

ATTACHMENT
Consumers Power Company
Palisades Plant
Docket 50-255

1985 ANNUAL ENVIRONMENTAL OPERATING REPORT
January 1 - December 31, 1985

25 Pages

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Palisades Nuclear Plant

Annual Non-Radiological Environmental Operating Report

1.0 BACKGROUND

Appendix B to Provisional Operating License Number DPR-20 for the Palisades Nuclear Plant, Consumers Power Company, is entitled "Environmental Protection Plan (Non-Radiological)". This document requires Consumers Power Company to submit to the Nuclear Regulatory Commission an Annual Environmental Operating Report prior to May 1 of each year which describes implementation of the Environmental Protection Plan. The period covered by this annual report is January 1 to December 31, 1985.

The Plant operated at greater than 90% of the demonstrated capacity from January 1 until November 30. The Plant was shutdown during December for refueling. The reactor was critical for 7,490 hours and the generator was on line for 7,344 hours producing 5.6 giga watt hours gross electrical power (5.3 GWH net).

The operation of the Palisades Plant did not result in any overall impact on the environment surrounding the Plant.

2.0 ENVIRONMENTAL IMPACT EVALUATIONS

Evaluations of environmental impact were performed on two major construction activities during 1985. These evaluations did not involve any previously unreviewed environmental questions. Summaries of the activities and the evaluations performed are included in Appendix A.

3.0 UNUSUAL ENVIRONMENTAL EVENTS

On September 6, twenty-two small birds were found to have died near the Palisades Support Building. Six of the birds were submitted for analysis to the Michigan Animal Health Diagnostic Laboratory. The lab determined that the birds died from skull fractures. The evaluation of this incident indicated that the birds probably flew into the closed windows of the Support Building as this is a common occurrence with migratory birds. This event was determined not to be related in any manner to the operation of the Plant.

4.0 ENVIRONMENTAL MONITORING

4.1 Meteorological Monitoring to Document Effects of Cooling Tower Operation on Meteorological Variables

No activities in this area for 1985.

4.2 Herbicide Application

Herbicide applications to brush and trees along the exit corridor of Line 306B (Palisades-Tallmadge #1) was completed in June 1985. Brush control treatments along this 345 kV transmission line are on an approximate six year cycle. The work was conducted by Davey Tree Expert Company under General Office Forestry supervision.

Treatments consisted of foliage spraying with Tordon 101 (Picloram and 2,4-D) in a 1% solution with water or mixed with Garlon 4 (Triclopyr) at a rate of two quarts Tordon 101 plus one quart Garlon 4 in 99½ gallons of water. Application rate was between 66 and 200 gallons per acre depending on brush size and density. Scattered and larger trees and brush were cut or frilled and treated to prevent sprout and sucker regrowth. Approximately five pints of Tordon RTU (Picloram and 2,4-D) and two pints of Banvel CST (Dicamba) were used for these treatments. A total of 24.24 acres along the exit corridor of Line 306B were treated with herbicides in 1985.

All herbicides, treatment methods, rates, etc., are in accordance with Federal and State pesticide use regulations. Records and additional information on these herbicide treatments are available from General Office Forestry.

5.0 REVISED PERMITS

The Michigan Department of Natural Resources reissued the Plant NPDES Permit on May 21, 1985. A copy of this permit was provided to USNRC by letter dated August 1, 1985. The reissued NPDES Permit is included as Appendix B.

6.0 NON-ROUTINE REPORTS

6.1 Spills Reported During 1985

In compliance with State and Federal spill reporting requirements, fourteen spill incidents were reported to the Michigan Department of Natural Resources during 1985. A summary of the spill events is contained in Appendix C.

6.2 NPDES Compliance

In accordance with NPDES reporting requirement, eighteen NPDES Notification Reports were submitted to the Michigan Department of Natural Resources. These reports are summarized in Appendix D.

