually resulting in the required response within 30 days. On the relatively rare occasions when the second escalation step is initiated, it is completed as specified in QAI-PB-7.1.

The review of QAI-PB-7.1 identified several pervasive problems with regards to the implementation of the procedure which provided multiple examples of a failure to follow procedure. The review also identified that QAI-PB-7.1 is very restrictive and does not differentiate between items identified as significant and those that are not. It also does not allow for any alternative measures.

Through interviews it was determined that there was a reluctance on the part of the licensee to fully implement the escalation process based on possible negative reactions. The interviews also showed that nonmanagement QA personnel often are required to negotiate with other management personnel with regard to deadlines. These findings indicate a breakdown in the licensee ability to gain timely responses and corrective actions that could have a significant impact on the effectiveness of the licensee's self-inspection program.

The weaknesses identified in the licensee's QA program are significant contributing factors to a failure to take prompt corrective actions but, they do not appear to be the root cause of the problem. Regardless of the identified QA weaknesses the licensee does have a system for the tracking of open items. The licensee also follows up on overdue responses even though not in strict accordance with approved procedures. Therefore, the main problem appears to be a failure on the part of responsible organizations to manage their assigned open items and take the necessary corrective actions in a timely manner. To determine the possible root cause for this problem the inspector interviewed several of the licensee's management personnel.

These interviews revealed one common concern expressed by the managers. That concern is the lack of, or, inadequate use of the necessary resources to allow for prompt evaluation of open items and completion of corrective actions. This appears to be due, in part, to resources that are often reallocated due to changing work loads. Specifically, resources that are shifted to accommodate outage work items and other "hot" issues at the expense of routine work. It was further stated that because the licensee is dedicated to performing quality work, as is apparent by their operating history, the shifting of resources causes delays in the evaluation and closure of open items. This causes delays in the identification of possible safety significant problems associated with some open items like the item identified in proposed violation No. 266/89033-02; No. 301/89033-02.

When resources become available a thorough evaluation appears to be performed and if a safety significant issue is identified adequate corrective actions are taken. However, the delays in evaluating potentially significant open items are viewed by the

NRC as a weakness to take prompt corrective actions. Therefore, the finding of this review appears to substantiate the proposed violation No. 266/89033-02; No. 301/89033-02 and will be evaluated as part of that proposed violation.

Review of Selected Open Items

The inspector selected several representative items from the MOISR which were either overdue or not responded to:

<u>Item</u>	<u>Initial</u>	<u>Due</u>	<u>Status</u>
A-P-87-15-047 (SEC) QP 6-7 is not fully implemented.	12/22/87	5/1/89	CAO *
A-P-88-10-049 (OPS)	10/19/88	3/1/90	(initial response was 4 months late)

Inadequate response to IE Bulletin 88-04.

A-SP-87-01-004 (TRN) DUKE WE-87-02C First line supervisors have not received QC inspector training.	8/21/87	6/1/89	CAO *
A-SP-88-02-009 (ADM) SSFI WE-88-07 Incorrect safety relief valves installed on diesel generator starting air accumulators. Valves replaced but lot card description proposal incomplete.	3/15/88	9/30/88	CAO **
A-SP-88-02-021 (NSE) SSFI WE-88-19 Inadequate breaker coordination study.	3/15/88	2/28/90	
A-SP-88-02-040 (MTN) SSFI WE-88-38 Nonperformance of vendor required preventive maintenance.	3/15/88	7/1/89	CAO **
A-SP-88-02-044 (MTN) SSFI WE-88-42 Inadequately documented post maintenance testing.	3/15/88	3/1/88	CAO **
A-TS-89-02-006 (MTN) RMP-58 Appendix A & B provide inadequate guidance for performing fire barrier penetration visual inspections.	5/19/89	10/1/89	CAO
N-88-008 (MTN) Safety Injection lockout wiring problems noted with various 480 VAC switch gear.	11/11/87	10/1/89	CAO *

N-88-072 (IIE) 4/29/88 6/1/88 NR *
QAS and PBNP personnel are using non-CHES approved chemicals on corrosion resistant material.

N-88-080 (IIE) 5/13/88 9/1/89 CAO (initial response was 4 months late)

Several Reactor Coolant System welds have not been included in the In Service Inspection plan due to drawing inaccuracies.

N-88-101 (MTN) 7/12/88 7/1/89 CAO (initial response was 3 months late)

Technical Specification 15.4.15 required plate inspections for diesel fire pump batteries cannot be performed because battery cases do not allow visibility.

N-88-144 (NSEAS) 10/5/88 10/1/89 NR *
Red tags made for the P106 deep well pump were inadequate because no drawings exist for its level switch controls.

N-88-170 (NPERS) 11/4/88 6/1/89 NR *
The off site dose calculation manual allows high alarm setpoints for detectors RE-229 and RE-230 that could result in exceeding the RETS I-131 discharge limit.

N-89-029 (NSE) 2/16/89 4/1/89 NR *
Valve operator weights listed in the piping isometric drawings are not all accurate.

N-89-223 (NSE) 9/15/89 10/20/89 NR
Present arrangement of the 125 VDC distribution along with procedural practices creates the potential that on loss of panel D-12, D-14; G01 or G02 would fail to start with dual reactor trips.

