REGULATORY DOCKET FILE COPY

DISTRIBUTION
Docket
NRC PDR
Local PDR
ORB #2 Reading
NRR Reading
DEisenhut
RHVollmer
WGammill
LShao
VNoonan
KHoge
HSmith
RDSilver
OELD
OI&E (5)
BJones (4)
BScharf (10)
DBrinkman
ACRS (16)
OPA (CMiles)
RMDiggs
HRDenton
JRBuchanan
TERA
DCrutchfield

Docket No. 50-255

OCT 15 1979

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

Dear Mr. Bixel:

The Commission has issued the enclosed Amendment No. 53 to Provisional Operating License No. DPR-20 for the Palisades Plant. The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated June 13, 1978, as revised by letter dated March 6, 1979. The June 13, 1978 letter superseded previous submittals dated March 1, 1977, May 3, 1977, October 7, 1977 and January 13, 1978.

This amendment revises the Technical Specifications to replace the current inservice inspection and pump testing Technical Specifications with an inservice inspection and pump testing program that meets the requirements of 10 CFR 50.55a.

Relief from certain inservice inspection and pump testing requirements is hereby granted as discussed in the enclosed Safety Evaluation. We have determined that the granting of this relief is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest. This relief is granted, except for certain requirements as discussed in the Safety Evaluation, in response to your request of June 13, 1978, as revised March 6, 1979.

The proposed technical specifications and requests for relief related to the valve testing program submitted by your letter of June 13, 1978, are still under review.

A copy of the Notice of Issuance is also enclosed.

Sincerely,

Original signed by
Dennis L. Ziemann

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

cp

7911070285

ccp

Enclosures and cc
See next page

**OELD concurrence per model-Ft.Calhoun

OFFICE	DOR:ORB #2	DOR:ORB #2	OELD**	DOR:ORB #2	DOR:A/AD/ORP
SURNAME	RDSilver:ah	HSmith		DLZiemann	WGammill
DATE	10/11/79	10/11/79	10/ /79	10/12/79	10/15/79

NRC FORM 318 (9-76) NRCM 0240

U.S. GOVERNMENT PRINTING OFFICE: 1978 - 265 - 769

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

October 15, 1979

Docket No. 50-255

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

Dear Mr. Bixel:

The Commission has issued the enclosed Amendment No. 53 to Provisional Operating License No. DPR-20 for the Palisades Plant. The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated June 13, 1978, as revised by letter dated March 6, 1979. The June 13, 1978 letter superseded previous submittals dated March 1, 1977, May 3, 1977, October 7, 1977 and January 13, 1978.

This amendment revises the Technical Specifications to replace the current inservice inspection and pump testing Technical Specifications with an inservice inspection and pump testing program that meets the requirements of 10 CFR 50.55a.

Relief from certain inservice inspection and pump testing requirements is hereby granted as discussed in the enclosed Safety Evaluation. We have determined that the granting of this relief is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest. This relief is granted, except for certain requirements as discussed in the Safety Evaluation, in response to your request of June 13, 1978, as revised March 6, 1979.

The proposed technical specifications and requests for relief related to the valve testing program submitted by your letter of June 13, 1978, are still under review.

A copy of the Notice of Issuance is also enclosed.

Sincerely,

Dennis L. Ziemann

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

Enclosures and cc:
See next page

Enclosures:
1. Amendment No. 53 to License No. DPR-20
2. Safety Evaluation
3. Notice

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

Director, Technical Assessment Division
Office of Radiation Programs (AW-459)
U. S. Environmental Protection Agency
Crystal Mall #2
Arlington, Virginia 20460

U. S. Environmental Protection Agency
Federal Activities Branch
Region V Office
ATTN: EIS COORDINATOR
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

*W/cy of CPC filings dtd. 6/13/78 and 3/6/79

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. 53
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 13, 1978, as revised by letter dated March 6, 1979, 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.

