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RECEIVED FEB 23 1981 U.S. NUCLEAR REGULATORY COMMISSION

Docket No. 50-255
LS05-81-01-034

JANUARY 22 1981

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

Dear Mr. Hoffman:

The Commission has issued the enclosed Amendment No. 63 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 July 3, 1980.

The amendment deletes the restrictions and monitoring requirements for non-radiological effluents from the Appendix A Technical Specifications and from the "Special Technical Specifications Pursuant to Agreement," and revises Paragraph 3.B of the license to reflect the addition of an Environmental Protection Plan to the license as Appendix B. The changes you requested with respect to radiological effluents and monitoring will be considered at a later time during the Commission's evaluation of your program to implement the provisions of Appendix I to 10 CFR Part 50.

During our review of your application, we found it necessary to modify your proposed license amendment. We have discussed these changes with your representative and have mutually agreed upon them.

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

Sincerely,
Original signed by
Dennis M. Crutchfield

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

Enclosures:
1. Amendment No. 63 to License No. DPR-20 w/ Appendix B (environmental Protection Plan)
2. Safety Evaluation
3. Notice of Issuance

F.R. NOTICE + AMENDMENT ONLY
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1/19/81

cc w/enclosures:
~~See next page~~

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OFFICE			DL:ORB #5	DL:ORB #5	OELD	DL:ORB #5	DL:AD/SA
SURNAME			TWambach:cc	HSmith		DCrutchfield	GLainas
DATE			1/13/81	1/13/81		1/22/81	1-22-81

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

January 22, 1981

Docket No. 50-255
LS05-81-01-034

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

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The amendment deletes the restrictions and monitoring requirements for non-radiological effluents from the Appendix A Technical Specifications and from the "Special Technical Specifications Pursuant to Agreement," and revises Paragraph 3.B of the license to reflect the addition of an Environmental Protection Plan to the license as Appendix B. The changes you requested with respect to radiological effluents and monitoring will be considered at a later time during the Commission's evaluation of your program to implement the provisions of Appendix I to 10 CFR Part 50.

During our review of your application, we found it necessary to modify your proposed license amendment. We have discussed these changes with your representative and have mutually agreed upon them.

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

Sincerely,

Dennis M. Crutchfield

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Operating Reactors Branch #5
Division of Licensing

Enclosures:
1. Amendment No. 63 to License No. DPR-20 w/ Appendix B (Environmental Protection Plan)
2. Safety Evaluation
3. Notice of Issuance

cc w/enclosures:
See next page

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Van Buren County, Michigan 49043

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Lansing, Michigan 48913

Director, Criteria and Standards Division
Office of Radiation Programs (ANR-460)
U. S. Environmental Protection Agency
Washington, D. C. 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

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Palisades Plant
ATTN: Mr. J. G. Lewis
Plant Manager
Covert, Michigan 49043

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

* w/incoming dated July 3, 1980.

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. 63
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 July 3 , 1980, 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, 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. 63, 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 M. Crutchfield

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

Attachments:
1. Changes to the Technical Specifications
2. Appendix B (Environmental Protection Plan)

Date of Issuance: January 22, 1981

ATTACHMENT TO LICENSE AMENDMENT NO. 63

PROVISIONAL OPERATING LICENSE NO. DPR-20

DOCKET NO. 50-255

Revise 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*
3-50	3-50
3-50a	3-50a
3-51	3-51
3-51a	--
3-52	3-52**
3-52a	3-52a
4-47	4-47
4-50	4-50
4-50a, b, c	--
4-51 through 4-55	4-51 through 4-55
4-55a, b, c, d	--
4-57	4-57
4-58	4-58
4-58a, b, c	--
4-59	4-59
6-25a	6-25a
6-25b	6-25b
6-25c	--
S-2 through S-5	S-2 through S-5
S-9	S-9
S-10 through S-13	--

*This page also reflects the Environmental Qualification Provision issued by NRC Order dated October 24, 1980

**There are no changes to the provisions contained on this page; a typographical error has merely been corrected.

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Amendment No. 37, 48, 63

3.9 EFFLUENT RELEASE

Applicability

Applies to the controlled release of radioactive liquids and gases.

Objectives

To define the conditions for release of radioactive wastes from the plant discharge mixing basin and from the plant vent to assure that any radioactive material released is kept as low as practicable and, in any event, is within the limits of 10 CFR 20.

