Docket No. 50-255

APRIL 7 1978

Consumers Power Company
ATTN: Mr. David Bixel
Nuclear Licensing Administrator
212 West Michigan Avenue
Jackson, Michigan 49201

Gentlemen:

The Commission has issued the enclosed Amendment No. 38 to Provisional Operating License No. DPR-20 for the Palisades Plant. This amendment consists of changes to the Technical Specifications in response to your request dated March 9, 1978, as supplemented by letter dated March 29, 1978.

This amendment allows use of a modified control rod position indication system calibration method prior to the forthcoming fuel cycle.

As stated in your letter of March 29, 1978, we have determined that any postponement of the integrated leak rate test (ILRT) beyond September 1978 would require an exemption from 10 CFR Part 50 Appendix J. In addition, we have determined that you have presented insufficient technical justification for postponement of the integrated leak rate test for fourteen months until the next refueling outage as requested in your March 9, 1978 letter. Since you have elected to perform the ILRT during the current outage, no action has been taken on the request.

Your request of March 9 allows primary coolant system flow to be determined by a measurement different from that normally used has not been authorized based on your stated intention to utilize the normal method to verify flow.

Your request to postpone certain engineered safety system testing until the next refueling outage has not been approved. We have determined that you have presented insufficient technical justification for postponement of these tests.

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| OFFICE ➤ | | | | | | |
| SURNAME ➤ | | | | | | |
| DATE ➤ | | | | | | |

Copies of the Safety Evaluation and Notice of Issuance are also enclosed.

Sincerely,

Original signed by V. Stello

Victor Stello, Jr., Acting Assistant
Director for Operating Reactors
Division of Operating Reactors

Enclosures:
1. Amendment No. 38 to DPR-20
2. Safety Evaluation
3. Notice of Issuance

cc w/enclosures:
See next page

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| DATE➤ | 3/23/78 | 3/22/78 | 3/24/78 | 3/3/78 | 3/23/78 | 3/23/78 |

cc w/enclosures:

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(w/cy. of 3/9/78 application)

Chief, Energy Systems
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U.S. Environmental Protection
Agency
Federal Activities Branch
Region V Office
ATTN: EIS COORDINATOR
230 South Dearborn Street
Chicago, Illinois 60604

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

CONSUMERS POWER COMPANY

DOCKET NO. 50-255

PALISADES PLANT

AMENDMENT TO PROVISIONAL OPERATING LICENSE

Amendment No. 38
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 March 9, 1978, as supplemented by filing dated March 29, 1978, 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.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and paragraph 3.B of Facility License No. DPR-20 is hereby amended to read as follows:

   B. Technical Specifications

   The Technical Specifications contained in Appendix A, as revised through Amendment No. 38, 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

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: April 7, 1978

ATTACHMENT TO LICENSE AMENDMENT NO. 38

PROVISIONAL OPERATING LICENSE NO. DPR-20

DOCKET NO. 50-255

Replace the following pages of the Technical Specifications contained in Appendix A of the above indicated license with the attached pages bearing the same numbers (except as otherwise indicated). Changed areas on the revised pages are reflected by a marginal line.

| Remove | Insert |
|---|---|
| 4-10 | 4-10 |
| 4-11 | 4-11 |

TABLE 4.1.3

Minimum Frequencies for Checks, Calibrations and Testing of Miscellaneous Instrumentation and Controls

| Channel Description | Surveillance Function | Frequency | Surveillance Method |
|---|---|---|---|
| 1. Start-Up Range Neutron Monitors | a. Check | S | a. Comparison of both channel count rate indications when in service. |
| | b. Test | P | b. Internal test signals. |
| 2. Primary Rod Position Indication System | a. Check | S | a. Comparison of output data with secondary RPIS. |
| | b. Check | M | b. Check of power dependent insertion limits monitoring system. |
| | c. Calibrate(1) | R | c. Physically measured rod drive position used to verify system accuracy. Check rod position interlocks. |
| 3. Secondary Rod Postion Indication System | a. Check | S | a. Compraison of output data with primary RPIS. |
| | b. Check | M | b. Same as 2(b) above. |
| | c. Calibrate(1) | R | c. Same as 2(c) above, including out-of-sequence alarm function. |
| 4. Area and Process Monitors | a. Check | D | a. Normal readings observed and internal test signals used to verify instrument operation. |
| | b. Calibrate | R | b. Exposure to known external radiation source. |
| | c. Test | M | c. Detector exposed to remote operated radiation check source. |
| 5. Emergency Plan Radiation Instruments | a. Calibrate | A | a. Exposure to known radiation source. |
| | b. Test | M | b. Battery check. |
| 6. Environmental Monitors | a. Check | M | a. Operational check. |
| | b. Calibrate | A | b. Verify airflow indicator. |
| 7. Pressurizer Level Instruments | a. Check | S | a. Comparison of six independent level readings. |
| | b. Calibrate | R | b. Known differential pressure applied to sensor. |
| | c. Test | M | c. Signal to meter relay adjusted with test device. |

