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August 3, 1982

Peter B. Bloch, Esquire
Administrative Judge
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Board Panel
U.S. Nuclear Regulatory
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Washington, D.C. 20555

Dr. Oscar H. Paris
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Mr. Frederick J. Shon
Administrative Judge
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RE: In the Matter of Consumers Power Company (Big
Rock Point Nuclear Power Plant), Docket No.
50-155-OLA (Spent Fuel Pool Modification)

Gentlemen:

In accordance with Consumers Power Company's ("Licensee") policy of full disclosure, I am enclosing a draft evaluation report concerning the 1982 INPO review of the Big Rock Point Nuclear Power Plant. This draft report formalizes the handwritten preliminary findings and recommendations which were made available to the Licensing Board and the parties on June 8, 1982 (Tr. 929-931). I am also enclosing a letter from Mr. Rod Krich of Licensee's Nuclear Licensing Department. Mr. Krich's letter explains the procedures and policies used by INPO during its interaction with Licensee and other utilities. Hopefully, Mr. Krich's letter will clarify any misconceptions concerning the various iterations of the annual INPO Evaluation Report.

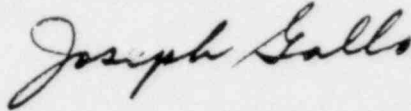
I am also enclosing a letter dated July 28, 1982 from the Nuclear Licensing Administrator, Mr. Vanderwalle to Mr. Crutchfield of the NRC staff. Mr. Vanderwalle's letter seeks clarification from the NRC staff with respect to storage of spent fuel in the Big Rock Point spent fuel pool pending the outcome of the present proceeding. The correspondence referred to in the enclosed letter

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relates to the NRC staff's initial request for information under 10 C.F.R. §50.54(f). All of that correspondence has been served on the Licensing Board and the parties.

Sincerely,

A handwritten signature in cursive script that reads "Joseph Gallo".

Joseph Gallo
(One of the attorneys for
Consumers Power Company)

Enclosures

cc: Service



**Consumers
Power
Company**

RECEIVED
JUL 15 1982

General Offices: 212 West Michigan Avenue, Jackson, MI 49201 • (517) 788-0650

July 8, 1982

DAB 102-82

W. W. Wigley
Institute of Nuclear Power Operations
1820 Water Place
Atlanta, GA 30339

**1982 INPO EVALUATION OF THE BIG ROCK POINT NUCLEAR PLANT -
RESPONSE TO THE DRAFT EVALUATION REPORT**

Consumer Power Company's response to the first draft report of INPO's May, 1982 evaluation of the Big Rock Point Nuclear Plant is enclosed with this letter. Consumers Power Company's response includes INPO's evaluation objectives, findings, and recommendations, as well as our response summary and response to each recommendation. Please note that although your first draft report is dated June 11, 1982, it was not received by Consumers Power Company until June 16, 1982. As a result, we were unable to formulate, review, and return our responses to INPO by the requested date of July 2, 1982. Accordingly, we suggest that future correspondence be sent to us by express mail.

The commitments specified in this response to the Big Rock Point Plant Evaluation Report will be incorporated into an integrated commitment scheduling and prioritization system in the near future. This system is currently being developed as a result of the growing awareness on the part of Consumers Power and the NRC of the increasing burden placed on a utility's limited resources by regulatory requirements as well as other internal and external commitments. This system will allow us to manage our manpower and financial resources effectively while maintaining the safety and reliability of our nuclear plants. For this reason, dates by when we will accomplish the commitments included in our responses are not specified. Consumers Power Company will provide you with specific dates as soon as the baseline integrated commitment schedule is completed and agreed to by the NRC. We will continue to provide you with revised schedules as this baseline schedule changes to accommodate new commitments.

D. A. Bixel

D. A. Bixel
INPO Point of Contact

Enclosure

C: JWReynolds, P26-135A
RBDewitt, P26-117B
FWBuckman, P26-213A

JFFirlit, JSC-230A
DPHoffman, Big Rock Point
PAElbert, P26-213B

DJVandewalle, P24-614B
RMKrich, P24-503
CRSnow, P24-300

SUMMARY

INTRODUCTION

The Institute of Nuclear Power Operations (INPO) conducted an evaluation of Consumers Power Company's Big Rock Point Nuclear Plant during the weeks of May 17 and May 24, 1982. The site is located on the eastern shore of Lake Michigan, five miles northeast of Charlevoix, Michigan. The plant utilizes one 71 megawatt (net electrical) General Electric boiling water reactor. Commercial operation began in November 1965.

PURPOSE AND SCOPE

INPO conducted an evaluation of site activities to make an overall determination of plant safety, to evaluate management systems and controls, and to identify areas needing improvement. Information was assembled from discussions, interviews, observations, and reviews of documentation.

The INPO evaluation team examined station organization and administration, operations, maintenance, technical support, training and qualification, radiological protection, and chemistry. The team also observed the actual performance of selected evolutions and surveillance testing. Corporate activities were not included in the scope of the evaluation, except as an incidental part of the station evaluation. As a basis for the evaluation, INPO used performance objectives and criteria relevant to each of the areas examined; these were applied and evaluated in light of the experience of team members, INPO's observations, and good practices within the industry.

INPO's goal is to assist member utilities in achieving the highest standards of excellence in nuclear plant operation. The recommendations in each area are based on best practices, rather than minimum acceptable standards or requirements. Accordingly, areas where improvements are recommended are not necessarily indicative of unsatisfactory performance.

DETERMINATION

Within the scope of this evaluation, the team determined that the plant is being operated in a safe manner by qualified personnel.

The following beneficial practices and accomplishments were noted:

The plant is in excellent material condition.

The morale and dedication of the plant staff are impressive.

An excellent program is used for conducting technical reviews of industry Significant Operating Experience Reports.

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The plant is in excellent material condition.

The morale and dedication of the plant staff are impressive.

An excellent program is used for conducting technical reviews of industry Significant Operating Experience Reports.

Radiation and contamination levels are low throughout the plant.

A comprehensive ALARA program is in use to minimize personnel radiation exposure.