3.9.1 The release rate of radioactive liquid effluents shall be such that at all times under normal operating conditions, radioactive materials in liquid discharges released from the plant to Lake Michigan shall be reduced to essentailly zero (i.e., lake water background); provided that radioactive materials in the laundry waste system discharges, which cannot be treated in the dirty waste system of the modified liquid radwaste system without the possibility of impairing the function of dirty waste system equipment, may be released to Lake Michigan at levels not exceeding 2.5×10^{-8} μCi/cc on an annual average basis, as specified in the Special Technical Specifications, Section S-2. This concentration is 25% of the 1×10^{-7} μCi/cc limit for unidentified mixtures in 10 CFR 20, Appendix B, Table II, for unrestricted areas. Under abnormal operating conditions, releases shall not exceed, on a quarterly average basis and on an individual isotopic analysis basis, 10% of applicable 10 CFR Part 20 limits, and shall be reduced to

EFFLUENT RELEASE (cont'd)

essentially zero no later than 60 consecutive days after the commencement of such releases resulting form abnormal operating conditions. See Special Technical Specifications, Section S-2, for further details.

3.9.2 During release of radioactive liquids, the MPC, as defined in 10 CFR 20, shall not be exceeded at the point of discharge to the lake.

3.9.3 Prior to release of liquid wastes, a sample shall be taken from the tank to be discharged and analyzed. The flow rate from the tank and the discharge rate from the mixing basin shall be determined in order to calculate the concentration of radioactive materials in the mixing basin to demonstrate compliance with 3.9.1 and 3.9.2 above.

3.9.4 During the release of liquid radioactive wastes, the following conditions shall be met.

a. Flow through the mixing basin shall be at least 8,000 gpm.

b. During any release, the discharge monitor shall be in operation with the exception that if it (RIA-1049) is down for maintenance, sampling of the discharge water shall be taken every four hours and each sample analyzed.

3.9.5 Under normal operating conditions, the expected release to the environment from the modified liquid waste system shall be zero after integration of the modified and existing liquid radioactive waste system is completed. All radioactive liquids not meeting Specification 3.9.1 will be recycled or prepared for shipment in accordance with applicable rules, regulations and orders of governmental authorities having jurisdiction and turned over to a carrier or carriers licensed by governmental authorities having jurisdiction for shipment to an authorized disposal area or areas. Under abnormal operating conditions, such as (but not limited to) steam generator tube leakages, fire, or pipe breakage, liquid radioactive wastes may be discharged to the environment. These discharges shall be performed in accordance with the requirements of the Special Technical Specifications, Section S-2.2.

3.9.6 through 3.9.9 (Deleted)

3.9.10 (Deleted)

Gaseous Wastes

3.9.11 The average annual release rates of gaseous and airborne particulate wastes shall be limited in accordance with the following equation:

$$\sum \frac{Q_i}{(MPC)_i} \leq 5 \times 10^{11} \text{ (cc/sec)}$$

where Q_i is the annual release rate (μCi/sec) of any radioisotope, i, and $(MPC)_i$ in the units of μCi/cc is defined in Column 1, Table II, of Appendix B to 10 CFR 20. See Special Technical Specifications, Section S-2.5 for further details.

3.9.12 The average gaseous release rate over any 15-minute period shall not exceed 10 times the yearly average limit.

3.9.13 Following isolation and prior to release of gaseous wastes from the waste gas decay tanks, the contents shall be sampled and analyzed to determine compliance with 3.9.11 and 3.9.12.

3.9.14 For purposes of calculating permissible releases by the above formula, MPC for halogens and particulates with half-lives longer than 8 days will be divided by a factor of 35 from their listed value in 10 CFR 20, Appendix B.

EFFLUENT RELEASES (cont'd)

3.9.15 During release of gaseous wastes to the plant vent stack, the following conditions shall be met:

a. At least one main exhaust fan shall be in operation.

b. The gaseous radioactivity monitor and the particulate monitor shall be in operation during discharges with the exception that if RIA-1113 is down for maintenance, sampling of the stack effluent shall be taken every four hours and each sample analyzed.

3.9.16 During power operation, whenever the air ejector discharge monitor is inoperable, samples shall be taken from the air ejector discharge and analyzed for gross radioactivity daily.

3.9.17 Gaseous radioactive waste shall have the following minimum holdup times prior to release:

a. Potentially high-radioactivity gaseous waste collected by the waste gas surge tank - a minimum of 15 days up to 60 days of holdup if the concentration of xenon-133 exceeds the detection limit of 1×10^{-5} μCi/cc (except as noted in 3.9.17.c). No holdup required except as provided by the piping system itself if the concentration of xenon-133 is less than the limit of 1×10^{-5} μCi/cc.

b. Low-radioactivity gaseous waste collected by the gas collection header shown on FSAR Figure 11-3.
No holdup required except as provided by piping system itself.

c. Gaseous waste may be discharged from waste gas surge tank through a high efficiency filter or from a waste gas decay tank with less than 15 days of holdup directly to the stack for a period not to exceed 7 days if the holdup system equipment is not available and the release rates meet Specifications 3.9.11, 3.9.12, and 3.9.14.