APPENDIX A

Appendix A

Environmental Evaluations

Security Intrusion Alarm Modification

This modification required removal of an additional 30 feet of the north dune. The sand removed in cutting back the dune was placed in a spoils area adjacent to the dune. This spoils area was used for original site grading. The entire area was surveyed by the Company's Terrestrial Biologist and the closest occurrence of the endangered species "Pitchers Thistle" was over 400 feet to the north. In order to protect the environment for these plants, the area was roped off. Construction Permits obtained to perform the work were as follows:

VB Soil Erosion and Sedimentation Permit 80101020

Michigan Department of Natural Resources Permit 85-12-116G

Shore Erosion Stabilization Project

Triangular concrete prisms and rock fill material was placed at the shore line from the mixing basin north to the protected area north boundary. It was determined that there was minimal environmental impact associated with this project. Construction Permits obtained to perform the work were as follows:

Army Corporation of Engineers Regional Permit 80-200-1

Michigan Department of Natural Resources Permit 85-12-116G

APPENDIX B



NATURAL RESOURCES COMMISSION

THOMAS J. ANDERSON
E. R. CAROLLO
MARLENE J. FLUHARTY
STEPHEN F. MOHNSMA
O. STEWART MYERS
RAYMOND POUPORE
HARRY H. WHITELEY

JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING
BOX 30028
LANSING, MI 48909

RONALD O. SKOOG, Director

May 31, 1985

CERTIFIED MAIL
RETURN
RECEIPT
REQUESTED

No 66752

CERTIFIED MAIL

Consumers Power Company
212 West Michigan Avenue
Jackson, Michigan 49201

Re: NPDES Permit No. MI 0001457
Palisades Plant, Covert, Michigan

Dear Gentlemen:

Your application for a National Pollutant Discharge Elimination System (NPDES) Permit has been processed in accordance with appropriate state and federal regulations.

Your NPDES Permit contains: 1) limitations which require you to monitor your effluent in accordance with Part I, Section A; and 2) a schedule of compliance for submittal of information concerning other permit requirements.

REVIEW THE PERMIT EFFLUENT LIMITS AND PERFORMANCE SCHEDULES CAREFULLY. These are subject to the criminal and civil enforcement provisions of both state and federal law. Permit violations are audited by the United States Environmental Protection Agency and will appear in a published quarterly noncompliance report made available to agencies and the public.

Your monitoring and reporting responsibilities shall be complied with in accordance with Part I, Section B of this permit. If applicable, monthly operating report forms will be transmitted to you in the near future. These reports are to be submitted monthly or otherwise as required by your NPDES permit.

Any reports, notifications, and questions regarding the attached permit or NPDES program should be addressed to the following address:

Fred Morley, District Supervisor
621 North Tenth Street
P.O. Box 355
Plainwell, Michigan 49080
Telephone: (616) 685-9886

Consumers Power Company
May 31, 1985
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NOTE: All references within this permit made to the Water Quality Division or Chief of the Water Quality Division are to refer to the Surface Water Quality Division or Chief of the Surface Water Quality Division, respectively.

Sincerely,

William E. McCracken

William E. McCracken, P.E.
Chief, Permits Section
Surface Water Quality Division
517-373-8088

Enclosure: Permit

cc: EPA-Region V (2)
Files
Water Quality Surveillance
Compliance Section #1
Fred Morley - Plainwell District
Land Application Unit
208 Agency - Southwest Michigan Regional Planning Commission

MICHIGAN WATER RESOURCES COMMISSION
AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provision of the Federal Water Pollution Control Act, as amended, (33, U.S.C. 1251 et seq; the "Act"), and the Michigan Water Resources Commission Act, as amended, (Act 245, Public Acts of 1929, as amended, the "Michigan Act"),

Consumers Power Company
212 West Michigan Avenue
Jackson, Michigan 49201

is authorized to discharge from a facility located at

Palisades Plant
27780 Blue Star Memorial Highway
Covert, Michigan 49043

to receiving water named Lake Michigan

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I and II hereof.

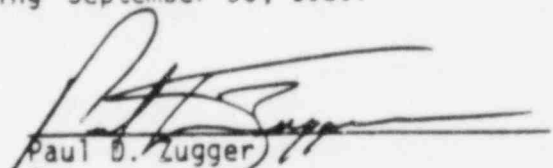
This permit takes effect immediately upon the date of issuance. Any person who feels aggrieved by this permit may file a sworn petition with the Commission, setting forth the conditions of the permit which are being challenged and specifying the grounds for the challenge. The Commission may reject any petition filed more than 60 days after issuance as being untimely. Upon granting of a contested case to the applicant, the Commission shall review the permit to determine which contested terms shall be stayed until the Commission takes its final action. All other conditions of the permit remain in full effect. If the contested condition is a modification of a previous permit condition and the Commission determines the contested condition shall be stayed, then such previous condition remains in effect until the Commission takes final action. During the course of any administrative proceeding brought by a person other than the applicant, the conditions of this permit will remain in effect, unless the Commission determines otherwise.

