

October 15, 1986

DMB 016

Docket No. 50-255

Mr. Kenneth W. Berry  
Director, Nuclear Licensing  
Consumers Power Company  
1945 West Parnall Road  
Jackson, Michigan 49201

Dear Mr. Berry:

The Commission has issued the enclosed Amendment No. 98 to Provisional Operating License No. DPR-20 for the Palisades Plant. This amendment consists of changes to the License and the Technical Specifications in response to your application dated June 20, 1986.

This amendment increases the allowable quantity of Cs-137 contained in sealed calibration sources used in support of operation of the facility and adds a Technical Specification requiring leakage testing of all sealed sources. The amendment also corrects a typographical error.

A copy of our related Safety Evaluation is also enclosed. The notice of issuance will be included in the Commission's next bi-weekly Federal Register notice.

Sincerely,

Original signed by

Thomas V. Wambach, Project Manager  
PWR Project Directorate #8  
Division of PWR Licensing-B

Enclosures:

1. Amendment No. 98 to License No. DPR-20
2. Safety Evaluation

cc w/enclosures:

See next page

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Mr. Kenneth W. Berry  
Consumers Power Company

Palisades Plant

cc:

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Covert, Michigan 49043



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

CONSUMERS POWER COMPANY

PALISADES PLANT

DOCKET NO. 50-255

AMENDMENT TO PROVISIONAL OPERATING LICENSE

Amendment No. 98  
License No. DPR-20

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Consumers Power Company (the licensee) dated June 20, 1986, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public; and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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2. Accordingly, Provisional Operating License No. DPR-20 is amended by changing the Technical Specifications as indicated in the attachment to this license amendment and by revising Paragraphs 2.C. and 3.B. to read as follows:

[2]C. Pursuant to the Act and 10 CFR Part 30, "Rules of General Applicability of Licensing of Byproduct Material", to receive, possess and use in connection with operation of the facility 1500 curies of Polonium-210 as two sealed sources not to exceed 750 curies each, 1000 curies of Cesium-137 as multiple sealed calibration sources and up to 500 millicuries per nuclide of any byproduct material with Atomic Numbers 3 to 83, inclusive, without restriction to chemical and physical form to a total of 10 curies; and

[3]B. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 98, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Ashok C. Thadani, Director  
PWR Project Directorate #8  
Division of PWR Licensing-B

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: October 15, 1986

ATTACHMENT TO LICENSE AMENDMENT NO. 98  
PROVISIONAL OPERATING LICENSE NO. DPR-20  
DOCKET NO. 50-255

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by amendment number and contain marginal lines indicating the area of change.

REMOVE

3-81b

INSERT

3-81b

6-37

Table 3.17.4 (Cont'd)

- (g) Calculate the Quadrant Power Tilt using the excore readings at least once per 12 hours when the excore detectors deviation alarms are inoperable.
- (h) With two flow rate indicators inoperable for a given control valve, the control valve shall be considered inoperable and the requirements of 3.5.2(e) apply.

## ADMINISTRATIVE CONTROLS

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### 6.21 SEALED SOURCE CONTAMINATION