NR - no response

CAO - corrective action overdue

* - designated by licensee as a significant open item

** - designated as highest priority in a May 2, 1989 licensee memo

b. Licensee Event Report (LER) Review (90712)

The inspector reviewed LERs submitted to the NRC to verify that the details were clearly reported, including accuracy of the description and corrective action taken. The inspector determined whether

further information was required, whether generic implications were indicated, and whether the event warranted onsite followup. The following LERs were reviewed:

*301/89-009 Unexpected "Level Low" Reactor Trip Signal During
Emergency DC Lighting Test

*301/89-003-01 Safety Injection Accumulator Level Detector
Instrument Failure

c. LER Followup (92700)

The LERs denoted by asterisk above were selected for additional followup. The inspector verified that appropriate corrective action was taken or responsibility was assigned and that continued operation of the facility was conducted in accordance with Technical Specifications and did not constitute an unreviewed safety question as defined in 10 CFR 50.59. Report accuracy, compliance with current reporting requirements and applicability to other site systems and components were also reviewed.

d. Information Notice Followup (92701)

The inspector verify the effectiveness of the licensee's program for handling Information Notices (IN). This included the review of selected INs for applicability and the scheduling and performance of appropriate corrective actions if necessary. The following INs were reviewed and appeared to have been sufficiently evaluated to permit closure:

Information Notice No. 87-59: POTENTIAL RHR PUMP LOSS

This IN was superseded by NRC Bulletin 88-04: POTENTIAL SAFETY-RELATED PUMP LOSS. Further followup of this IN was cancelled by a DRP memorandum dated May 19, 1988. Based on DRP direction, this IN is considered to be closed (266/88902-IN and 301/88902-IN).

Information Notice No. 88-01: SAFETY INJECTION PIPE FAILURE

This IN regarded the possible failure due to thermal stresses, of safety injection piping connections to the Reactor Coolant System. The IN specifically identified problems associated with the injection of normal charging flow through a common safety injection tap at facilities that utilize charging pumps to provide high head safety injection. The licensee reviewed this IN and noted that it was not applicable to this plant because charging flow utilizes a separate connection to the RCS and that charging pumps are not used for high head safety injection at this plant. Based on the licensee's response this IN is considered to be closed (266/88903-IN and 301/88903-IN).

Information Notice No. 88-09: REDUCED RELIABILITY OF STEAM-DRIVEN
AUXILIARY FEEDWATER PUMPS CAUSED BY
INSTABILITY OF WOODWARD PG-PL TYPE
GOVERNORS.

This IN regarded overspeed trips of steam-driven auxiliary feedwater (AFW) pumps due to the performance of quick startup tests from a cold condition. The licensee's response stated that PBNP procedure IT-290/295, "Inservice Testing of Auxiliary Feedwater System Check Valves and Flow Indicators," includes quick startups of the steam-driven AFW pumps from a cold condition and that no instabilities or overspeed trips have occurred due to the performance of this test. Based on the response from the licensee this IN is considered to be closed (266/88904-IN and 301/88904-IN).

Information Notice No. 88-51: FAILURE OF MAIN STEAM ISOLATION
VALVES

This IN regarded the failure of main steam isolation valves (MSIVs) to close due to a loss of control air supplied to the valve. The licensee's response indicated the type of MSIVs in question are not in use at this facility. This facility utilizes MSIVs which are reverse oriented check valves that use steam flow to assist in closure instead of air. Based on the response from the licensee, this IN is closed (266/88051-IN and 301/88051-IN).

Information Notice 88-55, "Potential Problems Caused by Single Failure of an Engineered Safety Feature Swing Bus," does not appear to have been reviewed in sufficient detail in light of other licensee findings related to this issue. Further evaluation of the licensee's program for handling Information Notices is needed before a final assessment can be made. This issue will remain unresolved pending such additional review (266/89032-03; 301/89032-03).

e. Site and Corporate Culture Training (71707)

The licensee has recently undertaken a comprehensive cultural adjustment and team building training program. The purpose of this training, conducted by a management consultant, is to closely examine personnel culture and attitude weaknesses at various levels in both the station and corporate offices. The program seeks to identify any problems perceived within the organization, get personnel to admit and confront these problems, and then develop and implement the solutions necessary to overcome them. The inspector considers this program of great potential benefit to the licensee if the concepts of this training are genuinely embraced by nuclear department management. This area will be reviewed in a future report as the program matures.

f. Corporate Management Reorganization (71707)

Wisconsin Electric has reorganized their Senior Corporate Management Structure effective January 1, 1990. Of principal interest is the change in the number of reporting levels for the Nuclear Department. Prior to the change, the Nuclear Department reported directly to the Chief Executive Officer (CEO). The Nuclear Department now reports to the Executive Vice President/Chief Operating Officer, who reports to the President/CEO. The CEO had also previously been the Chairman of the Board but now reports to the Board of Directors. The inspector discussed these changes with the licensee.

Additional examples to a proposed violation (266/89033-02; 301/89033-02) were identified.

10. Outstanding Items (92702)

Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. Unresolved items disclosed during the inspection are discussed in Paragraphs 3.f, 9.a.3, and 9.d.

11. Management Meetings (30702)

A Meeting was held between NRC Region III management and plant management on January 12, 1989, to discuss items of mutual interest and foster improved communications between the licensee and NRC. Discussion topics included the DC electrical distribution system, licensee plans for addressing procedural control weaknesses, potential calculation errors in minimum boric acid storage tank levels, and replacements for departing licensee personnel.

A teleconference was held on January 22, 1989, between NRC Region III management and plant management to discuss information identified during the resident inspectors' review of Quality Assurance Program implementation (Paragraph 9.a.3). The discussion was germane to the issue of the licensee's failure to take prompt corrective actions as detailed in Inspection Reports No. 266/89033; No. 301/89033. This teleconference was conducted instead of convening an addition enforcement conference on the issue discussed in that inspection report.

12. Exit Interview (30703)

A verbal summary of preliminary findings was provided to the licensee representatives denoted in Section 1 on January 19, 1990, at the conclusion of the inspection. No written inspection material was provided to the licensee during the inspection.

The likely informational content of the inspection report with regard to documents or processes reviewed during the inspection was also discussed. The licensee did not identify any documents or processes as proprietary.