This permit and the authorization to discharge shall expire at midnight April 30, 1990. In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit such information and forms as are required by the Michigan Water Resources Commission no later than 180 days prior to the date of expiration.

This permit is based on an application dated March 27, 1980 and updated October 18, 1984, and shall supersede any and all Orders of Determination, Stipulation, Final Orders of Determination, or NPDES Permits previously adopted by the Michigan Water Resources Commission.

Issued this 21st day of May 1985, by the Michigan Water Resources Commission superseding NPDES Permit No. MI 0001457, expiring September 30, 1980.

Reissue


Paul D. Zuger
Executive Secretary

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. Final Effluent Limitations - Outfall 001 (mixing basin discharge)

During the period beginning on the effective date of this permit and lasting until the expiration of this permit, the permittee is authorized to discharge a maximum of one hundred thirty-five million two hundred thousand (135,200,000)* gallons per day of treated wastewater through the mixing basin outfall 001 to Lake Michigan consisting of the combination of the following defined individual discharges:

<u>Internal Outfall Descriptions</u>	<u>Maximum Flow (MGD)*</u>
00A - South cooling tower suction basin overflow	25.9
00B - North cooling tower suction basin overflow	23.8
00C - Cooling tower blowdown	86.0
00D - Radwaste wastewater	0.1
00E - Neutralizer tank wastewater	0.1
00F - Turbine sump oil separator including Volume Reduction System	0.1

*This flow is not to be considered as a limitation on either the quantity or rate over time of discharge.

The discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	<u>kg/day (lbs/day)</u>		<u>Other Limitations</u>		<u>Measurement Frequency</u>	<u>Sample Type</u>
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>		
Flow, M ³ /Day (MGD)					Daily	
Temperature (°F)						
Intake					Daily	Continuous**
Discharge					Daily	Continuous**
Heat Discharge Rate			1.3 x 10 ⁹ BTU/hr		Daily	Calculation

In addition to the Heat Discharge Rate limitations specified above, the discharge shall not increase the temperature of Lake Michigan at the edge of a mixing zone equivalent to 72 acres (a defined area equivalent to that of a circle of radius of 1,000 feet) more than 3° above the existing natural temperature or above the following monthly maximum temperature:

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
45	45	45	55	60	70	80	80	80	65	60	50	
Outfall Observation***											Daily	Visual

**Once per shift (3 times daily) grab sample measurement is permissible when either the continuous monitor or recorder is out of service for calibration or repair.

***Any unusual characteristics of the discharge (i.e., unnatural turbidity, color, oil film, floating solids, foams, settleable solids, or deposits) shall be reported immediately to the District Office of the Surface Water Quality Division followed with a written report within 5 days detailing the findings of the investigation and the steps taken to correct the condition.

PART I-A

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	kg/day (lbs/day)		Other Limitations		Measurement Frequency	Sample Type
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum		
Total Residual Chlorine (TRC)						Three grab
Issuance date to May 31, 1987				0.2 mg/l	Per occurrence	samples
After June 1, 1987						equally
June 1 - September 30			0.1 mg/l	0.2 mg/l	Per occurrence	spaced during
October 1 - May 31			0.05 mg/l	0.2 mg/l	Per occurrence	chlorination
Chlorine Application Time****				120 mins.	Report applica- tion time	

****The amount of chlorine applied shall be limited to the minimum amount needed to prevent biofouling. The permittee may use dechlorination techniques to achieve the applicable limitations, using sodium thiosulfate or sodium sulfite as dechlorination reagents. The quantity of reagent used shall be limited to 1.5 times the stoichiometric amount needed for dechlorination. The permittee shall report monthly the quantity of each dechlorination reagent used per day.

The "monthly average" value for TRC shall be calculated by determining the mean value of all TRC analyses done during the month. Analyses which show no detectable TRC shall be included as values of zero in calculating the mean value. The detection limit shall be 0.02 mg/l or less.

The "daily maximum" shall not be exceeded for any individual sample, even though three grab samples are taken during periods of chlorination.