7911070 291

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 Provision Operating 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. 53, 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

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

Attachment:
Changes to the Technical
Specifications

Date of Issuance: October 15, 1979

ATTACHMENT TO LICENSE AMENDMENT NO. 53

PROVISIONAL OPERATING LICENSE NO. DPR-20

DOCKET NO. 50-255

Revise Appendix A by removing the following pages and inserting the enclosed pages. The revised pages contain the captioned amendment number and vertical lines indicating the area of change.

PAGES

ii

4-16

4-17

4-18

4-19

4-20

4-21

4-22

4-45

TABLE OF CONTENTS (Contd)

4.3 SYSTEMS SURVEILLANCE

APPLICABILITY

Applies to preoperational and inservice structural surveillance of the reactor vessel and other Class 1, Class 2 and Class 3 system components.

OBJECTIVE

To insure the integrity of the Class 1, Class 2 and Class 3 piping systems and components.

SPECIFICATIONS

a. Prior to initial plant operation, an ultrasonic survey shall be made of reactor vessel shell welds, vessel nozzles, vessel flange welds, piping system butt welds and major welds on the pressurizer and steam generators to establish preoperational system integrity and basic conditions for future testing.

b. The structural integrity of ASME Class 1, 2 and 3 components, as determined by 10 CFR 50, Section 50.55a and Reg Guide 1.26, shall be verified and maintained at an acceptable level in accordance with Section XI of the ASME B&PV Code with applicable addenda as required by 10 CFR 50, Section 50.55a(g), except where specific relief has been granted by the NRC, and where provisions of Section 4.12 take precedence.

c. Inservice testing of ASME Class 1, 2 and 3 pumps, as determined by 10 CFR 50, Section 50.55a and Reg Guide 1.26 shall be performed in accordance with Section XI of the ASME B&PV Code with applicable addenda as required by 10 CFR 50, Section 50.55a(g), except where specific relief has been granted by the NRC.

d. Sufficient records of each inspection shall be kept to allow comparison and evaluation of future tests.

e. The Inservice Inspection program shall be reevaluated as required by 10 CFR 50, Section 50.55a(g)(5) to consider incorporation of new inspection techniques that have been proven practical, and the conclusions of the evaluation shall be used as appropriate to update the inspection program.

f. Surveillance of the regenerative heat exchanger and primary coolant pump flywheels shall be performed as indicated in Table 4.3.2.

g. A surveillance program to monitor radiation induced changes in the mechanical and impact properties of the reactor vessel materials shall be maintained as described in Section 4.5.3 of the FSAR. The specimen removal schedule shall be as indicated in Table 4.3.3.

BASIS

The inspection program specified places major emphasis on the areas of highest stress concentration as determined by general design evaluation and experience with similar systems.(1) In addition, that portion of the reactor vessel shell welds which will be subjected to a fast neutron dose sufficient to change ductility properties will be inspected. The inspections will rely primarily on ultrasonic methods utilizing up-to-date analyzing equipment and trained personnel. Preoperational inspections will establish base conditions by determining indications that might occur from geometrical or metallurgical sources and from discontinuities in weldments or plates which might cause undue concern on a postservice inspection. To the extent applicable, based upon the existing design and construction of the plant, the requirements of Section XI of the Code shall be complied with. Significant exceptions are detailed in the requests for relief which have received NRC approval and are contained in the Class 1, Class 2 and Class 3 Long-Term Inspection Plans.

REACTOR VESSEL SURVEILLANCE SPECIMENS

Table 4.3.3 is consistent with the surveillance program as presented in the FSAR.(2) However, the withdrawal schedule has been modified to reflect the slightly different wall fluence values resulting from removal of the thermal shield.

REFERENCES

(1) FSAR, Section 4.5.6.

(2) FSAR, Section 4.5.3.