Improvements were recommended in a number of areas. The following are considered to be among the most important:

The control of low levels of radioactive contamination needs improvement.

The control and storage of consumable material in containment need improvement.

A chemistry quality control program is needed to ensure that the desired accuracy is achieved in analytical measurements.

Improvements to the containment emergency exit process are needed.

Improved adherence to plant procedures is needed in radiological protection, chemistry, material storage, and in the control of welding electrodes.

In each of the areas evaluated, INPO has established PERFORMANCE OBJECTIVES and supporting criteria. All PERFORMANCE OBJECTIVES reviewed during the course of this evaluation are listed in APPENDIX II.

Findings and recommendations are listed under the PERFORMANCE OBJECTIVES to which they pertain. Particularly noteworthy conditions that contribute to meeting PERFORMANCE OBJECTIVES are identified as Good Practices. Other findings describe conditions that detract from meeting the PERFORMANCE OBJECTIVES. It would not be productive to list as Good Practices those things that are commonly done properly in the industry since this would be of no benefit to Consumers Power Company or to INPO's other member utilities. As a result, most of the findings highlight conditions that need improvement.

The recommendations following each finding are intended to assist the utility in ongoing efforts to improve all aspects of its nuclear programs. In addressing these findings and recommendations, the utility should, in addition to correcting or improving specific conditions, pursue underlying causes and issues.

As a part of the second and succeeding evaluations of each station, the evaluation team will follow up on responses to findings in previous reports. Findings with response actions scheduled for future completion have been carried forward in APPENDIX I to this report. In areas where additional improvements were needed, a new finding that stands on its own merit has been written. Thus, this report stands alone, and reference to previous evaluation reports should not be necessary.

The findings listed herein were presented to Consumers Power Company management at an exit meeting on May 28, 1982. Findings, recommendations, and responses were reviewed with Consumers Power Company management on _____, 1982. Responses are considered

To follow the timely completion of the improvements included in the responses, INPO requests a written status by . Additionally, a final update will be requested six weeks prior to the next evaluation.

The evaluation staff appreciates the cooperation received from all levels of Consumers Power Company.

CONSUMERS POWER COMPANY

Response Summary

Consumers Power Company concurs with INPO's determination that the Big Rock Point Plant is "... being operated in a safe manner by qualified personnel." Consumers Power Company also wants to acknowledge that the 1982 evaluation was superior to the 1981 evaluation. This superior evaluation was a result of the professional manner used by the INPO evaluation team of comparing actual performance observed with their established "Performance Objectives."

Consumers Power Company appreciates INPO's recognition of the good practices and accomplishments experienced at Big Rock Point and feels that this type of feedback provides an additional incentive to all the personnel for continuing to improve plant performance and safety.

In areas which were identified as needing improvement, Consumers Power Company has already initiated administrative and material changes that will result in those areas of plant operation becoming areas of "good practices and accomplishments."

Consumers Power feels that the implementation of our Nuclear Operations Department Standards during the remainder of 1982 will result in meeting INPO's Performance Objectives. Specifically, continued development in our Nuclear Operations Training Program, implementation of both the Corporate Health Physics and Chemistry Manuals, plus the additional experience of personnel that were added when the staff size was increased in 1981, will result in performance improvements in those areas considered the most important by INPO. Consumers Power intends to continue to dedicate the human and physical resources necessary to meet all of the desired Performance Objectives.

Consumers Power and the Big Rock Point Plant staff will continue to welcome follow-up INPO evaluations to assess program implementation and effectiveness. Also, the plant staff wishes to encourage dialogue with INPO evaluation team members throughout the year.

ORGANIZATION AND ADMINISTRATION

MANAGEMENT ASSESSMENT AND QUALITY PROGRAMS

PERFORMANCE OBJECTIVE: Management should assess station activities to ensure and enhance quality performance of all aspects of nuclear plant operation.

Finding
(OA.3-1)

The following Good Practice was noted: Comprehensive observations of selected operating and maintenance activities are conducted by quality control personnel. In addition to identifying compliance problems, these observations frequently result in specific recommendations to improve procedures, improve job efficiency, eliminate personnel safety hazards, and reduce radiation exposure.

Finding
(OA.3-2)

The following Good Practice was noted: An effective company-wide program is in place to monitor the implementation of corrective action. The system tracks corrective action resulting from a number of sources and provides monthly status reports in a useful format. All items are tracked until an independent verification of their completion is made by quality assurance personnel. The overall program also includes a systematic method of trend analysis of deviation reports (which include audit findings), event reports, nonconformance reports, and recommendations to stop work.

Finding
(OA.3-3)

Effective controls governing the use and storage of solvents and other chemicals used for cleaning need to be established. The widespread availability of these chemicals, particularly in containment, increases the potential for chloride contamination of plant systems. A procedure to control chemicals entering the radiologically controlled area has been drafted, but has not been approved or implemented.

Recommendation Establish control over solvents and other chemicals used for cleaning purposes.

Response The required procedure has been written and sent to the PRC for review. Procedure implementation will occur by September, 1982.

OPERATIONS

PLANT STATUS CONTROLS

PERFORMANCE OBJECTIVE: Operational personnel should be cognizant of the status of plant systems and equipment under their control, and should ensure that systems and equipment are controlled in a manner that supports safe and reliable operation.

Finding
(OP.3-1)

The following Good Practice was noted: The station has an excellent system for ensuring that equipment tagged for placement of a Workman's Protection Clearance receives an independent verification by two qualified operators in addition to the maintenance person responsible for that work.

OPERATIONS PROCEDURES AND DOCUMENTATION

PERFORMANCE OBJECTIVE: Operational procedures and documents should provide appropriate direction and should be effectively used to support safe operation of the plant.

Finding
(OP.5-1)

Uncontrolled notes, graphs, portions of procedures, labels, and drawings used as operator aids exist throughout the plant.

Recommendation

Implement a policy to control the posting of operator aids. This policy should include a mechanism to ensure that necessary posted materials remain current and reflect approved operating information. The use of posted information should be minimized.

