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

May 11, 1978

Director, Nuclear Reactor Regulation Att: Mr Dennis L Ziemann, Chief Operating Reactors Branch No 2 US Nuclear Regulatory Commission Washington, DC 20555

DOCKET 50-155 - LICENSE DPR-6 -BIG ROCK POINT PLANT - REQUEST FOR T/S CHANGE: EMERGENCY POWER SUPPLIES

Transmitted herewith are three (3) original and thirty-seven (37) conformed copies of a proposed change to the Technical Specifications for the Big Rock Point Plant, Docket 50-155, License DPR-6.

The purpose of this change is to incorporate surveillance testing for safety-related d-c power supplies, clarify existing emergency power supply Limiting Conditions of Operation and modify existing surveillance requirements for the diesel fire pump batteries. Since the submission is made, in part, in response to an NRC staff request dated December 7, 1977 and the content of the other changes is deemed to be primarily administrative or claritive in nature, it is concluded that the amendment should be exempt from all fees as specified in 10 CFR, Part 170, Section 170.22.

David A Bixel

Nuclear Licensing Administrator

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CC: JGKeppler, USNRC

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# CONSUMERS POWER COMPANY Docket 50-155 Request for Change to the Technical Specifications License DPR-6

For the reasons hereinafter set forth, it is requested that the Technical Specifications contained in Facility Operating License DPR-6, Docket 50-155, issued to Consumers Power Company on May 1, 1964 for the Big Rock Point Plant be changed as described in Section I below:

## I. Change(s)

- A. Revise Section 11.4.5.3.A.1.(e) to read:
  - (e) Verify that the cells, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration for the station battery and the RDS batteries.
- B. Revise Section 11.4.5.3.A.1.(f) to read:
  - (f) Verify that the cell-to-cell and terminal connections are clean, tight, free of corrosion and coated with anticorrosion material for the station battery and the RDS batteries.
- C. Revise Section 11.4.5.3.A.1.(g) to read:
  - (g) Verify that the battery chargers for the station battery and the RDS batteries will supply at least 30 amperes at a minimum of 135 volts for at least 4 hours.
- D. Revise Section 11.4.5.3.A.1.(h) to read:
  - (h) Verify that the capacity of the station battery and the RDS batteries is adequate to supply and maintain in OPERABLE status all of the actual emergency loads for the design time interval when the battery is subjected to a battery service test. The design time interval for the RDS batteries is one hour and for the station battery is eight hours.
- E. Revise Section 11.4.5.3.A.2.(b) to read:
  - (b) Verify that the cell voltage is  $\geq$  2.0 volts and specific gravity is  $\geq$  1.2 of each cell of the station battery; and, verify the cell voltage is  $\geq$  6.0 volts and specific gravity is  $\geq$  1.2 on each cell of the RDS batteries.

### F. Revise Section 11.4.5.3.A.3 to read:

#### 3. Weekly:

- (a) The electrolyte level of each RDS battery pilot cell and the station battery pilot cell is between the minimum and maximum level indication marks.
- (b) The pilot cell specific gravity for RDS and station batteries corrected to (77)°F is ≥ 1.2.
- (c) The station battery pilot cell voltage is ≥ 2.0 volts. The RDS battery pilot cell voltage is ≥ 6.0 volts.
- (d) The overall battery voltage is ≥ 125 volts for the station battery and the RDS batteries.
- (e) Test start the diesel generator and run for warm-up period.
- (f) Verify that the diesel generator battery electrolyte level is above plates and that the overall battery voltage is > 24 volts.

# G. Add Section 11.4.5.3.4 as follows:

- 4. Quarterly Verify the following:
  - (a) That the specific gravity of the diesel generator battery is appropriate for continued service;
  - (b) That the diesel generator battery and battery rack show no visual indication of physical damage or abnormal deterioration; and
  - (c) That the diesel generator battery terminal connections are clean, tight, free of corrosion and coated with anticorrosion material.