TABLE 4.3.1

(Delete)

(INTENTIONALLY LEFT BLANK)

(INTENTIONALLY LEFT BLANK)

(INTENTIONALLY LEFT BLANK)

(INTENTIONALLY LEFT BLANK)

4.9 AUXILIARY FEED-WATER SYSTEM

APPLICABILITY

Applies to periodic testing requirements of the turbine-driven and motor-driven auxiliary feed-water pumps.

OBJECTIVE

To verify the operability of the auxiliary feed-water system and its ability to respond properly when required.

SPECIFICATIONS

a. The operability of the motor- and steam-driven auxiliary feed pumps shall be confirmed as required by Specification 4.3c.

b. The operability of the auxiliary feed-water pumps' discharge valves CV-0736A and CV-0737A shall be confirmed at least every three (3) months.

BASIS

The periodic testing of the auxiliary feed-water pumps will verify their operability by recirculating water to the condensate storage tank and simultaneously partially opening, one at a time, the discharge valves (CV-0736A and CV-0737A) to confirm a flow path to the steam generators.

Proper functioning of the steam turbine admission valve and the feed-water pumps' start will demonstrate the integrity of the steam-driven pumps. Verification of correct operation will be made both from instrumentation within the main control room and direct visual observation of the pumps.

REFERENCES

FSAR, Section 9.7.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 53 TO PROVISIONAL OPERATING LICENSE NO. DPR-20

CONSUMERS POWER COMPANY

DOCKET NO. 50-255

PALISADES PLANT

1.0 INTRODUCTION

On May 5, 1976, the Commission sent a generic letter to Consumers Power Company (the licensee) advising them that the inservice inspection and testing requirements for ASME Code Class 1, 2 and 3 components for nuclear power plants delineated in 10 CFR Part 50.55a were changed by a revision to the regulations published on February 27, 1976. The revised regulations require inservice inspection and testing to be performed in accordance with the examination and testing requirements set forth in Section XI of the ASME Boiler and Pressure Vessel Code and Addenda thereto. To avoid potential conflicts between the ASME Code requirements and the Technical Specifications presently in effect for the Palisades Plant, we also advised the licensee that he should apply to the Commission for amendment of the Technical Specifications. Sample language for such Technical Specifications changes was provided as an enclosure to our letter of May 5, 1976.

By letter dated June 13, 1978, the licensee requested a change to the Technical Specifications (Appendix A) appended to Provisional Operating License No. DPR-20 for the Palisades Plant. The proposed amendment and revised Technical Specifications would delete the present inspection and testing requirements in Sections 4.3 and 4.9 of the Technical Specifications and substitute therefore - language based on the enclosure with our letter of May 5, 1976. The proposed Technical Specifications would require all inspection and testing to be performed in accordance with the ASME Code except where specific written relief has been granted by the NRC pursuant to 10 CFR 50, Section 50.55a(g)(6)(i).

Our letter of May 5, 1976, also advised the licensee that if he determines that conformance with certain ASME Section XI inservice inspection and testing requirements is impractical, he should submit information to the Commission to support his determination in accordance with 50.55a(g)(5)(iii) and (iv). By letters dated January 4, 1977 and January 13, 1978, we provided additional guidance in preparing inservice

7911070 294

inspection and testing program descriptions and associated relief requests. In response to our letters, the licensee submitted a proposed Inservice Inspection and Testing Program by letters dated March 1, 1977, May 3, 1977, October 7, 1977, January 13, 1978, June 13, 1978 and March 6, 1979. The June 13, 1978 letter superseded the previous submittals. These submittals also included requests for relief from examining certain components where the licensee determined that it was impossible or impractical to examine or test the specific component because of design, geometry or materials of construction.

This Safety Evaluation only encompasses the inservice inspection and pump testing portion of the proposed technical specification change and request for relief. A separate evaluation on the valve testing portion of the application will be issued at a later date.

