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October 8, 1981

Docket No. 50-255
LS05-81-10-009

Mr. David P. Hoffman
Nuclear Licensing Administrator
Consumers Power Company
1945 W. Parnall Road
Jackson, Michigan 49201

Dear Mr. Hoffman:

SUBJECT: TMI LESSONS LEARNED CATEGORY "A" ITEMS - PALISADES PLANT

The Commission has issued the enclosed Amendment No. 67 to Provisional Operating License No. DPR-20 for the Palisades Plant. This amendment consists of changes to the Technical Specifications in response to your application dated December 18, 1980, as supplemented by letter dated May 7, 1981.

The changes to the Appendix A Technical Specifications incorporate certain of the Lessons Learned Category "A" requirements related to the Three Mile Island Accident in response to our request dated July 2, 1980.

Certain modifications to your proposed changes were necessary to meet our criteria. These modifications have been discussed with and agreed to by your staff.

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

Sincerely,

ORIGINAL SIGNED BY
THOMAS V. WAMBACH FOR
Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing

Enclosures:
1. Amendment No. 67 to License No. DPR-20
2. Safety Evaluation
3. Notice of Issuance

cc w/enclosures:
See next page

OFFICE	DL: ORB #5	DL: ORB #5	OELD	DL: ORB #5	DL: AD/SA		
SURNAME	HSmith:cc	TWambach		DCrutchfield	GLainas		
DATE	10/2/81	10/8/81		10/8/81	10/8/81		

cc w/enclosures:
M. I. Miller, Esquire
Isham, Lincoln & Beale
Suite 4200
One First National Plaza
Chicago, Illinois 60670

Mr. Paul A. Perry, Secretary
Consumers Power Company
212 West Michigan Avenue
Jackson, Michigan 49201

Judd L. Bacon, Esquire
Consumers Power Company
212 West Michigan Avenue
Jackson, Michigan 49201

Myron M. Cherry, Esquire
Suite 4501
One IBM Plaza
Chicago, Illinois 60611

Ms. Mary P. Sinclair
Great Lakes Energy Alliance
5711 Summerset Drive
Midland, Michigan 48640

Kalamazoo Public Library
315 South Rose Street
Kalamazoo, Michigan 49006

Township Supervisor
Covert Township
Route 1, Box 10
Van Buren County, Michigan 49043

Office of the Governor (2)
Room 1 - Capitol Building
Lansing, Michigan 48913

William J. Scanlon, Esquire
2034 Pauline Boulevard
Ann Arbor, Michigan 48103

Palisades Plant
ATTN: Mr. Robert Montross
Plant Manager
Covert, Michigan 49043

U. S. Environmental Protection Agency
Federal Activities Branch
Region V Office
ATTN: Regional Radiation Representative
230 South Dearborn Street
Chicago, Illinois 60604

Charles Bechhoefer, Esq., Chairman
Atomic Safety and Licensing Board Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dr. George C. Anderson
Department of Oceanography
University of Washington
Seattle, Washington 98195

Dr. M. Stanley Livingston
1005 Calle Largo
Santa Fe, New Mexico 87501

Resident Inspector
c/o U. S. NRC
Palisades Plant
Route 2, P. O. Box 155
Covert, Michigan 49043

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. 67
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 December 18, 1980, as supplemented May 7, 1981, 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 Provisional Operating License No. DPR-20 is hereby amended to read as follows:

   B. Technical Specifications

   The Technical Specifications contained in Appendices A and B (Environmental Protection Plan), as revised through Amendment No. 67, 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

for Thomas V. Wambach

Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: October 8, 1981

ATTACHMENT TO LICENSE AMENDMENT NO. 67

PROVISIONAL OPERATING LICENSE NO. DPR-20

DOCKET NO. 50-255

Revised Appendix A Technical Specifications by removing the following pages and by inserting the enclosed pages. The revised pages contain the captioned amendment number and marginal lines indicating the area of change.

REMOVE	INSERT
iii	iii
--	3-1b
--	3-81a
--	4-11a
6-1a	6-1a
6-4	6-4
6-33	6-33

TABLE OF CONTENTS (Contd)