The permittee has the opportunity to demonstrate to the Michigan Water Resources Commission that the TRC limits cannot be consistently achieved. Such demonstration shall be made on or before June 1, 1987. If the permittee makes a successful demonstration to the Commission, this permit may be modified consistent with the protection of the receiving water.

a. The pH shall not be less than 6.0 nor greater than 9.0. The pH shall be monitored as follows: continuous**; report daily minimum and maximum.

b. The receiving water shall contain no unnatural turbidity, color, oil film, floating solids, foams, settleable solids, or deposits in quantities which are or may become injurious to any designated use as a result of this discharge.

c. Samples, measurements, and observations taken in compliance with the monitoring requirements above shall be taken as follows: intake - prior to entering the plant; discharge - prior to discharge to Lake Michigan; chlorine - prior to entering water from which fish are not precluded.

d. In the event the permittee shall require the discharge of water treatment additives in addition to or in greater quantities than those identified in the permittee's NPDES application (Revision 3) dated November 11, 1981, and approved by the Chief of the Surface Water Quality Division on March 11, 1982, the permittee shall notify the Division Chief. Written approval from the Chief of the Surface Water Quality Division to discharge such additives at specified levels shall be obtained prior to discharge by the permittee. The permit will be modified in accordance with the requirements of Part II, Section B-4 if a constituent of the additive or additives requires limiting.

2. Final Effluent Limitations - (Internal outfalls 00A through 00F)

During the period beginning on the effective date of this permit and lasting until the expiration of this permit, the permittee is authorized to discharge the following discharges through the mixing basin outfall 001 to Lake Michigan. Such discharges shall be limited and monitored at internal points identified as 00A, 00B, 00C, 00D, 00E, and 00F, by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	kg/day (lbs/day)		Other Limitations		Measurement Frequency	Sample Type
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum		
<u>00A & 00B - cooling tower suction basins overflow</u>						
Flow, M ³ /Day (MGD)					Daily	
<u>00C - cooling tower blowdown</u>						
Flow, M ³ /Day (MGD)					Daily	
<u>00D - radwaste wastewater</u>						
Flow, M ³ /Day (MGD)					Per Batch	Grab
Total Suspended Solids (mg/l)			30	100	Per Batch	Grab
Total Phosphorus (mg/l)				2	Per Batch	Grab
<u>00E - neutralizer tank wastewater</u>						
Flow, M ³ /Day (MGD)					Per Batch	
Total Suspended Solids (mg/l)			30	100	Per Batch	Grab
<u>00F - turbine sump oil separator including volume reduction system</u>						
Flow, M ³ /Day (MGD)					Daily	
Oil and Grease (mg/l)			15	20	Weekly	Grab

a. Samples and measurements taken in compliance with the monitoring requirements above shall be taken prior to discharge to the mixing basin or co-mingling with other wastewater.

b. In the event the permittee shall require the discharge of water treatment additives in addition to or in greater quantities than those identified in the permittee's NPDES application (Revision 3) dated November 11, 1981, and approved by the Chief of the Surface Water Quality Division on March 11, 1982, the permittee shall notify the Division Chief. Written approval from the Chief of the Surface Water Quality Division to discharge such additives at specified levels shall be obtained prior to discharge by the permittee. The permit will be modified in accordance with the requirements of Part II, Section B-4 if a constituent of the additive or additives requires limiting.

3. Final Effluent Limitations

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee is required to dispose of debris removed from intake trash bars and screens on land in an appropriate manner.

4. Final Effluent Limitations

Effective upon the date of issuance of this permit, the company shall not discharge any polychlorinated biphenyl compounds such as those commonly used for transformer fluids.

5. Special Condition

This permit may be modified, or, alternatively revoked and reissued to comply with any applicable standard(s) or limitation(s) promulgated under Section 301(b)(2)(c)(d), 304(b)(2) and 307(a)(2) of the Act, if the effluent standard(s) or limitation(s) so promulgated:

- a. is(are) either different in conditions or more stringent than any effluent limitation in the permit; or
- b. control(s) any pollutant not limited in the permit.

6. Special Condition - Notification Requirement

The discharger shall notify the Chief of the Surface Water Quality Division, in writing, within 10 days of knowing, or having reason to believe, that any activity has occurred or will occur which would result in the discharge of:

1. Detectable levels* of chemicals on the current Michigan Critical Materials Register or priority pollutants or hazardous substances set forth in 40 CFR 122.21, Appendix D, 1983 which were not acknowledged in the application** or listed in the application at less than detectable levels.
2. Detectable levels* of any other toxic substances not listed in the application or listed at less than detection, for which the application specifically requested information.
3. Any toxic substances at levels greater than five times the average level reported in the application**.