2.0 EVALUATION

2.1 Technical Specifications

The changes proposed by the licensee to the Technical Specifications are based on the sample Technical Specifications enclosed with our letter of May 5, 1976. The revised Technical Specifications require all inspections and pump testing to be performed in accordance with the ASME Boiler and Pressure Vessel Code and are acceptable.

2.2 Requests for Relief

As required by 10 CFR 50.55a(g), the licensee has updated the Inservice Inspection Program for the Palisades Plant to the requirements of the 1974 Edition through Summer 1975 Addenda of Section XI of the ASME Boiler and Pressure Vessel Code (B&PV Code). Based on information contained in the submittal dated June 13, 1978, and the revised submittal dated March 6, 1979, the licensee determined that certain requirements of the Code cannot be implemented at the facility because of component or system design, geometry, or materials of construction. Requested reliefs from those requirements have been reviewed and evaluated by the staff and our determinations to grant or deny the requests, pursuant to 10 CFR 50.55a(g)(6)(i), are documented below.

2.2.1 Class 1 Components

A. Request relief from performing examinations to Category B-F Code requirements of nozzle to safe end welds on the reactor pressure vessel and steam generator nozzle to pipe welds.

Code Requirement

Volumetric and surface examinations of 100 percent of Category B-F welds during each inspection interval (10 years).

Basis For Requesting Relief

The transition pieces between the carbon steel nozzles and the carbon steel piping are also carbon steel and thus not dissimilar metal safe-ends. The examination Category B-J which applies to piping also applied to these welds rather than Category B-F.

Evaluation

As defined by the applicable code, these welds are not Category B-F and would therefore qualify for examination under B-J category. However, they are "safe-ends" and subjected to the higher stress levels associated with terminal ends and wall thickness transitions.

It is the staff's position that these welds should be included and inspected to Category B-J requirements with the restriction that the inspection be expanded to include 100 percent of each weld during this inspection interval. However, this examination could be included in the 25 percent examination requirements of Category B-J welds.

B. Request relief from examination of the reactor vessel cladding. (Item B1.14, Examination Category B-I-1)

Code Requirement

Visual examination performed during each inspection interval shall cover 100 percent of the patch areas. The areas shall include at least six patches (each 36 square inches) evenly distributed in accessible sections of the vessel shell.

Basis For Requesting Relief

The areas to be visually inspected are inaccessible when the core barrel is in place. Since this examination can only be performed from the inside surface of the reactor vessel shell, the required examination can only be performed when the core barrel is removed.

Evaluation

The inaccessibility of the internal surface of the reactor vessel makes the required visual inspection of the surface areas impractical for the licensee to perform with the core barrel in place. A surface examination of the closure head cladding Item B1.13, is possible during the inspection interval and the licensee has committed to do a supplementary examination during the interval which includes a remote visual examination of the vessel interior (Item B1.15, closure head cladding (Item B1.13), and if possible clad surface inspection of outlet nozzles in place of the inspection required under this examination category.

C. **Request relief from volumetric examination of inaccessible welds which are identified below:**

<u>Item B4.5 Category B-J</u>
PCS-42-RCL-1H1-2LD, -3LU, -3, -3LD
PSC-42-RCL-2H1-2LD, -3LU, -3, -3LD

<u>Code Requirements</u>

Volumetric examination of 25 percent of circumferential weld during each inspection interval.

<u>Basis For Requesting Relief</u>

These welds are inaccessible, as determined by a visual examination by the licensee, for volumetric or surface examination because they are buried inside the reactor shield.

<u>Evaluation</u>

Access to volumetrically and/or surface examine these welds are not possible. All welds identified above as being inaccessible shall be visually inspected by observing the general area after a four-hour hold at the pressure test requirements stated in Section XI IWA/IWB-5000. This examination, and other volumetric inspections required by Section XI of similar welds on the Class I piping which can be performed, will provide assurance that no degradation has occurred and that the piping pressure boundary will remain structurally acceptable during the inspection interval.