3.9.18 It is expected that releases of radioactive materials in effluents shall be kept at small fractions of the limits specified in 20.106 of 10 CFR 20. At the same time the licensee is permitted the flexibility of operation, compatible with considerations of health and safety, to assure that the public is provided a dependable source of power even under unusual operating conditions which may temporarily result in releases higher than such small fractions, but still within the limits specified in 20.106 of 10 CFR 20.* It is expected that in

*See Special Technical Specifications attached.

using this operational flexibility under unusual operating conditions, the licensee shall exert its best efforts to keep levels of radioactive material in effluents as low as reasonably achievable.

Bases

Liquid wastes from radioactive waste disposal system are diluted in the discharge mixing basin prior to release to the lake.[1] A minimum

4.11 ENVIRONMENTAL MONITORING PROGRAM

Applicability

Applies to routine testing of plant environs and to an analytical evaluation of the data collected from the environmental monitoring survey carried out.

Objective

To establish a sampling and surveillance schedule which will assure recognition of changes in the environs due to plant operations and assure that effluent releases are kept as low as reasonably achievable and within Federal and State limits.

Specifications

4.11.1 Radiological environmental samples(1) shall be taken according to the following schedule:

Table 4.11.1

Specific Samples and Collection Frequency

Sample Class	Collection Frequency	Amount To Be Collected (Operational)
(a) Air	Weekly	12
(b) Lake Water	Monthly	2
(c) Well Water	Monthly when available	3
(d) Milk	Monthly when available	4
(e) Organic	Monthly in Season	Crops and Fish As Desired
(f) Film or TLD	Monthly	21
(g) Lake Bottom Sediment	Twice per Year	4

4.11.2 The sensitivities listed below and in Table 4.11.2 shall be used for the samples listed in Table 4.11.1.

Air - An I-131 analysis shall be performed on all air samples. When a gross beta count reveals radioactivity levels in excess of 1 pCi/m^3, gamma spectrum analysis shall be performed.

11.3 Plant equipment shall be used in conjunction with developed operating procedures to maintain surveillance of radioactive gaseous and liquid effluents produced during normal reactor operations and expected operational occurrences in an effort to maintain radioactive releases to unrestricted areas as reasonably achievable.

4.11.4 (Deleted)

4.11.5 (Deleted from page 4-50c)

Deleted

are far below those resulting in maximum permissible dose (MPD) to man. In other words, levels of radioactivity in water, air or food to be detected shall be far below those resulting in MPD to man. Levels of radioactivity in water, air or food to be detected shall be a small fraction of any effective maximum permissible concentration (MPC) allowed in such a sample. This is sometimes called the absolute contribution approach. On the other hand, there is a level of release to the environment with a resultant corresponding level in food, air and water below which it is absurd to perform any specific isotopic analyses. Consequently, the sensitivities outlined in Table 4.11.2 are a compromise between the preceding two requirments. This schedule will insure that changes in the environmental radioactivity can be detected. The materials which first show changes in radioactivity are sampled most frequently. Those which are less affected by transient changes but show long-term accumulations are sampled less frequently. After a few years of operation, it is desirable to review the established limits. Data on the actual concentrations in food or other organisms (if any are observed) will permit this reevaluation.

The lake bottom sediment samples taken twice during the summer months will be sufficient to detect any buildup in Cs-137.

The gross beta limit on 1×10^{-12} μCi/cc on air samples represents 1% of the MPC, as given in 10 CFR Part 20, for unknown mixtures of gamma-emitting nuclides.

(Intentionally Blank)

Deleted

References

(1) FSAR, Section 2.5.

3. Significant Levels of Radioactivity

If samples or measurements averaged over appropriate data base indicate statistically significant levels of radioactivity above established or concurrent backgrounds, the following information shall be provided:

a. The type of analysis performed, e.g., alpha, beta, gamma and/or isotopic.

b. The minimum sensitivity of the monitoring system.

c. The measured radiation level of sample concentration.

d. The specific times when samples were taken and measurements were made.

e. An estimate of the likely resultant exposures to the public.