Response

P&IDs posted around the plant were put on controlled status before the INPO review. However, some discrepancies were noted. These will be corrected by the fall of 1982. A review of operator aids around the plant will be done to see if there are other aids which should be controlled. Examples such as hand written notes and partial procedures will be removed or controlled by providing a permanent label, tag, graph, etc. that has been approved by the controlling department.

OPERATIONS FACILITIES AND EQUIPMENT

PERFORMANCE OBJECTIVE: Operational facilities and equipment should effectively support plant operation.

Finding
(OP.6-1)

The sequence of operations required to open the containment emergency exit is not understood by all personnel who work inside containment. The location of the inside and outside door operating levers is confusing. The opening levers are not appropriately labeled nor are adequate operating instructions posted.

Recommendation

Perform an evaluation of the emergency door exit process and make appropriate changes to ensure rapid and straightforward operation. Adequate operating instructions should be prominently posted near the door opening levers. Specific training on the operation of the containment exit door, including a practical demonstration, should be a prerequisite for all personnel working inside the containment.

Response

The emergency door handle for the "inner" door has been painted and labeled in large letters to emphasize proper operation. The need to post operating instructions locally will be evaluated and implemented, if necessary, during the third quarter of 1982. All new plant employees, who have access to the containment building, will be trained, during their initial orientation, on the use of the emergency escape lock. Retraining will occur for site employees during normal GET requalification.

Finding
(OP.6-2)

Control of consumable supplies inside containment needs improvement. Plastic sheeting, plastic bags, contamination clothing, rubber and cloth gloves, shoe covers, rope, and fire hose covers were noted at various locations inside containment.

Recommendation

Perform a detailed inspection of the containment to ensure that all loose equipment and consumable supplies are properly restrained. Consider the use of material cages to store anticontamination clothing at change areas.

Response

Inspection of containment for loose equipment and or consumable supplies has been conducted and will continue to be conducted on a regular basis. The lower level of the sphere already has some containers for storing anti-contamination clothing. The plant staff is continuing to evaluate methods for controlling consumable supplies and will take any additional necessary corrective actions, such as providing more storage containers, by the fourth quarter of 1982.

MAINTENANCE

PREVENTIVE MAINTENANCE

PERFORMANCE OBJECTIVE: The preventive maintenance programs should contribute to optimum performance and reliability of plant equipment.

Finding
(MA.5-1)

Preventive and corrective maintenance documentation is not reviewed to evaluate trends and identify recurring problems. The Consumers Power Company Maintenance Management Improvement Program (MMIP) establishes methods for reviewing work history and preventive maintenance records. However, these methods have not been implemented for the Big Rock Point Plant.

Recommendation

Implement the Equipment History Reporting System Overview described in the MMIP for the Big Rock Point Plant. Ensure that the program will provide for proper review of all work history records and for necessary updating of the Preventive Maintenance Program.

Response

We presently receive the equipment history and reports that are described in the MMIP. These only ensure that we get proper history. In order to review the history properly, the Big Rock Point Plant will establish a system that will periodically review the PACS System to ensure PM is performed, and/or are scheduled at the proper frequencies. This system will be established by the beginning of 1983.

MAINTENANCE FACILITIES AND EQUIPMENT

PERFORMANCE OBJECTIVE: Facilities and equipment should effectively support the performance of maintenance activities.

Finding
(MA.8-1)

Control and accountability of welding electrodes are not always in accordance with Big Rock Point Procedure WMS-1, Welding Procedure Specification. The following examples were noted:

- a. Low hydrogen (E-7018) welding electrodes were observed in many areas of the plant. These electrodes were not properly stored or identified.
- b. Accountability of welding electrodes after issue does not occur and could result in misuse.

Recommendation Require more rigorous adherence to station welding procedures. In particular, ensure that low-hydrogen welding electrodes are kept in a controlled environment and that unused welding electrodes are properly accounted for after job completion.

Response Storage of the Low Hydrogen Electrodes will be conducted in a more careful manner (ie, in Stockroom or in oven on work bench). Remaining containers will be returned to Stockroom.

 Accountability will be maintained by an inspection that will be included with the monthly cleanliness and housekeeping verification.

Finding
(MA.8-2) The storage of quality and nonquality materials needs improvement. The storeroom and warehouse are overcrowded and cluttered, and the materials in the warehouse are not adequately protected from fire or extreme environmental conditions.

Recommendation Conduct an evaluation of material storage facilities. This evaluation should include action needed to ensure proper storage control of parts and material from the time they are received until they are issued for plant use. Consideration should also be given to the following:

- a. Increased fire protection capability
- b. Periodic servicing of stored equipment and control of shelf life
- c. Appropriate segregation of chemicals and combustible materials
- d. Environmental protection of stored items
- e. Good housekeeping practices for storage facilities

Response The plant staff, in coordination with the Administrative Services and Property Protection Departments in our General Office, will conduct a evaluation of material storage facilities. This evaluation, which will address those items specified in the recommendation, will be completed by the end of 1982.

Finding
(MA.8-3)

Cranes, slings, and selected lifting equipment are not periodically load tested to verify safe load lifting capability.

Recommendation

Implement a program for periodic load testing of cranes, slings, and other lifting equipment. Special emphasis should be placed on lifting equipment used on and around safety-related components.

Response

A load testing and/or inspection program will be implemented prior to the next refueling outage. The content of the program is still being evaluated, but it will include periodic testing of lifting equipment used on/or around safety related equipment.

TECHNICAL SUPPORT

OPERATING EXPERIENCE REVIEW PROGRAM

PERFORMANCE OBJECTIVE: Industry-wide and in-house operating experiences should be evaluated and appropriate actions undertaken to improve plant safety and reliability.

Finding
(TS.3-1)

A comprehensive, timely evaluation of INPO Significant Event Reports (SERs) is not being performed. A satisfactory program is in place for screening and reviewing SERs, but this program is not being effectively utilized. A limited review of incoming SERs is performed to identify obvious significant events; however, the follow-up and documentation are not being performed.

Recommendation

Increase attention to ensure effective utilization of the existing SER evaluation program. Emphasis should be placed on the need for a comprehensive review, follow-up, and documentation of each SER.