This relief does not apply in the event paragraph IWB-2430 of Section XI is applicable.

D. Request relief to delay the volumetric examination of the reactor vessel to flange, head to flange and inlet and outlet nozzle welds until the end of the 10-year inspection interval.

<u>Code Requirement</u>

Volumetric examination of 100 percent of each weld during the inspection interval. The examination must be divided and inspected at 1/3 intervals during the 10-year interval.

<u>Basis For Requesting Relief</u>

Deferment to the end of 10-year interval will allow all mechanized examinations to be performed during the same outage when the core barrel is removed. The core barrel is scheduled to be removed only at the end of each interval.

Evaluation

One-third of the reactor vessel to flange weld was inspected during the first inspection period. As stated in a later code addenda (Winter 1975) this inspection can be performed at the end of the inspection interval.

To allow automatic scanning and recording of this weld and to be consistent with the later code addenda, the balance (two-thirds) of this weld must be performed at the end of the inspection interval.

The reactor pressure vessel closure head to flange weld is accessible for examination. Therefore, the weld must be examined in accordance with the frequency in IWB-2410.

The inlet and outlet nozzles are not accessible for automatic ultrasonic examinations until the core barrel is removed at the end of the 10-year inspection interval. The two outlet nozzles were examined during the first inspection interval to the extent required by Code Case 1647 and no unacceptable flaws were found. The inlet nozzles are inaccessible to examine in accordance with Code Case 1647.

If the core barrel is removed from the reactor vessel for other reasons, 100 percent of the volume shown in Figure IWB-3512.1(a) of one outlet and one inlet nozzle shall be examined volumetrically. However, 100 percent must be completed by the end of the ten-year interval.

It is our judgment that the examinations we recommend and the inspection of the outlet nozzles to Code Case 1647 will provide an adequate level of assurance that the reactor pressure vessel will remain structurally sound throughout this period.

On this basis, relief may be granted.

E. Request relief from volumetric examination of the circumferential weld in the reactor pressure vessel closure head. (Item B1.2)

Code Requirement

Volumetric examination of five percent of the length of each circumferential head weld.

Basis For Requesting Relief

The circumferential weld in the closure head is inaccessible for examination due to control rod guide tube constraints.

Evaluation

The weld is located within the cluster of control rod guide tubes which penetrate the reactor pressure vessel head. The weld is the dollar plate to peel segment and volumetric examination of this weld is impractical to perform. Therefore, relief may be granted from the requirement for volumetric and visual examinations during the system pressure test.

F. Request relief from visual inspection of nonperipheral control rod drive bolting. (Item B1.11, Examination Category B-G-2)

CODE REQUIREMENT

Visual examinations performed during each inspection interval shall cover 100% of the bolts, studs, and nuts. Bolting may be examined either in place under tension, when the connection is disassembled, or when the bolting is removed.

LICENSEE BASIS FOR REQUESTING RELIEF

Nonperipheral CRDM bolting is not accessible for visual examination. Peripheral CRDM bolting will be visually examined.

EVALUATION

The inaccessibility of the inner control rods bolting hinders the visual examination required by the Code when the control rod assemblies are in place. However, the code requirement allows the examination to be performed either in place, when disassembled, or when the bolting is removed. Visual examination of the peripheral control rod bolting in place will provide a significant sample to gain assurance of the structural condition of the inner control rod bolting. The staff concludes that this request may be granted if the inner control rod assemblies are not disassembled or the bolting removed during this inspection period. If the inner assemblies are disassembled or the bolting removed, visual examination as required by the Code shall be performed.

G. Request relief from examination of the reactor pressure vessel and closure head cladding. (Item B1.13, Examination Category B-I-1)

CODE REQUIREMENT

The examination, visual and surface or volumetric, shall include at least six patches (each 36 sq. in.) evenly distributed in the vessel and in the closure head. The examinations performed during each inspection interval shall cover 100% of the patch areas.