4. If levels of radioactive materials in environmental media due to plant origin indicate the likelihood of public exposure in excess of 5% of those that would result from continuous exposure to the concentration values listed in Appendix B, Table II of 10 CFR 20, estimates shall be presented of the likely resultant exposure to individuals and to population groups and assumptions on which estimates are made.

C. (deleted)

D. Deleted

6.9.3.2 Nonroutine Reports

A report shall be submitted in the event that (a) the radiological monitoring programs are not substantially conducted as described in Section 4.11; or (b) an unusual or important event occurs from plant operation that causes a significant environmental impact or affects a potential environmental impact. Reports shall be submitted within 30 days.

No such other requirements of the Technical Specifications shall be effective to permit the licensee to fail to comply with any requirement of the following special technical specifications. However, the licensee shall not be required to comply with the following special technical specifications during the time and to the extent that the licensee is relieved of obligation to comply therewith in accordance with their terms.

As used in these special technical specifications the term "Palisades Plant" means and refers to a single-unit nuclear electric generating plant and shall not be deemed to include any additional electric generating units that may hereafter be installed at the Palisades Plant site.

SECTION S-1 (Deleted)

(This page intentionally blank)

SECTION S-2 - LIQUID RADWASTE SYSTEM MODIFICATION

§S-2.1 Consumers Power shall modify the liquid radwaste system now installed in the Palisades Plant in the manner provided in these special technical specifications. The liquid radwaste system as so modified (and in these special technical specifications called the "modified liquid radwaste system") shall be so designed, constructed, operated and maintained that at all times under normal operating conditions, radioactive materials in liquid discharges from the Palisades Plant to Lake Michigan are reduced to essentially zero; provided, however, that radioactive materials in laundry waste system discharges which cannot be treated in the dirty waste system of the modified liquid radwaste system without the possibility of impairing the function of dirty waste system equipment may be released to Lake Michigan at levels which shall in no event exceed 25 picocuries per liter (2.5×10^{-8} microcuries/cc) on an annual average basis; and provided further, that "essentially zero," as used herein, shall not be construed to preclude liquid discharges to Lake Michigan containing radioactive materials at levels, as sampled at the recycle monitor tank before dilution, equivalent to or below then-current Lake Michigan background radioactivity levels, as monitored offshore from the Palisades Plant prior to such

system; provided that radioactive materials in liquid discharges to Lake Michigan shall be at levels which are at all times as low as practicable and which do not exceed, on a quarterly average basis and on an individual isotopic analysis basis, and based on the assumptions used in Section 11 of Consumers Power's Final Safety Analysis Report to the AEC for the Palisades Plant as amended to December 1, 1970, (i) under normal or abnormal operating conditions as defined in §S-2.1 hereof and assuming no failed fuel, two percent (2%) of applicable 10 CFR Part 20 limits in effect as of December 1, 1970; and (ii) under normal or abnormal operating conditions as defined in §S-2.1 hereof and assuming some failed fuel, ten percent (10%) of applicable 10 CFR Part 20 limits in effect as of December 1, 1970.

§S-2.5 In line 8 of subsection 3.9.13 of Section 3.9, "EFFLUENT RELEASE" of the Technical Specifications, add the following after "10 CFR 20":

> "for gaseous releases, and within the limits for liquid releases specified in the special technical specifications included herein at the request of the licensee pursuant to a settlement agreement dated in March, 1971."

APPENDIX B

TO PROVISIONAL OPERATING LICENSE NO. DPR-20

PALISADES PLANT

CONSUMERS POWER COMPANY

DOCKET NO. 50-255

ENVIRONMENTAL PROTECTION PLAN

(NON-RADIOLOGICAL)

Date: January 22, 1981

8103090267

PALISADES PLANT

ENVIRONMENTAL PROTECTION PLAN

(NON-RADIOLOGICAL)

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1.0 Objectives of the Environmental Protection Plan

The Environmental Protection Plan (EPP) is to provide for protection of environmental values during construction and operation of the nuclear facility. The principal objectives of the EPP are as follows:

(1) Verify that the plant is operated in an environmentally acceptable manner, as established by the FES and other NRC environmental impact assessments.

(2) Coordinate NRC requirements and maintain consistency with other Federal, State and local requirements for environmental protection.

(3) Keep NRC informed of the environmental effects of facility construction and operation and of actions taken to control those effects.

Environmental concerns identified in the FES which relate to water quality matters are regulated by way of the licensee's NPDES permit.

2.0 Environmental Protection Issues

In the final addendum to the FES-OL dated February 1978 the staff considered the environmental impacts associated with the operation of the Palisades Plant. Certain environmental issues were identified which required study or license conditions to resolve environmental concerns and to assure adequate protection of the environment.