Response

The program for processing SERs has been revised by the Nuclear Operations Department Standard (NODS) A19, "Nuclear Operating Experience Review Program", issued on April 1, 1982. The redefined program has established the following milestones with respect to processing of SERs.

- Initial review of applicability will be performed at the General Office within five working days of receipt of operating experience information.
- Evaluation of each recommendation and the planning of appropriate corrective actions will be completed by General Office or plant personnel within 60 days of receipt of operating experience information.

Procedures to implement NOD Standard A19 will be completed by the beginning of 1983. As an interim measure, the foregoing program has been implemented in practice within the plant (eg, comprehensive review) and centralized control (eg, follow-up and documentation) has been assigned to the Nuclear Licensing Department.

Finding
(TS.3-2)

Operations and Maintenance Reminders (O&MRs) are not routed to operations and maintenance personnel. Operations and maintenance supervisors have not reviewed the 81 O&MRs issued to date for possible application at Big Rock Point.

Recommendation Establish a program for the dissemination and review of O&MRs. The O&MRs should be routed directly from the NOTEPAD information network to appropriate plant staff personnel for review.

Response The operating experience assessment program now includes the review and dissemination of O&MRs.

Finding
(TS.3-3) Plant operators receive operating experience information (both in-house and industry) that is redundant, unnecessary, and not timely. The process in place to ensure the feedback of operating experience to operating personnel is not effective.

Recommendation Improve the existing program for distribution of operating experience information to plant personnel and departments. The program should provide information in a timely manner, prevent distribution of conflicting or contradictory information, and minimize the distribution of unnecessary information.

Response The existing program for distribution of operating experience information to plant personnel and departments will be improved by implementing the Nuclear Operations Department Standard A19 described in our response to Finding TS.3-1. When implemented in the beginning of 1983, this program will ensure that applicable operating experience information is provided to the appropriate plant personnel in a timely manner, and that conflicting, contradictory, and unnecessary information is not distributed to plant personnel.

In the interim, before the final mechanisms for the review and evaluation of operating experience information can be established, the Nuclear Licensing Department will distribute all applicable information to the plant.

Finding
(TS.3-4) The status of actions taken on Significant Operating Experience Reports (SOERs) shows that an effective program has been implemented to provide timely action. Of the 107 SOER recommendations to date, there are seven recommendations in a pending status.

Recommendation status is as follows:

<u>Number of Recommendations</u>	<u>Action Taken</u>
48	Satisfactory
52	Not applicable
7	Pending
0	Need further review

The following recommendations are pending action:

<u>SOER Number</u>	<u>Recommendation Number</u>
80-2	1 and 2
82-2	1, 2, 3, 4 and 5

An update on the status of each recommendation listed in the "pending action" category shown above is requested in the six-month follow-up response to this report. In addition, the status of each immediate action (red tab) SOER recommendation received subsequent to this evaluation should be included in the six-month follow-up response. A tabular summary, similar to that above, is requested.

Recommendation

Complete action as appropriate on all SOER recommendations listed above. Provide the status of each recommendation in the response to this report.

Response

Action on SOER recommendations will continue to be taken in a timely manner. Consumers Power has completed its evaluation of SOER 82-2 and determined that corrective actions are not necessary. As a result of our reviews of SOER 80-2 some plant modifications were recommended and are still in progress.

As has been the practice for the last two INPO evaluations, Consumers Power will to continue have the status of SOER recommendations available at future INPO evaluations.

PLANT MODIFICATIONS

PERFORMANCE OBJECTIVE: Plant modification programs should ensure proper review, control, implementation, and completion of plant design changes in a safe and timely manner.

Finding
(TS.4-1)

Operators are not always provided updated drawings prior to placing modified systems in service. Drawing Change Notices (DCNs), which update drawings used by control operators for plant operation, are sometimes issued after returning equipment to service.

Recommendation

Revise the modification program to provide plant operators with the updated, as-built drawings used to operate the plant prior to returning equipment to service.

Response

Prior to the operability authorization sign-off by the Operations Superintendent, the Plant Project Engineer prepares a training package for the modification. This package includes affected P&IDs and schematic diagrams (drawings required by Operations) but does not include mechanical and electrical layout drawings, circuit schedules, raceway schedules, etc, which in some cases may require "as-built" changes and are not immediately completed.

The training package is utilized by the Nuclear Operations Training Department (NOTD) to train all operators on the affected system prior to assuming their shift responsibilities for the affected system. The drawings in the training packages may consist of sketches and/or "marked-up" sections of existing plant drawings and in some cases, copies of the "red-lined" changes to be submitted on a Drawing Change Notice (DCN) at a later time. In essence, the information concerning plant modifications which is required by Operations Department is furnished, although all drawings are not revised.

Following completion of the modification, the Plant Project Engineer or General Office PM & MP Engineer prepares the drawing change package. This effort may take considerable time to prepare as a significant number of drawings can be affected. After a technical review of the DCN package is performed, the DCN package is forwarded to the Document Control Center (DCC).

The DCC must prepare four copies of each drawing change for distribution to the full-size controlled drawing files in the plant. In addition, DCC must prepare revision notices to Volume 22 holders denoting the area on each drawing affected with reference to the appropriate DCN so that the Volume 22 holder can see the change of the full size controlled drawing.

To require that all drawings be revised prior to declaring a system operable creates an impediment to plant startup. In the case of minor modifications, extensive drawing changes may require from several days to weeks before an all inclusive DCN can be submitted.

Finding
(TS.4-2)

Final as-built drawings are not completed and issued in a timely manner. A review of the DCN status log maintained by Document Control indicated some DCNs dating back to 1979 have not been incorporated in as-built plant drawings.

Recommendation Reduce the backlog of final design drawings associated with completed modifications. Implement a mechanism to ensure that final design drawings are completed in a timely manner after completion of plant modifications.

Response Reorganizations in the General Office in the last two years have resulted in a greater emphasis on the control of engineering records. The Engineering Records Center (ERC) has been separated from other document control activities. The ERC is streamlining their QA procedures in an effort to expedite the updating of revised plant drawings ("redlines"). Additional technical drafting staff has been provided to complete drawing revisions in a more timely manner.