Any other monitoring results obtained as a requirement of this permit shall be reported in accordance with the schedule of compliance.

*The detectable level shall be defined as the Method Detection Limit (MDL) as given in Appendix B to Part 136, Federal Register, Vol. 49, No. 209, October 26, 1984, pp. 43430-31.

**The application dated March 27, 1980 and amended on October 18, 1984.

PART I

B. MONITORING AND REPORTING

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

2. Reporting: ☒ A = applicable to your facility; ☐ NA = not applicable to your facility

☒ a. MOR Submittal Requirements - The permittee shall submit Monthly Operating Report (MOR) forms to the Data Center of the Michigan Department of Natural Resources for each calendar month of the authorized discharge period(s). The MOR's shall be postmarked no later than the 10th day of the month following each month of the authorized discharge period(s).

☐ b. Retained Self-Monitoring Requirements - The permittee shall maintain a year-to-date log of retained self-monitoring results and provide such log for inspection to the staff of the

- ☐ (1.) Surface Water Quality Division/Groundwater Quality Division of the Michigan Department of Natural Resources.
- ☐ (2.) Environmental Health Services Division, Michigan Department of Public Health
- ☐ (3.) Northern Peninsula Division, Michigan Department of Public Health
- ☐ (4.) Division of Health Facility Licensing & Certification, Michigan Department of Public Health

upon request.

The permittee shall certify in writing to the Chief of the Surface Water Quality Division/Groundwater Quality Division of the Department of Natural Resources, in accordance with the Schedule of Compliance Part I, C- NA, that:

- (1.) all retained self-monitoring requirements have been complied with and a year-to-date log has been maintained.
- (2.) the flow rate(s) (if part of retained self-monitoring results) from all outfalls have been substantially the same as the flow rate(s) authorized by this permit or if
- (3.) the flow rate(s) (if part of retained self-monitoring results) is (are) substantially different from the flow rate(s) authorized by this permit and the permittee shall provide reasons for the difference in flow rates.

☐ c. Groundwater Monitoring - The permittee shall submit Monthly Operating Report (MOR) forms to the Data Center of the Michigan Department of Natural Resources in accordance with the monitoring requirements set forth in Part I, A- NA. The MOR's shall be postmarked no later than the 10th day of the month following each completed report period.

☐ d. First Permit - Existing or Proposed Facility - Upon issuance of the first permit for an existing or proposed facility the permittee is exempt from submitting MOR's for a period of ninety (90) days from the date the permit is issued.

☒ e. Permit Reissuance or Modification - For any parameter added to the monitoring requirements as a result of permit reissuance or modification of the current permit, the permittee will be exempt from submitting MOR data for that parameter for a period of ninety (90) days from the date the permit is issued.

3. Definitions

a. The monthly average discharge is defined as the total discharge by weight, or concentration if specified, during the reporting month divided by the number of days in the reporting month that the discharge from the production or commercial facility occurred. When less than daily sampling occurs, the monthly average discharge shall be determined by the summation of the measured daily discharges by weight, or concentration if specified, divided by the number of days during the reporting month when the samples were collected, analyzed and reported.

b. The daily maximum discharge means the total discharge by weight, or concentration if specified, during any calendar day.

c. The Regional Administrator is defined as the Region V Administrator, U.S. EPA, located at 230 South Dearborn, 13th Floor, Chicago, Illinois 60606.

d. The Michigan Water Resources Commission is located in the Stevens T. Mason Building. The mailing address is Box 30028, Lansing, Michigan 48909.

4. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations published pursuant to Section 304(h) of the Act, under which such procedures may be required.

5. Recording Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date, and time of sampling;
- b. The dates the analyses were performed;
- c. The person(s) who performed the analyses;
- d. The analytical techniques or methods used; and
- e. The results of all required analyses.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Monthly Operating Report. Such increased frequency shall also be indicated.

7. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if requested by the Regional Administrator or the Michigan Water Resources Commission.

C. SCHEDULE OF COMPLIANCE

1. The permittee shall continue to operate the installed facilities to achieve the effluent limitations specified for outfall(s) 001.