2.1 Aquatic Issues

Specific aquatic issues raised by the staff in the FES-OL were:

The need for aquatic monitoring programs to confirm that thermal mixing occurs as predicted, that chlorine releases are controlled within those discharge concentrations evaluated, and that effects on aquatic biota and water quality due to plant operation are no greater than predicted.

Aquatic issues are addressed by the effluent limitations, and monitoring requirements are contained in the effective NPDES permit issued by the State of Michigan, Department of Natural Resources. The NRC will rely on this agency for regulation of matters involving water quality and aquatic biota.

2.2 Terrestrial Issues

1. Potential impacts on the terrestrial environment associated with drift from the mechanical draft cooling towers. (FES-OL addendum Section 6.3)

2. Potential increase in fogging associated with operation of the mechanical draft cooling towers. (FES-OL addendum Section 6.3).

3. The need for controlled used of herbicides on transmission rights-of-way. (FES-OL addendum Sections 6.3.3)

NRC requirements with regard to the 3 terrestrial issues are specified in Subsection 4.2 of this EPP.

3.0 Consistency Requirements

3.1 Plant Design and Operation

The licensee may make changes in station design or operation or perform tests or experiments affecting the environment provided such changes, tests or experiments do not involve an unreviewed environmental question, and do not involve a change in the Environmental Protection Plan. Changes in plant design or operation or performance of tests or experiments which do not affect the environment are not subject to the requirements of this EPP. Activities governed by Section 3.3 are not subject to the requirements of this section.

Before engaging in additional construction or operational activities which may affect the environment, the licensee shall prepare and record an environmental evaluation of such activity. When the evaluation indicates that such activity involves an unreviewed environmental question, the licensee shall provide a written evaluation of such activities and obtain prior approval from the Director, Office of Nuclear Reactor Regulation. When such activity involves a change in the Environmental Protection Plan, such activity and change to the Environmental Protection Plan may be implemented only in accordance with an appropriate license amendment as set forth in Section 5.3.

A proposed change, test or experiment shall be deemed to involve an unreviewed environmental question if it concerns (1) a matter which may result in a significant increase in any adverse environmental impact previously evaluated in the final environmental statement (FES) as modified by staff's testimony to the Atomic Safety and Licensing Board, supplements to the FES, environmental impact appraisals, or in any decisions of the Atomic Safety and Licensing

Board; or (2) a significant change in effluents or power level [in accordance with 10 CFR Part 51.5(b)(2)] or (3) a matter not previously reviewed and evaluated in the documents specified in (1) of this Subsection, which may have a significant adverse environmental impact.

The licensee shall maintain records of changes in facility design or operation and of tests and experiments carried out pursuant to this Subsection. These records shall include a written evaluation which provide bases for the determination that the change, test, or experiment does not involve an unreviewed environmental question nor constitute a decrease in the effectiveness of this EPP to meet the objectives specified in Section 1.0. The licensee shall include as part of his Annual Environmental Operating Report (per Subsection 5.4.1) brief descriptions, analyses, interpretations, and evaluations of such changes, tests and experiments.

3.2 Reporting Related to the NPDES Permits and State Certifications

Violations of the NPDES Permit or the State certification (pursuant to Section 401 of the Clean Water Act) shall be reported to the NRC by submittal of copies of the reports required by the NPDES Permit or certification.

Changes and additions to the NPDES Permit or the State certification shall be reported to the NRC within 30 days following the date the change is approved. If a permit or certification, in part or in its entirety, is appealed and stayed, the NRC shall be notified within 30 days following the date the stay is granted.

The NRC shall be notified of changes to the effective NPDES Permit proposed by the licensee by providing NRC with a copy of the proposed change at the same time it is submitted to the permitting agency. The notification of a licensee-initiated change shall include a copy of the requested revision submitted to the permitting agency. The licensee shall provide the NRC a copy of the application for renewal of the NPDES permit at the same time the application is submitted to the permitting agency.

3.3 Changes Required for Compliance with Other Environmental Regulations

Changes in plant design or operation and performance of tests or experiments which are required to achieve compliance with other Federal, State, or local environmental regulations are not subject to the requirements of Section 3.1.

4.0 Environmental Conditions

4.1 Unusual or Important Environmental Events

Any occurrence of an unusual or important event that indicates or could result in significant environmental impact causally related to plant operation shall be recorded and promptly reported to the NRC within 24 hours by telephone, telegraph, or facsimile transmissions followed by a written report per Subsection 5,4.2. The following are examples: excessive bird impaction events, onsite plant or animal disease outbreaks, mortality or unusual occurrence of any species protected by the Endangered Species Act of 1973, fish kills, increase in nuisance organisms or conditions and unanticipated or emergency discharge of waste water or chemical substances.