TABLE 4.1.3

Minimum Frequencies for Checks, Calibrations and Testing of Miscellaneous Instrumentation and Controls (Contd)

| Channel Description | Surveillance Function | Frequency | Surveillance Method |
|---|---|---|---|
| 8. Control Rod Drive System Interlocks | a. Test | R | a. Verify proper operation of all rod drive control system interlocks, using simulated signals where necessary. |
| | b. Test | P | b. Same as 8(a) above, if not done within three months. |
| 9. Flux-ΔT Power Comparator | a. Calibrate | R | a. Use simulated signals. |
| | b. Test | M | b. Internal test signal. |
| 10. Calorimetric Instrumentation | a. Calibrate | R | a. Known differential pressure applied to feed-water flow sensors. |
| 11. Containment Building Humidity Detectors | a. Test | R | a. Expose sensor to high humidity atmosphere. |
| 12. Interlocks - Isolation Valves on Shutdown Cooling Line | a. Calibrate | R | a. Known pressure applied to sensor. |
| 13. Service Water Break Detector in Containment | a. Test | R | a. Known differential pressure applied to sensors. |
| 14. Control Room Ventilation | a. Test | R | a. Check damper operation for DBA mode with HS-1801 and isolation signal. |
| | b. Test | R | b. Check control room for positive pressure. |

(1) During the 1978 refueling outage, Item 2.c will only be performed on 7 rods (1 per bank). The secondary rod position surveillance (Item 3.c) will be performed in entirety. Additionally, a 20" rod position check (comparing primary indication to secondary indication) will be conducted on each rod. If the primary and secondary indications vary more than 2" from each other, corrective action will be taken to restore the proper tolerances.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 38 TO PROVISIONAL OPERATING LICENSE NO. DPR-20

CONSUMERS POWER COMPANY

PALISADES PLANT

DOCKET NO. 50-255

## Introduction

By letter dated March 9, 1978, and supplement dated March 29, 1978, Consumers Power Company (the licensee) requested a change to the Technical Specifications appended to Provisional Operating License No. DPR-20 for operation of the Palisades Plant in Van Buren County, Michigan. The requested change would allow certain surveillance tests including: (a) the containment integrated leakage rate test (CILRT); (b) certain engineered safety system tests; and (c) the Primary Coolant System flow measurement test to be deferred from the present outage until the next scheduled shutdown for refueling (June 1979). The licensee initiated this request to permit an early startup of the plant to alleviate the need for area wide emergency electrical procedures brought about by a coal shortage. The requested change would also allow use of a modified control rod position indication system calibration method which would shorten the outage time. After a number of discussions, the licensee informed us by letter of March 29, 1978, that they have performed the integrated leak rate test and have chosen to utilize their normal method of verifying primary coolant flow this outage. Therefore, this evaluation will only address the use of a modified control rod position indication system calibration method and postponement of certain engineered safety system tests.

## Discussion

### 1. Control Rod Position Monitor Tests

In its March 9 letter, the licensee requested that the requirements of Technical Specifications 4.1.3.2.C and 4.1.3.3.C regarding the Control Rod Drive Mechanism (CRDM) be postponed until the next refueling outage. The licensee has estimated that this action would result in a savings of about 24 hours of outage time.

These tests are designed to check the calibration of the primary and secondary control rod position monitors which are provided respectively by a synchro-indicator geared to the CRDM rack and reed switches. The calibration check is performed by comparing the primary and secondary instrument readings with position measurements made with a special calibrated ruler. The check is made at two locations, corresponding to the zero and 20 inch positions, for each of the 45 CRDMS.

As an alternate testing method, the licensee has proposed to modify the CRDM drop time test to include a comparison of the primary and secondary indicator readouts at the known zero position and at a second location (20 inches).

The licensee has advised the staff that the several calibration checks which have been performed to date have not indicated an significant disagreement between the special calibrated ruler and the primary and secondary rod position indicator measurements. The licensee also stated that evidence will be generated in the future to justify permanent removal from the Technical Specifications of the measurements made with the special ruler.