The Big Rock Point Plant staff will implement a "tickler" system to check on all open DCNs on a six-month basis.

Finding
(TS.4-3)

The program for handling jumpers and lifted leads needs improvement in the following areas:

- a. A unique method for identifying and controlling jumpers does not exist.
- b. An independent technical review is not conducted in conjunction with the shift supervisor review.
- c. A mechanism does not exist to ensure that long-standing jumpers or lifted leads are considered for permanent plant modifications.

Recommendation Evaluate and improve the existing program for handling jumpers and lifted leads in the areas identified above.

INPO Good Practice OP-202, "Temporary Bypass, Jumper, and Lifted Lead Control," could be of assistance in this effort.

Response A review of OP-202 will be done to see if it fits the conditions encountered at Big Rock. An evaluation of the handling of jumper and lifted leads will be completed and any necessary changes implemented by the beginning of 1983.

TECHNICAL SUPPORT PROCEDURES AND DOCUMENTATION

PERFORMANCE OBJECTIVE: Technical support procedures and documents should provide appropriate direction and should be effectively used to support safe operation of the plant.

Finding
(TS.7-1)

The two control room copies of the plant manual that contain the piping and instrument diagrams (P&IDs) are not kept current. These P&ID manuals are used by control operators in preparing system tagouts and valve line-ups.

Recommendation

Increase management attention and review procedural controls to ensure that control room copies of the piping and instrumentation diagram manuals are kept current.

Response

Management will review the procedural controls and initiate the necessary changes to ensure a current set of P&IDs are maintained in both the Control Room and Shift Supervisors offices. All necessary actions will be completed by September 1, 1982.

TRAINING AND QUALIFICATION

TRAINING ORGANIZATION AND ADMINISTRATION

PERFORMANCE OBJECTIVE: The training organization and administrative systems should ensure effective control and implementation of training activities.

Finding
(TQ.1-1)

Station personnel do not receive training on applicable industry operating experiences. Appropriate industry operating experience reports, as well as information on operations and maintenance personnel errors, are not provided to the training department.

Recommendations

Provide training on appropriate industry operating experience reports to plant personnel. Additionally, establish a system to provide the onsite training department with applicable SOERs, SERs, and O&MRs. This system should also provide generic information on personnel events, such as errors in operations or maintenance working practices, personnel communication errors, radiological protection practices, and adherence to procedural requirements and technical specifications.

Response

The Administrative Procedures, Big Rock Point Plant Volume 1, will be revised to reflect the requirements of Nuclear Operations Department Standard A-19 (see responses to Findings TS 3.1 and TS 3.3). This Standard will be implemented by the beginning of 1983.

NONLICENSED OPERATOR TRAINING AND QUALIFICATION

PERFORMANCE OBJECTIVE: The nonlicensed operator training and qualification program should develop and improve the knowledge and skills necessary to perform assigned job functions.

Finding
(TQ.2-1)

Auxiliary operators do not complete training on appropriate plant-specific systems prior to assuming watchstanding responsibilities.

Recommendations

Revise the qualification program for auxiliary operators to include training on plant-specific systems. In addition, provide for formal evaluations to verify the trainee's understanding of program content. The INPO document, "Nuclear Power Plant Non-Licensed Operators - Guidelines for

Qualification Programs" (GPG-04), provides recommendations that could be of assistance in this effort.

Response

The approved Consumers Power Company Nuclear Operations Training Department Non-Licensed Operator Training Program, for which lesson plans are now being written, addresses this problem. Specifically, the following topics will be taught prior to the auxiliary operators being assigned to the plant: Nuclear Power Plant Fundamentals; General Employee Training; First Aid and CPR; Fire Brigade Fire Fighting; Effective Reading; Basic Physics; Effective Writing; Radiation Protection (job related); Verbal Communications; Fluid Flow; and Water Treatment Systems.

In addition to the above, the auxiliary operators will be given plant specific systems training prior to his being certified as qualified (reference Consumers Power Company-NOTD Non-Licensed Operator Training Program Document Control Uniform Filing Index Number A200*06*26*13). This program will be implemented by the end of 1982.

LICENSED OPERATOR TRAINING AND QUALIFICATION

PERFORMANCE OBJECTIVE: The licensed operator training and qualification program should develop and improve the knowledge and skills necessary to perform assigned job functions.

Finding
(TQ.3-1)

Lesson plans and associated training materials have not been completed for the reactor operator and senior reactor operator courses. Additionally, not all plant system descriptions have been updated to reflect actual plant conditions. It is recognized that considerable progress has been accomplished in these areas within the last year.

Recommendation

Continue efforts in these areas so that meaningful, up-to-date information can be provided to licensed operator and senior licensed operator candidates in a timely manner.

Response

Consumers Power Company recognizes that continued effort dedicated to this area is essential to effective training and will maintain its current level of activity. Completion date is targeted for the beginning of 1983.

RADIOLOGICAL PROTECTION

RADIOLOGICAL PROTECTION ORGANIZATION AND ADMINISTRATION

PERFORMANCE OBJECTIVE: The organization and administrative systems should ensure effective control and implementation of the radiological protection program.

Finding
(RP.1-1)

Plant personnel do not always comply with appropriate radiological protection procedures and practices. The following examples were observed:

- a. Eating, smoking, and chewing gum in radiologically controlled areas where this is prohibited
- b. Surveying for personnel contamination at a rate faster than required by posted instructions at access control
- c. Not surveying for personnel contamination when leaving access control
- d. Not properly surveying for loose surface contamination on tools and equipment brought through access control
- e. Not requalifying on the requirements of the qualification check-off sheets in the specified time frame by some senior health physics technicians

Recommendation

Ensure that all supervisory personnel are made aware of their responsibility to enforce the plant's radiological protection procedures and practices. Stress the need to adhere to radiological protection procedures and practices in the training of plant and contractor personnel.

Response

Items a,b,c, and d: The necessity to comply with established radiological protection procedures and policies will be emphasized to plant personnel by increasing management attention to this area.