Section	Description	Page
4.0	SURVEILLANCE REQUIREMENTS (Contd)	
4.12	Augmented Inservice Inspection Program for High Energy Lines Outside of Containment	4-60
4.13	Reactor Internals Vibration Monitoring	4-65
4.14	Augmented Inservice Inspection Program for Steam Generators	4-68
4.15	Primary System Flow Measurement	4-70
4.16	Inservice Inspection Program for Shock Suppressors (Snubbers)	4-71
4.17	Fire Protection System	4-75
5.0	DESIGN FEATURES	5-1
5.1	Site	5-1
5.2	Containment Design Features	5-1
5.3	Nuclear Steam Supply System (NSSS)	5-2
5.4	Fuel Storage	5-3
6.0	ADMINISTRATIVE CONTROLS	6-1
6.1	Responsibility	6-1
6.2	Organization	6-1
6.3	Plant Staff Qualifications	6-1
6.4	Training	6-1
6.5	Review and Audit	6-5
6.6	(Deleted)	6-9
6.7	Safety Limit Violation	6-9
6.8	Procedures	6-10
6.9	Reporting Requirements	6-11
6.10	Record Retention	6-26
6.11	Radiation Protection Program	6-27
6.12	High Radiation Area	6-28
6.13	Fire Protection Inspection	6-33
6.14	Environmental Qualification	6-33
6.15	Systems Integrity	6-33
6.16	Iodine Monitoring	6-33
S	SPECIAL TECHNICAL SPECIFICATIONS PURSUANT TO AGREEMENT	S-1
S-1	(Deleted)	S-2
S-2	Liquid Radwaste System Modification	S-5
S-3 through S-5	(Deleted)	

3.1 PRIMARY COOLANT SYSTEM (Cont'd)

3.1.1 Operable Components (Cont'd)

i. The PCS shall not be heated or maintained above 325°F unless a minimum of 375 kW of pressurizer heater capacity is available from both buses 1D and 1E. Should heater capacity from either bus 1D or 1E fall below 375 kW, either restore the inoperable heaters to provide at least 375 kW of heater capacity from both buses 1D and 1E within 72 hours or be in hot shutdown within the next 12 hours.

Table 3.17.4 (Cont'd)

No.	Functional Unit	Minimum Operable Channels	Minimum Degree of Redundancy	Permissible Bypass Conditions
8.	Pressurizer Water Level (LI-0102)	2	1	Not Required in Cold or Refueling Shutdown
9.	Pressurizer Code Safety Relief Valves Position Indication (Acoustic Monitor or Temperature Indication)	1 per valve	None	Not Required below 325°F
10.	Power Operated Relief Valves (Acoustic Monitor or Temperature Indication)	1 per valve	None	Not required when PORV isolation valve is closed and its indication system is operable
11.	PORV Isolation Valves Position Indication	1 per valve	None	Not required when reactor is depressurized and vented through a vent $\geq$ 1.3 sq. in.
12.	Subcooling Margin Monitor	1	None	Not Required Below 515°F
13.	Auxiliary Feed Flow Rate Indication	1 per Steam Generator	None	Not Required Below 325°F
14.	Auxiliary Feed Pump Auto Initiation Circuitry	1 per (e) Pump	None	Not Required Below 325°F

(e) With one auxiliary feed pump automatic initiation circuit inoperable, in lieu of the requirement of 3.17.2, provide a second licensed operator in the control room within 2 hours. With both inoperable, in lieu of following the requirements of 3.17.2, start and maintain in operation the turbine driven auxiliary feed pump.

Table 4.1.3 (Cont'd)

Channel Description	Surveillance Function	Frequency	Surveillance Method
15. Auxiliary Feed Pump Flow Indication	a. Check b. Calibrate	M (5) R	a. Comparison of Channels b. Known Differential Pressure Applied to Sensors
16. Auxiliary Feed Pump Auto Initiation	a. Test b. Calibrate	M (3) (5) R	a. Internal Test Signal b. Known Differential Pressure Applied to Sensors
17. Power Operated Relief Valves and Pressurizer Code Safety Relief Valves Position Indication			
a. Temperature	a. Calibrate b. Check	R S	a. Known Resistance Substitute for RTD b. Comparison of Channels
b. Acoustic Monitor	a. Calibrate	R	a. Inject Calbrated Test Signal
18. Subcooling Margin Monitor	a. Check b. Calibrate	S R	a. Comparison of Channels b. Known Resistance Substituted for RTD Coincident With Known Pressure Input (4)

(3) Test method to be alternated to include starting auxiliary feedwater pump from the control room hand switch, from the breaker and from the automatic start in a three-month period.

(4) In conjunction with Item 4(b), Table 4.1.1.

(5) It is not necessary to perform the specified testing during the cold shutdown condition.

6.3.3 The Shift Technical Advisor (STA) shall have a bechelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design, and response and analysis of the plant for transients and accidents.

6.4 TRAINING

6.4.1 A retraining and replacement training program for the plant staff shall be maintained under the direction of the Nuclear Training Administrator and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI N18.1-1971 and Appendix "A" of 10 CFR, Part 55.