LICENSEE BASIS FOR REQUESTING RELIEF

Category B-I-1 examinations were deleted from the ASME Code, Section XI, in the 74S76 Addenda. The integrity of the cladding will be monitored through the conduct of Category B-A, B-B, B-D, B-N-1 and B-N-3 examinations.

EVALUATION

The licensee has not demonstrated that the Code requirement is impractical to implement at his faciltiy as required by 10 CFR 50.55a(g). The Inservice Inspection Program is based upon the requirements of the 1974 Edition through Summer 1975 Addenda of Section XI of the ASME Code. Deletion of the examination requirements from a later Addenda of the Code which has not been endorsed by the NRC is not adequate to justify not performing the required visual examination. The staff concludes that relief from the requirement may not be granted.

H. Request relief from examination of the pressurizer and steam generator cladding. (Item B2.9 and B3.8, Examination Category B-I-2)

CODE REQUIREMENT

Visual examination shall include one patch (36 sq. in.) near each manway in the primary side of the vessel. The examination of the patches may be performed at or near the end of the inspection interval.

LICENSEE BASIS FOR REQUESTING RELIEF

Category B-I-2 examinations were deleted from the ASME B&PV Code, Section XI, in the 74S76 Addenda. The integrity of the cladding will be monitored through the conduct of Category B-B and B-D examinations.

EVALUATION

The licensee has not demonstrated the Code requirement to be impractical for implementation at the facility. The Inservice Inspection Program for the facility is based upon the requirements of the 1974 Edition through Summer 1975 Addenda of Section XI of the ASME Code. Deletion of the examination requirements from a later Addenda of the Code which has not been endorsed by the NRC is not an adequate justification for not performing the visual examination required. Therefore, the staff concludes that this request for relief may not be granted.

2.2.2 Class 2 Components

A. Request relief from volumetric examination of inaccessible welds which are identified below:

ESS-24-SIS-SH1-201
ESS-24-SIS-SH1-202, -203, -204
ESS-24-SIS-SH2-201
ESS-24-SIS-SH2-202, -203, -204
ESS-14-SCS-2H1-209
ESS-8-CSS-SLA-224
ESS-8-CSS-SLB-224
ESS-6-SIS-1HP-211
ESS-6-SIS-SHP-219
RWS-6-CWR-SL4-201
ESS-12-SIS-1LP-232
SFP-3-CPL-DLI-207
SFP-6-CPL-SLI-207

Code Requirement

Volumetric examination shall cover 100 percent of the welds during a 40-year period.

Basis For Requesting Relief

These welds are inaccessible for volumetric or surface examination because of either being encased in the steel plate missile shield or in the containment penetration structure.

Evaluation

Volumetric or surface examination of these welds is restricted by not having access to the outside surface due to the interference from steel plate or concrete. All welds identified above as being inaccessible shall be visually inspected for leakage by observing the general area after a four-hour hold at the pressure test requirements as stated in IWC-5000. This examination, and other volumetric inspections required by Section XI of similar systems, will provide assurance that no degradation has occurred and the piping pressure boundary will remain structurally acceptable during the inspection interval. Therefore, relief may be granted.

This relief, however, does not apply in the event paragraph IWC-2430 of Section XI is applicable.

B. Request relief from volumetric examination of welds covered by pipe hanger strapping which are identified below:

ESS-14-CSS-1PB-210, -211
ESS-10-CSS-1PB-224, -225
ESS-14-CSS-1PC-213
ESS-14-SDC-LPD-213

Code Requirement

Volumetric examination shall cover 100 percent of the welds during a 40-year period.

Basis For Requesting Relief

The welds are covered by pipe hanger strapping and inaccessible for volumetric examination.

Evaluation

The requirement to volumetrically examine these welds once during a 40-year period is not considered impractical. Therefore, these pipe hanger straps must be removed at some point in the 40-year period and the welds be volumetrically examined. On this basis, the requested relief is denied.