Item e: See response to RP.2-1.

RADIOLOGICAL PROTECTION PERSONNEL QUALIFICATION

PERFORMANCE OBJECTIVE: The radiological protection qualification program should ensure that radiological protection personnel have the knowledge and practical abilities necessary to effectively implement radiological protection practices.

Finding
(RP.2-1)

The health physics and chemistry technician retraining programs do not include plant-specific material. It is recognized that the corporate training organization has recently implemented an advanced training program for technicians; however, this program does not include plant-specific information.

Recommendation

Modify the retraining programs to include the following:

- a. Changes to department and plant radiological protection and chemistry procedures
- b. Review of radiological incident trends
- c. Proper operation of new equipment
- d. Solutions to the weaknesses in the implementation of the health physics and chemistry programs identified by departmental supervisors
- e. Modifications to plant systems that could affect the radiological conditions in the plant

Response

Classes in advanced plant systems have been conducted for some Chemistry and Health Physics Technicians. Advanced system classes for the remainder of the Chemistry and Health Physics Technicians will be completed in 1982. A program to satisfy the other items of the recommendation will be implemented by the fall of 1982.

A Senior Plant Technician has been directed to spend a significant portion of his time following departmental activities and will conduct the on-the-job training. He will also oversee sign-off of qualification sheets.

GENERAL EMPLOYEE TRAINING IN RADIOLOGICAL PROTECTION

PERFORMANCE OBJECTIVE: General employee training should ensure that plant personnel, contractors, and visitors have the knowledge and practical abilities necessary to effectively implement radiological protection practices associated with their work.

Finding
(RP.3-1)

The general employee training program in radiological protection does not include the following plant-specific information:

- a. Reviews of changes to radiological protection procedures and practices
- b. Reviews of radiological incidents
- c. The requirement to demonstrate practical skills, such as the proper use of personnel contamination monitoring equipment
- d. The use of new radiological protection equipment

Recommendation

Provide periodic retraining in radiological protection for plant workers. Include changes to the plant's radiological protection program, which all workers should be aware of, and weaknesses identified in the workers' compliance with radiological protection procedures and practices. Additionally, training in health physics fundamentals should be provided to maintain the workers' level of competence.

Response

Corrective action for this finding is already in progress. The new Basic Radworker Course, which will be mandatory for all individuals who work in the controlled area, will meet (along with our General Employee Training) the intent of INPO Guidelines for GET published February, 1982. Requalification will be mandatory for all radworkers.

Revisions to our General Employee Training and Visitor Indoctrination Program as well as the Nuclear Operations Department Standard H-01 will also be considered and implemented, if necessary, by the beginning of 1983.

EXTERNAL RADIATION EXPOSURE

PERFORMANCE OBJECTIVE: External radiation exposure controls should minimize personnel radiation exposure.

Finding
(RP.4-1)

The following Good Practice was noted: An extensive personnel exposure reduction (ALARA) program has been implemented that includes extensive preplanning for high exposure jobs, training of workers prior to job commencement, and post-job reviews to determine the effectiveness of exposure reduction techniques.

RADIOACTIVE CONTAMINATION CONTROL

PERFORMANCE OBJECTIVE: Radioactive contamination controls should minimize the contamination of areas, equipment, and personnel.

Finding
(RP.9-1)

Several conditions were observed that have the potential for spreading low-level radioactive contamination. Examples include the following:

- a. Tools and equipment used in the radiologically controlled areas are not uniquely marked to preclude their use in uncontrolled areas of the plant.
- b. Materials removed from the radiologically controlled areas are not always surveyed for contamination by health physics.
- c. All vacuum cleaners used in radiologically controlled areas are not equipped with high efficiency particulate air (HEPA) filters to preclude the possibility of spreading airborne contamination.
- d. Cotton work gloves, which do not provide adequate contamination protection, are frequently used by personnel when working on contaminated equipment.
- e. Chairs, tools, and equipment were found in clean areas of the plant with fixed contamination and, in one instance, smearable contamination.

Recommendation

Evaluate the programs in place for controlling the spread of contamination and improve these programs as appropriate. Correct the items identified above as part of this effort.

Response

The contamination control program will be assessed in conjunction with developing the retraining listed in the response to RP.1-1. This retraining will address release of contaminated material from radiologically controlled areas along with proper frisking procedures. The use of non-filtering vacuum cleaners and cotton gloves will be evaluated and changes, if any, will be made by the end of 1982.

CHEMISTRY

CHEMISTRY CONTROL

PERFORMANCE OBJECTIVE: Chemistry controls should ensure optimum chemistry conditions during all phases of plant operation.

Finding (CY.3-1)	Purge times, based upon sample line volumes and flow rates, have not been calculated for each sample station. Standard purge times are specified in procedures, but the basis for these purge times is not known, and technicians do not always purge for the specified time.
Recommendation	Establish purge rates and times for each sample station based upon sample line volumes. Train the technicians to observe the correct purge rates and times to ensure representative samples while minimizing radioactive effluents.
Response	Purge times on sample lines will be re-examined and entered into the appropriate procedures. This will be accomplished by the fall of 1982.

LABORATORY ACTIVITIES

PERFORMANCE OBJECTIVE: Laboratory and counting room activities should ensure accurate measuring and reporting of chemistry parameters.

Finding (CY.4-1)	There is no formal chemistry quality control program to routinely check the accuracy of analyses.
Recommendation	Implement a quality control program that will address the following: <ul style="list-style-type: none">a. Frequent analyses of unknown spiked samplesb. Frequent analyses of standards in conjunction with sample analysesc. Control of reagents by specifying reagent shelf-lives and expiration datesd. Splitting radiochemical samples with other facilities

Response

A quality control program will be established in conjunction with implementation of the Corporate Chemistry Standard. The Standard is being reviewed and will be implemented in 1983. Items a, b, and d of the recommendation will be evaluated for inclusion in this quality control program.

The few reagent bottles that have no shelf life information specified because of the stability of the reagent, will be corrected.