We have reviewed the licensee's submittal and we conclude that it should not be necessary to check the calibration of all 45 of the CRDMs. However, to preclude the occurrence of any systematic (common mode) errors, the licensee has agreed to use the special calibrated ruler to perform a calibration check for one rod in each of the seven control rod banks. In addition, the two point check between the primary and secondary measurement methods will be performed as proposed by the licensee (alternate test method) on the remaining CRDMs. If the results of these measurement comparisons indicate a disagreement of more than 2 inches for any of these latter measurements, the special calibrated ruler shall be used to resolve the disagreement. The Technical Specifications would be modified to include these requirements. We conclude that the modified Technical Specifications provide a level of assurance of operability for the next fuel cycle which is not significantly different from that formerly required.

2. Engineered Safety Systems Tests

The Technical Specifications require integrated tests of certain engineered safety systems at least once per 18 months. CPC has requested that certain of these tests be postponed approximately 14 months until the next refueling outage. These tests are (1) complete automatic test of the safety injection system actuation relays and including all normal automatic operations, (2) a manual push-button test of SIS initiation, (3) a verification of diesel start, load shed, synchronizing and loading done during the complete automatic test of the safety injection system actuation relays, (4) functional testing of sevice water system valve actuation, (5) a system test of the safety injection system performed by applying a test safety injection signal to initiate operation, (6) checking the operability of emergency mode automatic valve and for operation in the containment air cooling system, and (7) a test of the overall automatic operation of the emergency power system. These tests were last performed during the refueling outage in the spring of 1976.

The interval between the last tests and the tests scheduled for this month is about 22 months, an interval which is greater than the 18 months specified in the Technical Specifications but within the 25% interval extension allowed by the Technical Specifications. The next refueling outage is scheduled for about June 1979. Therefore, the requested postponement would allow an interval of about 37 months between tests or over twice the interval normally judged to be appropriate. Nevertheless, because of the current effort to extend fossil fuel supplies, we have evaluated CPC's request to determine if there is sufficient technical justification for extending the surveillance interval for Palisades as requested.

As stated by CPC, many of the components associated with the above systems are tested separately by other tests required by Technical Specifications. This includes checking and calibration of sensors which initiate safety injection, cycling of the sensor trip relays, a 2/4 logic test which verifies the pressurizer high-pressure sensors energized the SIS, and testing of engineered safety system pumps and valves. Proper operation of the diesel generator loading sequences is verified monthly using a built-in test circuit which cycles the DBA sequencer with pump and valve operation blocked. Diesel load carrying ability is verified monthly. Also, as stated by CPC, proper starting of the diesel generators due to loss of offsite power was demonstrated

by three recent instances where offsite power was lost. The only thing not tested by the required partial tests and the inadvertent demonstrations of the proper starting of the diesel generators was the proper operation of the design basis accident sequences. CPC has stated that as an alternate to the required test, they would verify proper timing and sequencing of the design basis accident sequences. We agree that the sum of all these tests, planned and inadvertent does indeed test most of the system and provide a high degree of assurance of system operability. However, because of the importance of these systems, and because of maintenance normally performed in refueling outages, we consider it prudent to perform integrated system functional tests prior to returning to operation from a refueling outage and to have these tests performed at nominal 18 month intervals. The integrated tests, plus partial tests required of CPC, are also required of other licensees. We are not currently aware of any information which would indicate an unusually high degree of assurance of operability as compared with the other plants and therefore we have no basis for extending the interval between tests to twice that normally considered to be prudent.

Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and pursuant to 10 CFR §51.5(d)(4) that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: April 7, 1978

7590-01

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-255

CONSUMERS POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENT TO PROVISIONAL OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 38 to Facility Operating License No. DPR- 20 issued to Consumers Power Company (the licensee), which revised Technical Specifications for operation of the Palisades Plant (the facility) located in Covert Township, Van Buren County, Michigan. The amendment is effective as of its date of issuance.

The amendment allows use of a modified control rod position indication system calibration method prior to the forthcoming fuel cycle.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment dated March 9, 1978, and supplement dated March 29, 1978, (2) Amendment No. 38 to License No. DPR-20, and (3) the Commission's related Safety Evaluation. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N. W., Washington, D. C. and at the Kalamazoo Public Library, 315 South Rose Street, Kalamazoo, Michigan 49006. A single copy of items (2) and (3) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 7th day of April 1978.

FOR THE NUCLEAR REGULATORY COMMISSION

Dennis L. Ziemann, Chief
Operating Reactors Branch #2
Division of Operating Reactors