6.4.2 A training program for the fire brigade shall be maintained under the direction of the Plant Training Coordinator and shall, as practical, meet or exceed the requirements of Section 27 of the NFPA Code.

TABLE 6.2-1

Minimum Shift Crew Composition

Minimum shift crew shall be as follows except when the plant conditions specified in Paragraph (a) and (b) below have been established:

Shift Supervisor - SOL

Control Operators (2) - OL

Auxiliary Operators (2)

Shift Technical Advisor (1)

(a) Cold Shutdown Condition or Refueling Shutdown Condition

Shift Supervisor - SOL

Control Operator - OL

Auxiliary Operators (2)

(b) Refueling Operators*

Shift Supervisor - SOL

Control Operator - OL

Auxiliary Operators (2)

*Does not include additional personnel required when core alterations are being conducted. See Paragraph 6.2.2.e.

SOL - Senior Reactor Operator
OL - Reactor Operator

Amendment No. 16, 67

6.13 FIRE PROTECTION INSPECTION

6.13.1 An independent fire protection and loss prevention inspection shall be performed annually utilizing either qualified off-site licensee personnel or an outside protection firm.

6.13.2 An inspection by an outside qualified fire consultant shall be performed at intervals no greater than 3 years.

6.14 ENVIRONMENTAL QUALIFICATION

1. By no later than June 30, 1982 all safety-related electrical equipment in the facility shall be qualified in accordance with the provisions of: Division of Operating Reactors "Guidelines for Evaluating Environmental Qualification of Class IE Electrical Equipment in Operating Reactors" (DOR Guidelines); or, NUREG-0588 " Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment", December 1979. Copies of these documents are attached to Order for Modification of License DPR-20 dated October 24, 1980.

2. By no later than December 1, 1980, complete and auditable records must be available and maintained at a central location which describe the environmental qualification method used for all safety-related electrical equipment in sufficient detail to document the degree of compliance with the DOR Guidelines or NUREG-0588. Thereafter, such records should be updated and maintained current as equipment is replaced, further tested, or otherwise further qualified.

6.15 SYSTEMS INTEGRITY

The licensee shall implement a program to reduce leakage from systems outside containment that would or could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. This program shall include the following:

1. Provisions establishing preventive maintenance and periodic visual inspection requirements, and
2. Integrated leak test requirements for each system at a frequency not to exceed refueling cycle intervals.

6.16 IODINE MONITORING

The licensee shall implement a program which will ensure the capability to accurately determine the airborne iodine concentration in vital areas under accident conditions. This program shall include the following:

1. Training of personnel,
2. Procedures for monitoring, and
3. Provisions for maintenance of sampling and analysis equipment.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 67 TO PROVISIONAL OPERATING LICENSE NO. 20

CONSUMERS POWER COMPANY

PALISADES NUCLEAR PLANT

DOCKET NO. 50-255

1.0 INTRODUCTION

By letters dated December 18, 1980 and May 7, 1981, Consumers Power Company (the licensee) proposed changes to the Technical Specifications (TSs) appended to Provisional Operating License No. DPR-20 for the Palisades Nuclear Plant. The changes involve the incorporation of certain of the TMI-2 Lessons Learned Category "A" requirements. The licensee's request is in direct response to the NRC staff's letter dated July 2, 1980.

2.0 BACKGROUND INFORMATION

By our letter dated September 13, 1979, we issued to all operating nuclear power plants requirements established as a result of our review of the TMI-2 accident. Certain of these requirements, designated Lessons Learned Category "A" requirements, were to have been completed by the licensee prior to any operation subsequent to January 1, 1980. Our evaluation of the licensee's compliance with these Category "A" items was attached to our letter to Mr. David P. Hoffman, Consumers Power Company dated April 6, 1980.

In order to provide reasonable assurance that operating reactor facilities are maintained within the limits determined acceptable following the implementation of the TMI-2 Lessons Learned Category "A": items, we requested that licensees amend their TS to incorporate additional Limiting Conditions of Operation and Surveillance Requirements, as appropriate. This request was transmitted to all licensees on July 2, 1980. Included therein were model specifications that we had determined to be acceptable. The licensee's application is in direct response to our request. Each of the issues identified by the NRC staff and the licensee's response is discussed in the Evaluation below.

3.0 EVALUATION

2.1.1 Emergency Power Supply Requirements

The pressurizer water level indicators, pressurizer relief and block valves, and pressurizer heaters are important in a post-accident situation. Adequate emergency power supplies add assurance of post-accident functioning of these components. The licensee has the requisite emergency power supplies. The TSs provide appropriate actions in the event of component inoperability and are thus acceptable.