Finding
(CY.4-2)

Laboratory activities do not always ensure accurate analytical results. Problems were observed in the chloride analysis, the oxygen analysis, pH meter standardization, conductivity cell constant determination, and in the verification of analytical water purity.

Recommendation

Conduct a review of laboratory analytical activities. Consider the following items as part of this review:

- a. Technicians should be instructed in the techniques necessary to obtain valid results in the oxygen and chloride analyses. Include the need to mix reagents thoroughly and precautions against contamination.
- b. The turbidimetric method of chloride analysis is questionable in the low ppb range. The plant should consider changing to a more reliable and sensitive test.
- c. The pH meters should be standardized at least daily and have annual electronic calibrations.
- d. Cell constants should be determined for the conductivity cells at least quarterly.
- e. Laboratory deionized water should be routinely checked for purity prior to use in preparing standards and reagents.

Response

- a. A Senior Technician has been assigned to plant specific training (see response to RP.2-1)
- b. The method of chloride analysis will be changed from the turbidimetric method to a selective ion probe procedure. Implementation to be complete by the end of 1982.
- c. The pH meters will be calibrated daily and have an annual electronic calibration.
- d. Procedures will be developed to check, at least quarterly, the cell constants on conductivity meters.
- e. A new lab demineralizer has been ordered with a built-in conductivity sensor on it to ensure the quality of our laboratory deionized water. This demineralizer is scheduled for delivery by the fall of 1982.

CHEMICAL AND LABORATORY SAFETY

PERFORMANCE OBJECTIVE: Work practices associated with chemistry activities should ensure the safety of personnel.

Finding
(CY.5-1)

Housekeeping and chemical storage practices are not adequate in the chemistry laboratory and in the iron and copper sample facility.

Recommendation

Upgrade housekeeping and chemical storage practices in chemistry facilities. As part of this effort, consider the following:

- a. Obtain proper storage facilities for flammable chemicals.
- b. Develop laboratory procedures to control toxic chemicals, remove obsolete chemicals, and minimize accumulation of radioactive liquid samples.
- c. Place the iron and copper sample sink on a periodic clean-up schedule.
- d. Refer to the National Fire Protection Standards, Pamphlets 30, 49, and 491, for information regarding flammable and hazardous chemical storage.

Response

- a. A metal storage cabinet for flammable chemicals will be considered.
 - b. A procedure is being developed for toxic chemical use. It will be implemented by the end of 1982. Chemicals stored in storage area A in the Chemistry Lab will be re-examined.
 - c. Housekeeping will be part of the training provided by the Senior Technician following plant specific training.
 - d. General chemistry storage practices will be implemented by the Corporate Chemistry Standard, which will be implemented in 1983.
-



**Consumers
Power
Company**

David J VandeWalle
Nuclear Licensing Administrator

COPY

General Offices: 1945 West Parnall Road, Jackson, MI 49201 • (517) 788-1636

July 28, 1982

Dennis M Crutchfield, Chief
Operating Reactors Branch No 5
Nuclear Reactor Regulation
US Nuclear Regulatory Commission
Washington, DC 20555

DOCKET 50-155 - LICENSE DPR-6 -
BIG ROCK POINT PLANT - REQUEST FOR
CLARIFICATION - SPENT FUEL POOL
STRUCTURAL ADEQUACY

NRC letter dated May 21, 1982 requested additional information concerning the adequacy of the Big Rock Point spent fuel pool. The letter specifically requested Consumers Power Company to provide justification for continued operation of the facility considering that safety grade equipment is not available to cool the pool and containment access could be limited by a LOCA. Our letter of June 4, 1982 provided response to the NRC letter and specifically reiterated staff concerns regarding access limitations during LOCA conditions by quoting the above "justification" statement. Your letter of July 2, 1982 enclosed the SER in support of our conclusions but neglected to address the applicability of the May 21, 1982 NRC concern - ie access limitations during a LOCA (power operation). Hence, your action statement necessitates NRC review and approval of any spent fuel pool heating analysis prior to core unload rather than prior to the start-up following the plant outage.

By telephone conversations on July 8, 1982, Mr Richard Emch of your staff was notified of our concern in minimizing the plant outage time by having the ability, to unload the core, "in part", via use of the spaces remaining in the existing Spent Fuel Pool Racks. A clarification to your July 2, 1982 letter was requested. By telephone conversation on July 9, 1982, Consumers Power Company was requested to specify our concern by letter. It is therefore the intent of this letter to request that clarification to your July 2, 1982 letter be provided to establish its applicability to "access limitations during a LOCA" as expressed by your original May 21, 1982 letter and our letter of June 4, 1982. The limitations imposed by your July 2, 1982 letter will therefore apply prior to the plant start-up following the addition of spent fuel to the pool.

oc0782-0016b142

D M Crutchfield, Chief
Big Rock Point Plant
S.F.P. Structural Adequacy
July 28, 1982

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Consumers Power Company has reviewed the scope of the NRC May 21, 1982 letter and concurs with its applicability during power operations. Our review specifically considered those postulated accidents such as cask drop and fuel bundle drop which are not dependant upon plant operations. (Note that this review also assumed coincident loss of spent fuel pool cooling system.) The review concluded that during plant shutdown no postulated accident would render the containment uninhabitable for sufficient duration (>8days) for the bulk temperature of the spent fuel pool water to reach 150°F.

David J VandeWalle (Signed)

David J VandeWalle
Nuclear Licensing Administrator

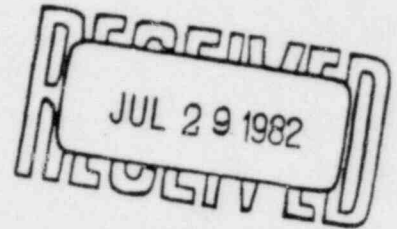
CC Administrator, Region III, USNRC
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July 27, 1982



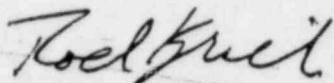
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BIG ROCK POINT PLANT -
INPO EVALUATION REPORTS

As requested, this letter provides you with a description of the procedure followed by Consumers Power Company and INPO for finalizing the annual Big Rock Plant Evaluation Report. While there is no specific INPO policy governing the development of a final Evaluation Report, the enclosed copy of INPO's Evaluation Release Policy does outline the steps that are followed in the report finalization process under the section entitled, "Report Preparation."