2. The permittee shall comply with the requirements of Section 10, Part II-A in accordance with the following:

a. Submit plans for approval to the Chief of the Surface Water Quality Division necessary to comply with the primary power provision of Section 10 in Part II on or before NA.

b. The permittee shall comply with the requirements of items 10a or 10b contained in Part II on or before NA. Notwithstanding the preceding sentence, the permittee shall at all times halt, reduce, or otherwise control production in order to protect the waters of the State of Michigan upon reduction or loss of the primary source of power.

3. No later than 14 calendar days following a date identified in the above schedule of compliance, the permittee shall submit either a report of progress or, in the case of specific actions being required by identified dates, a written statement of compliance or noncompliance. In the latter case, the statement shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement. Failure to submit the written statement is just cause to pursue enforcement action pursuant to the Commission Act and the Part 21 Rules.

PART II

A. MANAGEMENT REQUIREMENTS

1. Duty to Comply

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

It is the duty of the permittee to comply with all the terms and conditions of this permit. Any noncompliance with the Effluent Limitations, Special Conditions, or terms of this permit constitutes a violation of Public Acts 245 of 1929, as amended, and/or PL 92-500, as amended, and constitutes grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of an application for permit renewal.

2. Change of Conditions

Any anticipated facility expansion, production increases, or process modification which will result in new, different, or increased discharges of pollutants must be reported by submission of a new application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the permit issuing authority of such changes. Following such notice, the permit may be modified to specify and limit any pollutant not previously limited.

3. Containment Facilities

The permittee shall provide facilities for containment of any accidental losses of concentrated solutions, acids, alkalies, salts, oils, or other polluting materials in accordance with the requirements of the Michigan Water Resources Commission Rules, Part 5. This requirement is included pursuant to Section 5 of the Michigan Water Resources Commission Act, 1929 PA 245, as amended, and the Part 5 rules of the General Rules of the Commission.

4. Operator Certification

The permittee shall have the waste treatment facilities under direct supervision of an operator certified by the Michigan Water Resources Commission, as required by Section 6a of the Michigan Act.

5. Noncompliance Notification

If, for any reason, the permittee does not comply with or will be unable to comply with any daily maximum effluent limitation specified in this permit, the permittee shall provide the Chief of the Surface Water Quality Division with the following information, in writing, within five (5) days of becoming aware of such condition:

- a. A description of the discharge and cause of noncompliance; and
- b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and the steps taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

6. Spill Notification

The permittee shall immediately report any spill or loss of any product, by-product, intermediate product, oils, solvents, waste material, or any other polluting substance which occurs to the surface waters or groundwaters of the state by calling the Department of Natural Resources 24-hour Emergency Response telephone number 1-800-292-4706; and the permittee shall within ten (10) days of the spill or loss, provide the state with a full written explanation as to the cause and discovery of the spill or loss, clean-up and recovery measures taken, preventative measures to be taken, and schedule of implementation. This requirement is included pursuant to Section 5 of the Michigan Water Resources Commission Act, 1929 PA 245, as amended.

7. Facility Operation

The permittee shall at all times properly operate and maintain all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

8. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the surface or groundwaters of the state resulting from noncompliance with any effluent limitation specified in this permit including, but not limited to, such accelerated or additional monitoring as necessary to determine the nature and impact of the discharge in noncompliance.

9. By-Passing

Any diversion from or by-pass of facilities necessary to maintain compliance with the terms and conditions of this permit is prohibited, except (i) where unavoidable to prevent loss of life, personal injury, or severe property damage, or (ii) where excessive storm drainage or runoff would damage any facilities necessary for compliance with the effluent limitations and prohibitions of this permit. The permittee shall promptly notify the Michigan Water Resources Commission and the Regional Administrator, in writing, of such diversion or by-pass.

10. Power Failures

In order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:

- a. Provide an alternative power source sufficient to operate facilities utilized by permittee to maintain compliance with the effluent limitations and conditions of this permit which provision shall be indicated in this permit by inclusion of a specific compliance date in each appropriate "Schedule of Compliance for Effluent Limitations".

- b. Upon the reduction, loss, or failure of one or more of the primary sources of power to facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit, the permittee shall halt, reduce or otherwise control production and/or all discharge in order to maintain compliance with the effluent limitations and conditions of this permit.

11. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed from or resulting from treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering navigable waters, or the entry of toxic or harmful contaminants thereof onto the groundwaters in concentrations or amounts detrimental to the groundwater resource.

