



**Consumers  
Power  
Company**

General Offices: 212 West Michigan Avenue, Jackson, Michigan 49201 • Area Code 517 788-0550

July 18, 1980

Mr James G Keppler  
Office of Inspection and Enforcement  
Region III  
US Nuclear Regulatory Commission  
799 Roosevelt Road  
Glen Ellyn, IL 60137

DOCKET 50-155 - LICENSE DPR-6 -  
BIG ROCK POINT PLANT - RESPONSE TO  
HEALTH PHYSICS APPRAISAL

By NRC letter dated June 13, 1980, Consumers Power Company received the results of a Health Physics Appraisal, Inspection Report No 80-04, performed on March 3-14, 1980. Consumers Power Company's response to two (2) violations and eight (8) findings was requested.

At the request of Consumers Power Company a ten (10) day extension for response was granted by L R Greger, Region III to D P Hoffman, CPCo on July 8, 1980. The attached enclosure provides Consumers Power Company's response to the violations and findings.

David P Hoffman (Signed)

David P Hoffman  
Nuclear Licensing Administrator

CC Director, Office of Nuclear Reactor Regulation  
Director, Office of Inspection and Enforcement  
NRC Resident Inspector, Big Rock Point

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CONSUMERS POWER COMPANY

Big Rock Point Plant

Health Physics Appraisal

Docket 50-155

License DPR-6

At the request of the Commission and pursuant to the Atomic Energy Act of 1954 and the Energy Reorganization Act of 1974, as amended, and the Commission's Rules and Regulations thereunder, Consumers Power Company submits our response to a request for response, dated June 13, 1980, entitled "Health Physics Appraisal". Consumers Power Company's response is dated July 18, 1980.

CONSUMERS POWER COMPANY

By R C Youngdahl (Signed)  
R C Youngdahl, Executive Vice President

Sworn and subscribed to before me this 18th day of July 1980.

Dorothy H Bartkus (Signed)  
Dorothy H Bartkus, Notary Public  
Jackson County, Michigan  
My commission expires March 26, 1983.

(SEAL)

CONSUMERS POWER COMPANY BIG ROCK POINT PLANT RESPONSE TO HEALTH PHYSICS APPRAISAL

DATED JUNE 13, 1980

The following is our response to the "Notice of Violation" contained as Appendix B and the "Significant Appraisal Findings" contained as Appendix A in your letter of June 13, 1980, transmitting the results of your health physics appraisal of the Big Rock Point Nuclear Plant.

Appendix B - Notice of Violations

Violation Item #1

Technical Specification 10.6.2.2(d) requires that an individual qualified in radiation protection procedures shall be onsite when fuel is in the reactor. The criteria required to be satisfied by individuals qualified in radiation protection procedures were forwarded in a letter from Ziemann (NRC) to Bixel (CPCo) dated March 15, 1977.

Contrary to the above, off-shift radiation protection coverage is routinely provided by the shift supervisors, who typically are not qualified to conduct special and routine contamination and airborne radioactivity surveys and evaluating the results of such surveys.

Response

Consumers Power Company does not believe this to be a valid infraction. Technical Specification 10.6.2.2(d) was issued well before the letter was forwarded from D L Ziemann to D A Bixel dated March 15, 1977. That letter constituted a change in the Technical Specification interpretation. Consumers Power contends the Technical Specification is satisfied by the qualifications maintained by the shift supervisor (SS). The Big Rock Point Plant Administrative Procedures document the responsibilities of the SS with respect to radiation protection coverage.

The previously accepted practice satisfying this Technical Specification by relying on both the on-shift supervisor who is trained in health physics procedures through the RO/SRO training programs and consequent licensing by the US NRC and the on-shift operators who are trained in health physics procedures through the RO training program and also licensed by the US NRC will be continued. In addition, all on-shift operators, the shift supervisor and the shift technical advisor will continue to be trained at the plant for RWP exempt status.