2.2.3 General - All Classes

A. Request to use 100 percent of the reference level as the evaluation criterion for indications detected during ultrasonic examination of piping welds.

Code Requirement

Ultrasonic examination shall be conducted in accordance with the provisions of Appendix I. Where Appendix I is not applicable, the provisions of Article 5 of Section V shall apply.

Basis For Requesting Relief

Evaluation of indications at 20% of the reference level increases the number of indications which have to be evaluated by a very significant amount. To evaluate and record the numerous indications would require examination personnel to stay longer periods of time in radiation areas.

Evaluation

Evaluating indications at or above the 20% reference level places a great burden on the licensee. The 100% reference level evaluation is judged sufficiently reliable for detection of defects warranting evaluation. As an interim measure, relief may be granted from the 20% reference level evaluation criterion provided the following are incorporated in the ultrasonic examination procedure:

1) All indications at or above 50% DAC shall be recorded.

2) All indications 100% DAC or greater shall be recorded and evaluated in accordance with the rules of Section XI.

3) Indications 20% DAC or greater which are interpreted by a Level 2 or Level 3 examiner to be a crack must be identified and evaluated to the rules of Section XI.

B. Request relief from the holding time requirement for system hydrostatic and leak tests. (IWA-5210)

CODE REQUIREMENT

The pressure-retaining components shall be visually examined while the system is under the hydrostatic test pressure and temperature. The test pressure and temperature shall be maintained for at least four hours prior to the performance of the examinations.

LICENSEE BASIS FOR REQUESTING RELIEF

Application of four-hours holding time for hydrostatic and leak testing is not necessary for noninsulated systems. IWA-5213, Section XI, 77W77 Edition requires no holding time for leak tests and a 10-minute holding time for hydro tests on noninsulated components.

EVALUATION

The four-hour holding time required by the 1974 Edition of Section XI during hydrostatic tests is intended for application to systems where the base material and weld deposits are covered by insulation. The purpose of the holding time is to allow pressure boundary leakage to become evident at the insulation surface. Where the base material and weld are visible, the intent of the holding time is meaningless and deletion of this requirement will not decrease the effectiveness of the examination. The staff concludes that this request may be granted with the following conditions:

1) When performing a system pressure test the entire system must be visible directly. This includes the welds and all base materials.

2) When the areas are exposed, the pressure and temperature required by the Code for the hydrostatic and leak test shall be maintained for a minimum time of ten (10) minutes and for such additional time as may be necessary to conduct the examinations.

3) Following a repair, the repaired area must be accessible for a direct visual examination.

2.2.4 Pumps

A. Request relief from measurement of bearing temperature of the service water, charging, and concentrated boric acid pumps.

Code Requirement

Bearing temperatures shall be measured during at least one inservice test each year.

Basis for Requesting Relief

The design of these pumps does not permit direct bearing temperature measurements.

Evaluation

The design of the concentrated boric acid pumps would permit indirect measurement of bearing temperatures by measuring the surface contact temperatures of the bearing housings which the licensee has committed to do. Since there are no installed oil coolers, these measurements are considered to be closely related to oil temperatures which are, in turn, correlative to bearing temperatures.

The design of the charging pumps does not permit accurate measurement of the bearing housings because of oil coolers installed for these pumps.

The service water pumps are submerged in water and not accessible for any measurements.

The licensee has committed to vibration amplitude measurements on a monthly basis. Because of the frequency of measurement of this parameter and the Code requirement to compare this parameter to reference values, we have determined that the vibration amplitude measurement is a suitable indicator of bearing degradation and bearing degradation will be detected sooner by vibration amplitude measurements taken monthly than by yearly bearing temperature measurements. On this basis, relief from measurement of bearing temperature may be granted.