### H. Revise Section 11.4.5.3.5 to read:

- 5. Sixty months At least once per 60 months during shutdown, verify that the RDS batteries and the station battery capacity is at least 80% of the manufacturer's rating when subjected to a performance discharge test. This performance discharge test shall be performed subsequent to the satisfactory completion of the required battery service test of Part 11.4.5.3.A.1.(h).
- I. Add Sections 11.3.5.3.A.8 and 9 as follows:
  - 8. During reactor power operation, the 138 kV line may be out of service for repair for periods up to three (3) days.

- 9. If Specification A.8 is not met, a normal orderly shutdown shall be initiated within one (1) hour and the reactor shall be shut down as described in Section 1.2.5(a) within twelve (12) hours and shut down as described in Section 1.2.5(a) and (b) within the following 24 hours.
- J. Add the foll wing sentence after the first paragraph in the <u>Bases</u>.

  The operabi ity of the diesel battery and charger is verified by the weekly strating test of the diesel and by the weekly verification of the electrosyte level and overall battery voltage.
- K. Revise Section 4.7.11.1.2.C.1 to read:
  - The batteries and battery racks show no visual indication of physical damage or abnormal deterioration, and

NOTE: Corrected Technical Specifications pages are attached.

## II. Discussion

By letter dated December 7, 1977, Consumers Power Company was required to submit Technical Specifications changes for the Big Rock Point Plant that incorporated additional d-c power sources used for plant safety systems. These changes were to be consistent with the existing Big Rock Point Plant specifications pertaining to emergency power sources. A thorough evaluation was conducted and the necessary changes were developed. Additionally, other changes to this section are being provided to enhance the overall clarity.

Changes A, B, C, D, E, F [(a) through (d)] and H are primarily editorial in nature. They are provided to improve clarity and to correct a minor error; each RDS battery cell is a 6-volt unit consisting of three sections per cell, thus, minimum cell voltage for each RDS battery should be 6 volts versus the presently specified 2 volts.

Changes F[(f)], G and J are provided to meet the intent of the staff's December 7, 1977 letter. They were developed based upon existing Technical Specifications requirements and supplemented by standards derived from the diesel fire pump battery surveillance. Other conditions considered include the fact that the diesel generator battery is only required during the

starting of the diesel generator and that the diesel generator is started weekly. Thus, the operability of both the charger and battery is checked and least weekly through both diesel operation and battery electrolyte level and voltage checks. Further, the proposed quarterly checks provide an adequate level of assurance that no long-term degradation problems are developing and, as previously indicated, they are consistent with standards developed by the staff for the diesel fire pump batteries. There are no proposed changes to the "Limiting Conditions for Operation" for the diesel generator battery or charger since it is concluded that Section 11.3.5.3.A.2 is applicable for these components.

Change I is provided to clarify the operability status of the 138 kV power supply. Presently, the Big Rock Point Plant Technical Specifications do not specifically allow continued plant operation with the 138 kV line deenergized by virtue of stating that the line shall "normally be available." However, no required action is clearly identified, and there is no specified time frame in which to perform the action. In order to rectify this situation, Change I is proposed. This change would allow continued reactor power operation for up to three days with the 138 kV line inoperable; after which, a plant shutdown would be required. This is consistent with the existing LCOs for the 46 kV power supply and the diesel generator and is deemed appropriate since the level of backup electrical protection will not be reduced over that occurring with a loss of the 46 kV power supply or diesel generator.

Change K is submitted to delete inspection of the diesel generator battery plates. This requirement is impossible to meet since the battery case is opaque (made of hard rubber) and, therefore, not conducive for plate inspections.

## III. Conclusion

Based on the foregoing, both the Big Rock Point Plant Review Committee and the Safety and Audit Review Board have concluded that this change is acceptable.

CONSUMERS POWER COMPANY

By

C R Bilby, Vice President Production & Transmission

Sworn and subscribed to before me this 11th day of May 1978.

Linda R Thayer, Notary Public Jackson County, Michigan

My commission expires July 9, 1979.