No routine monitoring programs are required to implement this condition.

4.2 Environmental Monitoring

4.2.1 Meteorological Monitoring

A meteorological monitoring program shall be conducted in the vicinity of the plant site for at least two years after conversion to cooling towers to document effects of cooling tower operation on meteorological variables. Data on the following meteorological variables shall be obtained from the station network shown in Figure 4.2.1: precipitation, temperature, humidity, solar radiation, downcoming radiation, visibility, wind direction and wind speed. In addition, studies shall be conducted for at least two years to measure effects of cooling tower drift on vegetation by associated salt deposition, icing or other causes.

Observations shall be made of a series of sample vegetation plots, and chemical analyses shall be made of representative samples of vegetation, soil and collected moisture to establish relative amounts of drift at various locations and influences on plant life. The incidence of icing and fogging on nearby transportation arteries shall be determined. Noise measurements shall be taken with and without the cooling tower in operation at different locations on site and around the surrounding areas. The study program to assess the meteorological and terrestrial effects of cooling tower operation onsite and offsite shall be carried out as follows:

METEOROLOGICAL STUDY

	Sample	Frequency	Objective
(a)	Precipitation	Continuously	To determine if the c.t.* influence natural precipitation processes.
(b)	Temperature	Continuously	To establish c.t.* plume influences on temperature if any.
(c)	Relative Humidity	Continuously	To determine if the c.t.* plume produces an increase in R.H.
(d)	Total Solar Radiation	Continuously	To determine if the c.t.* plume inhibit total solar radiation.
(e)	Total Solar Plus Atmospheric Radiation	Continuously	To determine the presence of nocturnal c.t.* plume.
(f)	Visibility	Continuously	To detect the presence of fog.
(g)	Wind Direction	Continuously	To determine the direction of movement to the c.t.* plume and alterations in wind patterns.

*c.t. - cooling towers

METEOROLOGICAL STUDY (Cont'd)

	Sample	Frequency	Objective
(h)	Wind Speed	Continuously	To determine if the c.t.* plume affect local wind speeds.
(i)	Icing	During winter months	To determine if c.t.* plume creates icing problems of nearby highways and roads.
		DRIFT STUDY	
(a)	Precipitation Collected and Analyzed for $SO_4^{=}$ and Ca^{++}	Monthly	To establish pattern and rate of drift deposited ions.
(b)	Analysis of Vegetational Composition	Survey 3 times per year (spring, summer, fall)	To determine if c.t.* drift is altering the vegetational composition.
(c)	Vegetational Chemical Analysis	Yearly	To determine if drift deposited elements are concentrating in vegetation.
(d)	Soil Chemical Analysis	Yearly	To determine if drift deposited elements are concentrating in soils.
(e)	Icing	Winter months	To determine if c.t.* drift (ice) is physically damaging to vegetation.

4.2.2 Herbicide Application

The use of herbicides within the transmission corridor rights-of-way shall conform to the approved use of selected herbicides as registered by the Environmental Protection Agency and approved by State authorities and applied as directed by said authorities.