B. Request relief from measuring the suction pressure of pumps listed below:

PUMP	ASME CLASS
P7A, B, C, Service Water Pumps	3
P8A, B, Auxiliary Feedwater Pumps	3
P52A, B, C, Component Cooling Pumps	3
P54, A, B, C, Containment Spray Pumps	2
P55A, B, C, Charging Pumps	2
P56A, B, Boric Acid Pumps	2
P66A, B, C, HP Safety Injection Pumps	2
P67A, B, LP Safety Injection Pumps	2

Code Requirement

Measure inlet pressure monthly.

Basis For Requesting Relief

There is no instrumentation for measuring this parameter.

Evaluation

Although a direct measurement of suction pressure is not being performed, the licensee has included in his program a means to detect changes in inlet pressure . This will be accomplished by taking the difference between each pump suction and its associated expansion tank pressure and calculating inlet pressure. The differential pressure will be calculated by taking this pressure calculation and the difference from the discharge pressure.

It is the staff's position that this technique will detect any changes associated with pump suctions which is the intent of the requirements stated in ASME Section XI. On this basis, the relief from measurement of inlet pressure may be granted.

C. Request relief from examination requirements of ASME Section XI for the following items designated to be inspected in Section XI.

Code Item	Component
B2.5, B2.6, B2.7	Pressurizer Bolting
B3.4, B3.5, B3.6	Steam Generator Bolting
B4.2, B4.3, B4.4	Piping Bolting
B6.6	Valve Seam Welds
B6.1, B6.2, B6.3	Valve Bolting

Basis For Requesting Relief

There are no items in the facility which fall into these categories.

Evaluation

There are no such items in the facility. Therefore, relief is not required.

2.2.5 Summary - Inservice Inspection and Pump Testing

The licensee has submitted information to support his determinations that certain ASME Section XI Code (1974 Edition through Summer 1975) requirements are impractical to implement at the Palisades Plant. We have evaluated the licensee's bases for his determinations and find that relief from specific Code requirements requested may be granted for the reasons given in the evaluation. Based on the foregoing, we find that the relief requested is authorized by law, will not endanger life or property or the common defense and security and is in the public interest considering the burden on the licensee that could result if the relief were not granted. We conclude that the revised Inservice Inspection and Pump Testing Program meets the requirements of 10 CFR 50.55a(g).

3.0 ENVIRONMENTAL CONSIDERATION

We have determined that this amendment and granting of the relief do 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 and relief involve actions which are 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 these actions.

4.0 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: October 15, 1979

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-255

CONSUMERS POWER COMPANY

NOTICE OF ISSUANCE OF AMENDMENT TO PROVISIONAL OPERATING LICENSE AND GRANTING OF RELIEF FROM ASME SECTION XI INSERVICE INSPECTION (TESTING) REQUIREMENTS

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 53 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 revises the Technical Specifications to replace the current inservice inspection and pump testing Technical Specifications with an inservice inspection and pump testing program that meets the requirements of 10 CFR 50.55a.

By letter dated October 15, 1979, as supported by the related Safety Evaluation, the Commission has also granted relief from certain requirements of the ASME Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components" to the licensee. The relief relates to inservice inspection and pump testing program for the facility. The ASME Code requirements are incorporated by reference into the Commission's rules and regulations in 10 CFR Part 50. The relief is effective as of its date of issuance.

The application for the amendment and request for the relief comply 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, and letter and Safety Evaluation granting relief. Prior public notice of the amendment was not required since the amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of this amendment and granting of the relief 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 these actions.

For further details with respect to these actions, see (1) the application for amendment dated June 13, 1978, as revised by the licensee's letter dated March 6, 1979, (2) Amendment No. 53 to License No. DPR-20, (3) the Commission's related Safety Evaluation, and (4) the Commission's letter to the licensee dated October 15, 1979. 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 copy of items (2), (3) and (4) 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 15th day of October, 1979.

FOR THE NUCLEAR REGULATORY COMMISSION

Dennis L. Ziemann

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