However, in view of our concern for maintaining a current and high quality radiation protection program at Big Rock Point, Consumers Power Company will proceed with the establishment of a new supervisory training position at the plant. The individual filling this position will be responsible for upgraded radiation protection training of the plant staff. The training program will be fully implemented by January 1, 1981, and will include, for RWP exempt personnel, training in all six criteria for individuals qualified for radiation protection procedures contained in D L Ziemann's letter of March 15, 1977, to Consumers Power Company. Under this program additional detailed training in radiological evaluations, particularly for offsite dose consequences under abnormal conditions, will be provided to the shift technical advisors. Also, a careful screening of the need for RWP-exempt status will be undertaken to minimize its use to individuals truly in need of an RWP-exemption.

During routine operation of the plant, the non-day shift complement consists of only six employees. Because of the small number of people, work force radiation protection control during normal operations or during the initial stages of an emergency by the shift supervisor is a relatively easily managed task. However, when the work in radiologically controlled areas involves non-RWP-exempt personnel such as maintenance personnel during off-shift hours, it will continue to be accomplished with coverage by radiation protection technicians. In addition, when work off-shift, while fuel is in the reactor, requires the use of more than two people in a radiologically controlled area that are not part of the normal shift complement, radiation protection technician coverage will be provided. We believe with these additional steps that the shift supervisor will remain fully qualified in radiation protection procedures to satisfy Technical Specification 10.6.2.2(d) to assure competent radiation protection coverage while fuel is in the reactor.

Violation Item #2

10 CFR 20.203(c)(2) requires that high radiation areas be equipped with control devices, which reduce radiation levels or provide audible warning of the levels, or be maintained locked.

Contrary to the above, high radiation areas existed in the condensate demineralizer room and in the vicinity of the turbine moisture separator at the time of this appraisal but the areas were not locked or equipped with control devices. An additional area, surrounding the spent fuel pool sock filter tank, becomes a high radiation area for short periods due to activity buildup on the filters. Although not a high radiation area during this appraisal, the area is not equipped with a control device or locked when high radiation levels exist.

Response

Consumers Power Company acknowledges the absence of locks for the high radiation areas in the condensate demineralizer room and in the vicinity of the turbine moisture separator.

To correct this infraction, Consumers Power Company is committing to the following:

1. The turbine area is now a locked and alarmed high radiation area.
2. The entrance to the condensate demineralizer is presently chain locked and will be provided with a locked door by January 1, 1981.
3. The fuel pool filter area is presently chain locked.
4. In order to assure that the area immediately above the fuel pool filter does not become a high radiation area, procedural controls will be instituted immediately to change the filter elements before this area becomes a high radiation zone. Such procedural controls may also be acceptable for the fuel pool filter area.
5. If the fuel pool filter area, even with these procedural controls, becomes a high radiation area on a periodic basis, it will be provided with a locked door.

Appendix A - Significant Appraisal Findings

Although these "Significant Appraisal Findings" are not in violation of Federal Regulations, Consumers Power Company will proceed with the following to maintain and improve the radiation protection program at Big Rock Point.

1. Finding

Technician and professional staffing within the Chemistry and Radiation Protection Department is not sufficient to allow adequate training of personnel, to provide reasonable assurance that personnel loss will not adversely affect essential Chemistry and Radiation Protection Department functions, and to allow adequate performance of assigned responsibilities under routine and anticipated nonroutine conditions (Section 3.b).

Response

Consumers Power Company is proceeding with the establishment of an additional professional position most likely within the Chemistry and Radiation Protection Department. This individual will be responsible for improving and maintaining the training, RWP-exempt and ALARA programs.

Consumers Power Company is also actively seeking two Radiation Protection Technicians to fill a new authorized complement of eight (8) people. This will allow the adequate performance of assigned responsibilities under routine and anticipated nonroutine conditions.

The additional professional position is expected to be filled by January 1, 1981, depending on the availability and qualifications of applicants.

2. Finding

Off-shift radiation protection coverage requires upgrading to assure that necessary measurements can be made and actions taken in accident or other anomalous situations to evaluate radiological hazards and effect appropriate radiological precautions. The individuals providing this coverage must not be assigned other duties under the emergency organization which detract from their primary responsibility for radiation protection coverage (Section 3.a).