*c.t. - cooling towers

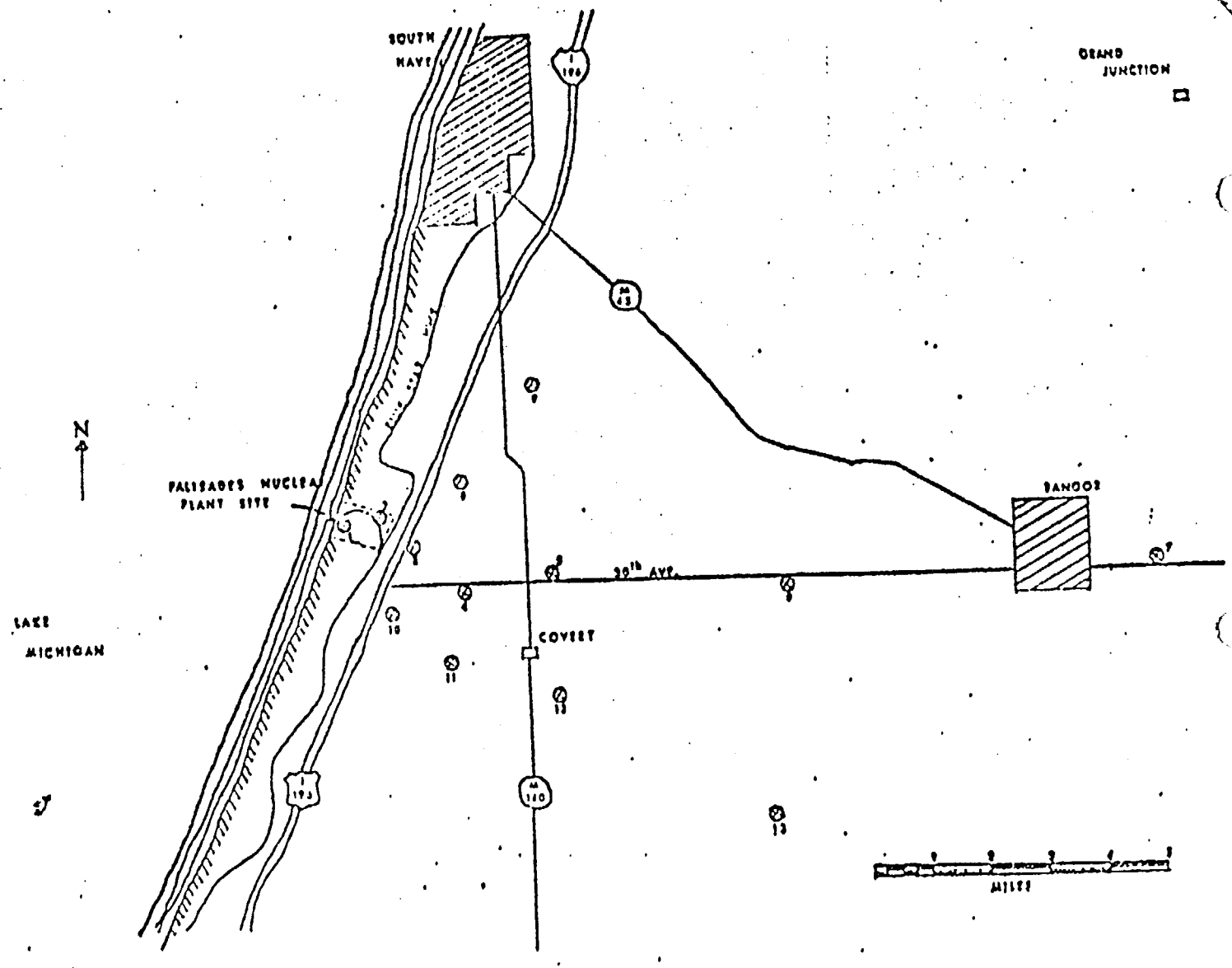

Figure 4.2.1 Locations of climatological stations

Records shall be maintained in the appropriate division office concerning herbicide use. Such records shall include the following information: commercial and chemical names of materials used; concentration of active material in formulations diluted for field use; diluting substances other than water; rates of application; method and frequency of application; location; and the date of application. Such records shall be maintained for a period of 5 years and be made readily available to the NRC upon request. There shall be no routine reporting requirement associated with this condition.

5.0 Administrative Procedures

5.1 Review and Audit

The licensee shall provide for review and audit of compliance with the Environmental Protection Plan. The audits shall be conducted independently of the individual or groups responsible for performing the specific activity. A description of the organization structure utilized to achieve the independent review and audit function and results of the audit activities shall be maintained and made available for inspection.

5.2 Records Retention

Records and logs relative to the environmental aspects of plant operation shall be made and retained in a manner convenient for review and inspection. These records and logs shall be made available to NRC on request.

Records of modifications to plant structures, systems and components determined to potentially affect the continued protection of the environment shall be retained for the life of the plant. All other records, data and logs relating to this EPP shall be retained for five years or, where applicable, in accordance with the requirements of other agencies.

5.3 Changes in Environmental Protection Plan

Request for change in the Environmental Protection Plan shall include an assessment of the environmental impact of the proposed change and a supporting justification. Implementation of such changes in the EPP shall not commence prior to NRC approval of the proposed changes in the form of a license amendment incorporating the appropriate revision to the Environmental Protection Plan.

5.4 Plant Reporting Requirements

5.4.1 Routine Reports

An Annual Environmental Operating Report describing implementation of this EPP for the previous year shall be submitted to the NRC prior to May 1 of each year. The initial report shall be submitted prior to May 1 of the year following issuance of the operating license. The period of the first report shall begin with the date of issuance of the operating license.