2.1.3.a Direct Indication of Flow from Relief and Safety Valves

THe licensee has provided direction indication of flow downstream of the Power Operated Relief Valves (PORV) and safety valves in the control room. These indications are a diagnostic aid for the plant operator and provide no automatic action. The licensee has provided TSs with a channel check every eight hour shift and channel calibration every refueling outage; thus, the TSs are acceptable and they meet our July 2, 1980 model TS criteria. The licensee also has provided a direct indication of the PORV Block valves position in the control room. This meets our requirements and is acceptable.

2.1.3.b Instrumentation for Inadequate Core Cooling

The licensee has installed an instrument system to detect the effects of low reactor coolant level and inadequate core cooling. These instruments, subcooling meters, receive and process data from existing plant instrumentation. We previously reviewed this system in our Safety Evaluation dated April 6, 1980. The licensee submitted TSs with a channel check every eight hour shift and channel calibration every refueling outage and actions to be taken in the event of component inoperability. We conclude the TSs are acceptable as they meet our July 2, 1980 model TS criteria.

2.1.4 Diverse Containment Isolation

The licensee has a containment isolation system with diverse parameters sensed to ensure automatic isolation of non-essential systems under postulated accident conditions. These parameters are containment high pressure and high radiation. We have reviewed this system in our Lessons Learned Category "A" Safety Evaluation dated April 6, 1980. The system was modified such that it does not result in the automatic loss of containment isolation after the containment isolation signal is reset. Reopening of containment isolation would require deliberate operator action. The existing TSs provide for the appropriate surveillance and actions in the event of component inoperability; therefore, we conclude that the TSs are acceptable.

2.1.7.a Auto Initiation of Auxiliary Feedwater Systems

The licensee has provided for the automatic initiation of auxiliary (emergency) feedwater flow on loss of normal feedwater flow. The auto-initiation signals used by the licensee are low steam generator water level. The TSs submitted by the licensee describe the tests and provide for proper test frequency. The TSs contain appropriate actions in the event of component inoperability; therefore, we conclude that the TSs are acceptable.

2.1.7.b Auxiliary Feedwater Flow Indication

The licensee has installed auxiliary feedwater flow indication that meets our testability and vital power requirements. We reviewed this system in our Safety Evaluation dated April 6, 1980. The licensee has proposed a TS with channel check every month and channel calibration every refueling outage. We find this TS acceptable as it meets the criteria of our July 2, 1980 model TS criteria.

2.2.1.b Shift Technical Advisor (STA)

Our request indicated that the TSs related to minimum shift manning should be revised to reflect the augmentation of an STA. The licensee agreed to add one STA to each shift to perform the function of accident assessment. The individual performing this function will have at least a bachelor's degree or equivalent in a scientific or engineering discipline with special training in plant design, and response and analysis of the plant for transients and accidents. Part of the STA duties are related to operating experience review function. We find this satisfies our requirements and is acceptable.

2.1.4 Integrity of Systems Outside Containment

Our letter dated July 2, 1980, indicated that the license should be amended by adding a license condition related to a Systems Integrity Measurements Program. Such a condition would require the licensee to effect an appropriate program to eliminate or prevent the release of significant amounts of radioactivity to the environment via leakage from engineered safety systems and auxiliary systems, which are located outside reactor containment. In discussions the licensee agreed to the requirements for this program being added to Section 6 of the Technical Specifications. Accordingly this amendment includes that addition.

2.1.8.c Iodine Monitoring

Our letter dated July 2, 1980, indicated that the license should be amended by adding a license condition related to iodine monitoring. Such a condition would require the licensee to effect a program which would ensure the capability to determine the airborn iodine concentration in areas requiring personnel access under accident conditions. In discussions the licensee agreed to the requirements for this program being added to Section 6 of the Technical Specifications. Accordingly, this amendment includes that addition.

4.0 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 the amendment.

5.0 We have concluded, based on the considerations discussed above, that: (1) because that 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: October 8, 1981

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. 67 to Provisional Operating License No. DPR-20, issued to Consumers Power Company (the licensee), which revised the 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 approves changes to the Appendix A Technical Specifications which incorporate certain of the Lessons Learned Category "A" requirements related to the Three Mile Island Accident in response to our request dated July 2, 1980.

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 action 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 December 19, 1980 and supplement thereto dated May 7, 1981, (2) Amendment No. 67 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. 20555, and at the Kalamazoo Public Library, 315 South Rose Street, Kalamazoo, Michigan 49006. A 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 Licensing.

Dated at Bethesda, Maryland, this eighth day of October, 1981.

FOR THE NUCLEAR REGULATORY COMMISSION

Thomas V. Wambach

Thomas V. Wambach, Acting Chief
Operating Reactors Branch #5
Division of Licensing