Response

As noted in Consumers Power Company response to Notice of Violation, Item #1, the licensee is not aware of any situation or event during the 18 year operating experience of this facility that could not be handled by RWP-exempt personnel. Furthermore, the licensee shares the audit team's concern with regard to availability of training time, recent technician turnover, workloads and availability of qualified people available for filling the currently authorized but unfilled technician positions. Off-shift coverage would worsen the situation with respect to these other concerns. Furthermore, it would limit severely the licensee's ability to provide adequate maintenance support (RWP processing, direct coverage and job evaluations, etc), during the normal (daytime) maintenance shift. However, plant management currently is reviewing a number of alternatives

for maintaining responsiveness to increased regulatory requirements in all phases of plant operation.

3. Finding

The ALARA program requires significant improvement, especially in the areas of program formalization and Chemistry and Radiation Protection staff authority (Sections 3.c and 10).

Response

See Consumers Power Company response to Finding #1 of Appendix A above. In addition corporate management agrees with the desirability of additional formalization and company-wide uniformity in certain significant aspects of ALARA policy. Such corporate policy currently is in draft form and is expected to be issued by the end of 1980. This policy will also address the authority of the Radiation Protection Department including the ability to enforce radiation protection procedures and stopping work on jobs believed to be radiologically hazardous.

4. Finding

The training program requires significant improvement, especially in the areas of Chemistry and Radiation Protection Technician training and RWP-exempt training (Sections 4.a and b, and 12.a).

Response

Desirability for improvement is acknowledged. See Consumers Power Company response to Finding #1 above.

5. Finding

The RWP-exempt program, in its present form, has significant weaknesses in training of personnel and in basic format (Sections 4.b and 8.b).

Response

This program is expected to be strengthened by establishment of an additional professional position. See Consumers Power Company response to Finding #1 and Violation #1 above.

6. Finding

Personal contamination monitoring practices require significant improvement in the areas of equipment sensitivities, formal procedures describing equipment calibrations and alarm setpoints, and enforcement of procedures for use of personal contamination equipment (Sections 8.c and 9.c and d).

Response

The improved training program as a result of the additional professional assistance will promote a better understanding of radiation protection procedures and mitigate the need for additional enforcement action.



The plant staff are currently evaluating a new portal monitor with better sensitivity and shorter count time. The evaluation and possible purchase and installation of this monitor should be complete by January 30, 1981. Proper frisker use will also be emphasized in the improved training program to maintain radiation exposure ALARA along with an evaluation of frisker sensitivity and relocation to lower noise and radiation background areas.

Formal procedures will be developed describing equipment calibrations and alarm setpoints where necessary.

7. Finding

Airborne effluent controls require improvements in noble gas quantification methods, laboratory ventilation release determinations, and HEPA filter changeout and testing criteria (Section 11.b).

Response

A high range monitor was added to monitor the noble gas effluents at the stack to satisfy the interim requirements of NUREG-0578. A response versus activity curve was developed for this monitor to quantify noble gas releases. By January 1, 1981, a study and analysis will be completed on stack gas samples to determine that the present stack gas monitor quantifies noble gas release rates appropriate and that the off-gas is the overwhelming contribution to total release. A germanium detector coupled to a multichannel analysis system is being designed to satisfy the long-term requirements of NUREG-0578. This system will be operational according to the NRC-defined schedule.

Monthly surveillance by contamination survey on the laboratory exhaust fan duct will be implemented by September 1, 1980. All HEPA filters will be scheduled for changeout and/or sampling to determine if changeout is necessary on a routine basis. This scheduling is expected to occur by January 1, 1981.

8. Finding

Although not indicative of broad problem areas, significant weaknesses requiring corrective actions were identified in the following areas:

- A. High radiation area access control (Section 8.d)
- B. Supply of stand-off (extending probe), high range survey instruments and survey instrument operability checks before use (Section 9.2)
- C. Procedure coverage and adherence (Section 6)
- D. Temporary storage of low-level radioactive trash (Section 11.c)

Response

Consumers Power Company is currently evaluating these areas for possible improvement. The following provides our objectives in relation to the above items:

- A. High radiation area access control is addressed by the response to Violation Item #2 above.
- B. Evaluation and recommendation for purchase of additional radiation protection instruments will be completed by September 1, 1980.

- C. The training program will emphasize radiation protection procedure adherence in accordance with the responses to Violation Item #1 and applicable findings.
- D. Temporary storage of low-level radioactive trash will be improved by establishment of procedural controls in the form of bag limits or container storage. These controls will be established by September 1, 1980.