12. Upset Noncompliance Notification

If a process "upset" (defined as an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee) has occurred, the permittee who wishes to establish the affirmative defense of upset shall notify the Chief of the Surface Water Quality Division by telephone within 24 hours of becoming aware of such conditions and within five (5) days, provide in writing, the following information:

- a. That an upset occurred and that the permittee can identify the specific cause(s) of the upset;
- b. That the permitted wastewater treatment facility was, at the time, being properly operated;
- c. That the permittee has specified and taken action on all responsible steps to minimize or correct any adverse impact in the environment resulting from noncompliance with his permit.

In any enforcement proceedings, the permittee is seeking to establish the occurrence of an upset, has the burden of proof.

- 13. Any requirement of this permit which is included under the unique terms of Michigan, the Water Resources Commission, Act 245, P.A. 1929, as amended, and rules promulgated thereunder, is not enforceable under the Federal Clean Water Act regulations.

B. RESPONSIBILITIES

1. Right of Entry

The permittee shall allow the Executive Secretary of the Michigan Water Resources Commission, the Regional Administrator and/or their authorized representatives, upon the presentation of credentials:

- a. To enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and
- b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any discharge of pollutants.

2. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharge emanate, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Michigan Water Resources Commission and the Regional Administrator.

3. Availability of Reports

Except for data determined to be confidential under Section 308 of the Act and Rule 2128 of the Water Resources Commission Rules, Part 21, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the State Water Pollution Control Agency and the Regional Administrator. As required by the Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Act and Sections 7 and 10 of the Michigan Act.

4. Permit Modification

After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

- a. Violation of any terms or conditions of this permit;
- b. Obtaining this permit by misrepresentation or failure to disclose fully, all relevant facts; or
- c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

5. Toxic Pollutants

Notwithstanding Part II, B-4 above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant is this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the permittee so notified.

6. Civil and Criminal Liability

Except as provided in permit conditions on "By-Passing" (Part II, A-9) and "Power Failures" (Part II, A-10), nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance, whether or not such noncompliance is due to factors beyond his control, such as accidents, equipment breakdowns, or labor disputes.

7. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee may be subject under Section 311 of the Act except as are exempted by federal regulations.

8. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Act.

9. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize violation of any Federal, State or local laws or regulations, nor does it obviate the necessity of obtaining such permits or approvals from other units of government as may be required by law.

10. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

11. Notice to Public Utilities (Miss Dig)

The issuance of this permit does not exempt the permittee from giving notice to public utilities and complying with each of the requirements of Act 53 of the Public Acts of 1974, being sections 460.701 to 460.718 of the Michigan Compiled Laws, when constructing facilities to meet the terms of this permit.

MIXING ZONE

Permit No. MI 0001457

Consumers Power Co.
Palisades Plant
27780 Blue Star Memorial Hwy.
Covert, MI

<u>Outfall Number</u>	<u>Receiving Stream</u>	<u>Discharge Location</u>
001	Lake Michigan	Section 5, T2S, R17W. Covert Township Van Buren County

For toxic and other pollutants, the volume of receiving water used in assuring that effluent limitations are sufficiently stringent to meet Water Quality Standards is the area in Lake Michigan equivalent to that of a circle having a radius of 1,000 feet centered over the point of discharge.

APPENDIX C

Appendix C

1985 Spill Events

April 9, 10, 1985

"A" Cooling Tower Acid Spill

As a result of bolt failure at a flange on the acid feed system, 332 gallons of 98% sulfuric acid were lost to the ground. The acid was partially neutralized and then disposed of as hazardous waste.

May 1, 1985

Neutralizer Tank Acid Spill

A failure of the connection of a piping system at the neutralizer tank resulted in the loss of 840 gallons of acid solution (equivalent to 11.8 pounds of H_2SO_4).

May 2, 1985

Neutralizer Tank Caustic Spill

Overfilling of the caustic storage tank resulted in caustic solution being pumped to the neutralizer tank. Because of the leak discussed above not being repaired, 413 pounds of caustic (1,875 gallons of solution) were lost to the ground. This spill and the above one were cleaned up by removal of the soils and disposal of as hazardous waste.

June 14, 1985

"A" Cooling Tower Acid Leak

The discharge piping at the acid feed pump developed a hole resulting in the loss of 250 gallons (3,800 pounds) of 98% acid to the ground. The soils contaminated by this event were disposed of as hazardous waste.