The report shall include summaries and analyses of the results of the environmental protection activities required by Subsection 4.2 of this Environmental Protection Plan for the report period, including a comparison with preoperational studies, operational controls (as appropriate), and previous nonradiological environmental monitoring reports, and an assessment of the observed impacts of the plant operation on the environment. If harmful effects or evidence of trends towards irreversible damage to the environment are observed, the licensee shall provide a detailed analysis of the data and a proposed course of action to alleviate the problem.

The Annual Environmental Operating Report shall also include:

(a) A list of EPP noncompliances and the corrective actions taken to remedy them.

(b) A list of all changes in station design or operation, tests, and experiments made in accordance with Subsection 3.1 which involved a potentially significant unreviewed environmental issue.

(c) A list of nonroutine reports submitted in accordance with Subsection 5.4.2.

In the event that some results are not available by the report due date, the report shall be submitted noting and explaining the missing results. The missing data shall be submitted as soon as possible in a supplementary report.

5.4.2 Nonroutine Reports

A written report shall be submitted to the NRC within 30 days of occurrence of nonroutine event. The report shall (a) describe, analyze, and evaluate the event, including extent and magnitude of the impact and plant operating characteristics, (b) describe the probable cause of the event, (c) indicate the action taken to correct the reported event, (d) indicate the corrective action taken to preclude repetition of the event and to prevent similar occurrences involving similar components or systems, and (e) indicate the agencies notified and their preliminary responses.

Events reportable under this subsection which also require reports to other Federal, State or local agencies shall be reported in accordance with those reporting requirements in lieu of the requirements of this subsection. The NRC shall be provided a copy of such report at the same time it is submitted to the other agency.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 63 TO PROVISIONAL OPERATING LICENSE NO. DPR-20

CONSUMERS POWER COMPANY

PALISADES PLANT

DOCKET NO. 50-255

1.0 INTRODUCTION

By letter dated July 3, 1980, Consumers Power Company (CPC) submitted a license amendment request to delete certain radiological and non-radiological restrictions and monitoring requirements from the Palisades Technical Specifications and the "Special Technical Specifications Pursuant to Agreement." The licensee's basis for these deletions is that the requirements to be deleted were the result of a Settlement Agreement between CPC and the Michigan Steelhead and Solmon Fishermen's Association which terminated in October, 1977.

This safety evaluation concerns only the non-radiological aspects of the licensee's request. The radiological sections will be considered during the evaluation of the licensee's implementation of the provisions of Appendix I to 10 CFR Part 50.

2.0 DISCUSSION

The licensee's proposal is to replace the water quality restrictions in the various parts of the technical specifications with references to the National Pollutant Discharge Elimination System (NPDES) permit which has been issued for the Palisades Plant. The NRC has taken the position (based on the ASLB Yellow Creek Decision) that water quality conditions in existing reactor operating licenses should be promptly removed as a matter of law where the licensee holds an effective NPDES permit, and an Environmental Protection Plan (EPP) has been adapted as the standard format for all new plants and as a backfit to existing plants on a case-by-case basis. The EPP is designed to keep the NRC aware of the environmental effects of plant operation, while recognizing that the regulation of non-radiological aspects of aquatic effluents and related monitoring lies with the appropriate NPDES permitting agency.

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In preparing the EPP for the Palisades Plant we have deleted the water quality limiting conditions and monitoring programs from the Appendix A Technical Specifications and the "Special Technical Specifications" and have replaced them with reporting requirements for the licensee to provide the NRC with copies of notices of violations or changes to the permit. We have also moved the terrestrial monitoring to the EPP without making any modifications to its monitoring programs.

We have contacted the NPDES permitting authority, the Michigan Department of Natural Resources, and determined that similar requirements on the discharge of heat (temperature) and chlorine are contained in the permit and that the licensee has completed requirements under Section 316(a) and (b) of the Clean Water Act. Furthermore, the Michigan Department of Natural Resources has no objections to the removal of the NRC requirements and our reliance on them for protection of aquatic resources.

We have, therefore, determined that the licensee is justified in deleting the water quality requirements not only on the basis that the Settlement Agreement has terminated, but also because the Technical Specification water quality requirements are now contained in an effective NPDES permit.

3.0 ENVIRONEMENTAL 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.

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 accident 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: January 22, 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. 63 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 deletes the restrictions and monitoring requirements for non-radiological effluents from Appendix A of the Technical Specifications and adds a new Environmental Protection Plan to the license as Appendix B.

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.

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For further details with respect to this action, see (1) the application for amendment dated July 3, 1980, (2) Amendment No. 63 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 22nd day of January, 1981.

FOR THE NUCLEAR REGULATORY COMMISSION

Dennis M. Crutchfield

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