- 6.21.1 Each sealed source containing radioactive material either in excess of 100 microcuries of beta and/or gamma emitting material or 5 microcuries of alpha emitting material shall be free of greater than or equal to 0.005 microcuries of removable contamination.
- 6.21.2 With a sealed source having removable contamination in excess of 0.005 microcuries, immediately withdraw the sealed source from use and either:
  - 1. Decontaminate and repair the sealed source, or
  - 2. Dispose of the sealed source in accordance with applicable regulations.
- 6.21.3 Each category of sealed sources as described in 6.21.1 with a half-life greater than 30 days (excluding Hydrogen-3), and in any other form than gas, shall be tested for leakage and/or contamination at intervals not to exceed 6 months.
- 6.21.4 The test shall be performed by the licensee or by other persons specifically authorized by the Commission or an Agreement State. The test method shall have a detection sensitivity of at least 0.005 microcuries per test sample.
- 6.21.5 The test sample shall be taken from the sealed source or, in the case of permanently mounted sources, from the surfaces of the mounting device on which contamination would be expected to accumulate.
- 6.21.6 The periodic leak test does not apply to sealed sources that are stored and not being used. These sources shall be tested prior to use or transfer to another licensee, unless tested within the previous 6 months. Sealed sources which are continuously enclosed within a shielded mechanism (i.e., sealed sources within radiation monitoring or boron measuring devices) are considered to be stored and need not be tested unless they are removed from the shielded mechanism.
- 6.21.7 Sealed sources transferred without a certificate indicating the last test date shall be tested prior to being placed in use.
- 6.21.8 A report shall be prepared and submitted to the Commission on an annual basis if sealed source leakage tests reveal the presence of greater than or equal to 0.005 microcuries of removable contamination.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 98 TO PROVISIONAL OPERATING LICENSE NO. DPR-20

CONSUMERS POWER COMPANY

PALISADES PLANT

DOCKET NO. 50-255

INTRODUCTION

By letter dated June 20, 1986, Consumers Power Company (CPCo) requested changes to Provisional Operating License No. DPR-20 and the Technical Specifications for the Palisades Plant which would replace specific descriptions of special nuclear, byproduct, and source materials. CPCo requested a change to the existing license condition to allow possession of Cs-137 quantities up to 1000 Ci as follows:

"Pursuant to the Act and 10 CFR Part 30, "Rules of General Applicability of Licensing of Byproduct Material", to receive, possess and use in connection with operation of the facility 1500 curies of Polonium-210 as two sealed sources not to exceed 750 curies each, 1000 curies of Cesium-137 as multiple sealed calibration sources and up to 500 millicuries per nuclide of any byproduct material with Atomic Numbers 3 to 83, inclusive, without restriction to chemical and physical form to a total of 10 curies."

DISCUSSION

The increase to 1000 curies of Cesium-137 as multiple sealed calibration sources is needed by the licensee to permit calibration of high range radiation monitors, added as part of post-TMI upgrades, and other radiation detection instruments. The calibrated source will allow the verification of the accuracy of these instruments. Consolidation of the individual Cesium-137 sources into a single possession limit is intended to eliminate the need for further license amendments in the future.

The licensee has also provided a Technical Specification that describes the leak test requirements for sealed sources.

EVALUATION

The licensee's radiation safety program is intended to provide for the safe storage and handling of sealed radioactive sources and assures protection against undue exposure while handling them. The program also limits use of these sources to experienced and qualified personnel. We have evaluated the licensee's personnel qualifications, facilities, equipment, and procedures for handling byproduct, source and special nuclear material. On the basis of that review, we conclude that the licensee's provisions as described are consistent with Regulatory Guide 1.70.3 and, therefore, meet the requirements of 10 CFR Parts 30, 40 and 70.

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On the basis of the licensee's radiation safety program, previous reviews, and information provided by NRC Region III staff, the staff concurs that Palisades has an adequate Health Physics organization and radiation protection program, and that personnel are adequately trained to handle the new sealed sources. The staff, therefore, concludes that the incorporation of flexible yet controlled licensing provisions for the receipt, possession, and use of byproduct, source and special nuclear material into the operating license for Palisades is acceptable. The proposed amendment to the license does not authorize an increase in the amount of special nuclear material as reactor fuel.

Based on the above, we conclude that the licensee's proposed amendment to allow possession of increased quantities of Cs-137 source material up to 1000 curies meets the criteria of Regulatory Guide 1.70.3 for assuring safe handling of radiation sources, and therefore, satisfies the requirements of 10 CFR Parts 30, 40 and 70 concerning the licensing of byproduct, source and special nuclear materials.

#### ENVIRONMENTAL CONSIDERATION

This amendment involves a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

#### CONCLUSION

We also conclude, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: October 15, 1986

Principal Contributors:

J. Minns  
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