Briefly, the process begins when the INPO evaluation team provides the Plant Manager with a copy of their handwritten preliminary findings and recommendations at the conclusion of the plant evaluation, during the exit meeting. After the evaluation team returns to INPO, their findings and recommendations are further refined, if necessary, typed, and sent to Consumers Power Company. We then add our responses to the evaluation recommendations and send this first draft report back to INPO. Our responses as well as the findings and recommendations are reviewed by the appropriate INPO evaluation team members. The INPO review comments are collected by the evaluation team leader and resolved in discussions with the appropriate CCo plant and General Office personnel. INPO then makes any agreed upon changes to the first draft report and sends us this second draft for our review. This review and resolution process is repeated until all differences are resolved. At that point, a final Evaluation Report is issued by INPO. Note, however, that until such time as the Evaluation Report is issued it is considered by both parties as a draft.

I hope that this description and the enclosed material help to clarify your understanding of how the annual INPO Evaluation Reports are developed. If you have any questions, please do not hesitate to call me.



Rod Krich
Senior Engineer - Nuclear Licensing

CC: DJVandewalle, P24-614B
TCBordine, P24-608
DPHoffman, Big Rock Point

RMK-82-70

INSTITUTE OF NUCLEAR POWER OPERATIONS
EVALUATION RELEASE POLICY

The policy of the Institute with regard to the confidentiality of evaluation reports of nuclear plants has been set, with concurrence by the Board of Directors. That policy recognizes the unique relationship between INPO and its members. Similar in many aspects to the lawyer-client or consultant-client relationship, the policy states that prior to the final report being delivered to the utility, no public comment will be made by anyone on the INPO staff relative to the following: (a) the schedule of evaluations; (b) the utility or specific plant involved; (c) whether a specific plant or any plant owned by a utility has been evaluated, is scheduled, etc.; or (d) any information concerning evaluations other than generic descriptions of the Evaluation & Assistance Division's activities.

The only exception to this policy is in the case of the utility announcing, prior to the completion of the final report, the fact that an evaluation has taken place. Even in this event, INPO would not comment on the findings, but could confirm that the evaluation had taken place.

This policy remains in effect until the final evaluation report is received and released by the utility. It is suggested that the utility provide a copy of the report to the NRC Regional Office in advance of any release of the report. In the event a member elects not to release an evaluation report, no comment on the report will be made by INPO. It is noted that INPO has publicly committed to evaluate each plant approximately annually. In accordance with the desires of its Board of Directors, INPO has encouraged its utility members to release their evaluation reports.

INPO's interpretation of the meaning of "release" may be helpful to the members.

An evaluation report is considered to be released if the utility provides a copy to the NRC, authorizes INPO to distribute the report to a list as worked out with INPO's Board of Directors (the list is shown on page 3 of this document), and is willing to provide copies of the report on request as appropriate. Any decision to provide the report to the media or to the public in general is up to the utility. A news conference or a news release concerning the report is at the utility's discretion and may not be desirable.

The INPO Board of Directors has directed that INPO provide a copy of each evaluation report to the Executive Committee, whether or not the utility releases the report.

In addition, INPO reminds its member utilities that they may have a requirement to provide a copy of their evaluation report to Nuclear Electricity Insurance Limited (NEIL) or other appropriate insurance carriers that may require such documents from its member utilities. INPO does not distribute a copy of the evaluation report to such insurance carriers. It is the individual utility's responsibility to meet any such requirement.

In the course of INPO evaluations and other activities, situations may be observed which would require that INPO, in compliance with the Code of Federal Regulations, report such occurrences. In such an event, INPO will work with the utility involved and encourage the utility to report the occurrence. If such is done, no further action by INPO is required. If the utility does not report the occurrence, INPO will do so in compliance with Federal law and will simultaneously inform the affected utility.

Report Preparation

INPO's goal, as presented to its Board of Directors, is to distribute the final evaluation report within three (3) months of the actual field evaluation. Our schedule is as follows:

1. Mail the draft report to the utility approximately two (2) weeks following the exit meeting.
2. Receive the utility's responses to the INPO recommendations, discuss the responses and reach agreement within six (6) weeks after the exit meeting.
3. Mail the final report, following internal INPO review and further interaction with the utility, about ten (10) weeks after the exit meeting.
4. Distribute the report, after release by the utility, within twelve (12) weeks after the exit meeting.

This schedule is ambitious, but one that should be met in order for the report to be useful and meaningful to the utility involved and to other member utilities. Also, INPO's and the utility's credibility are on the line, and it is highly desirable that the report be issued promptly.

Part of meeting this schedule depends upon INPO, and part depends upon the utility. INPO will endeavor to do its part to meet the schedule. We believe it is important that the issuance of an evaluation report not drag out, and we encourage the utility to begin planning corrective action and their response immediately following the exit meeting.

Report Distribution

If the report is to be released, INPO requests authorization from the utility to distribute the report, in accordance with INPO's Board of Directors' desires, to the following:

- INPO member utilities that hold NRC licenses
- INPO Board of Directors
- INPO Advisory Council
- INPO Industry Review Groups
- INPO Participants
- American Nuclear Energy Council
- American Public Power Association
- Atomic Industrial Forum
- Edison Electric Institute
- Electric Power Research Institute
- National Rural Electric Cooperative Association
- Nuclear Safety Analysis Center
- Other organizations or individuals as authorized by INPO and the utility.

If the utility decides to make the report public, it is requested that the utility's public information department head contact INPO's Director of Communications, Angelina S. Howard. The Communications Division is prepared to assist the utility's public information department by providing generic background information on the evaluation process, and any additional information the utility may request.

In response to media inquiry, the spokesperson for INPO will be the President or the Director of Communications. INPO will explain the philosophy of "best operating practices" and that an INPO evaluation visit to a plant will, in most cases, identify areas where a need for improvement is indicated.