NOTE: Each of the above spills were reported to USEPA as required by CERCLA (superfund).

July 6, 1985

"A" Acid Spill

A failure in the PVC line from the acid feed pump to the cooling tower resulted in a loss of about 10 gallons of 98% sulfuric acid to the ground. This material was disposed of as hazardous waste.

July 31, 1985

T-10 Fuel Storage Tank Fill Basin Overflow

During an unexpected shutdown, "A" cooling tower overflowed and the resultant flood of water replaced the fuel oil contained in the T-10 tank fill basin. About 10 gallons of fuel oil were lost to Lake Michigan. No oil sheen was detected on the lake during the incident.

August 22, 24, 26, 29, 1985

September 8, 1985

Lubricating Oil Spill to Lake Michigan

During each of the above days, oil was observed in the cooling towers suction basin overflows, and the mixing basin. On the August 26, 29, and September 8, 1985, visible oil was observed in Lake Michigan. After the spill on September 8, the source was finally detected as the main lube oil coolers (earlier observation of this equipment indicated no leakage) the coolers were repaired and returned to service. These coolers were disabled and reinspected during the December-February Refueling Outage.

September 16, 1985

T-130 Overflow

During a valve operation, dilution water was backed up into the M-18 oil/water separator. The overflow of this tank filled T-130 waste oil storage tank causing the overflow from T-130. The vent for this tank is outside the building allowing for a loss of about five gallons of oil to the ground and pavement. The oil was cleaned up and disposed of and the vents on M-18 and T-130 modified to allow overflows to be contained.

September 19, 1985

"A" Cooling Tower Acid Spill

The acid dilution trough inside the cooling tower developed a leak and sprayed acid and water (pH 1.5) onto the ground. The spill solution was pumped back into the tower and the remainder was neutralized in place with lime (CaOH_2). A piece of Plexiglas was installed to prevent additional leakage and the trough was repaired during the December-February Refueling Outage.

October 28, 1985

"B" Cooling Tower Acid Spill

During fill of "B" cooling tower acid tank, about four gallons of 98% sulfuric acid were sprayed on the ground and absorbed by the sand. The sand was disposed of as hazardous waste and the line was repaired.

APPENDIX D

Appendix D

1985 NPDES Non-Compliances

DATE	OUTFALL	PARAMETER	NON-COMPLIANCE
January 10, 1985	00F	Oil and Grease	Exceeded 20 mg/l daily limit, actual value reported was 72.2 mg/l.
January 14, 1985	00F	Oil and Grease	Exceeded 20 mg/l daily limit, actual value reported was 56.1 mg/l.
January 21, 1985	00F	Oil and Grease	Exceeded 20 mg/l daily limit, actual value reported was 50.2 mg/l.
January 28, 1985	00F	Oil and Grease	Exceeded 20 mg/l daily limit, actual value reported was 60.0 mg/l.
January, 1985	00F	Oil and Grease	Exceeded 15 mg/l monthly average, actual monthly average was 42 mg/l.
February 4, 1985	00F	Oil and Grease	Exceeded 20 mg/l daily limit, actual value reported was 58.2 mg/l.
February 10, 1985	00F	Oil and Grease	Exceeded 20 mg/l daily limit, actual value reported was 24.8 mg/l.

NOTE: The outfall designation "00F" is as per the new NPDES Permit, the designation previously was "00G."

Appendix D

1985 NPDES Non-Compliances

DATE	OUTFALL	PARAMETER	NON-COMPLIANCE
February 11, 1985	00F	Oil and Grease	Exceeded 20 mg/l daily limit, actual value reported was 25.6 mg/l.
February, 1985	00F	Oil and Grease	Exceeded 15 mg/l monthly average actual monthly average was 27.3 mg/l.
April 15, 1985	00F	Oil and Grease	Exceeded 20 mg/l daily limit, actual value reported was 56.0 mg/l.
May 23, 1985	001	pH	Accidental release of neutralizers tank resulted in measured discharge pH of 5.5. About 5,000 gallons of neutralizer tank waste were released.
August 26, 1985*	001	Oil in Discharge	Small traces of oil in makeup basin carrying over to mixing basin and into Lake Michigan.
August 29, 1985*	001	Oil in Discharge	Small traces of oil in makeup basin carrying over to mixing basin and into Lake Michigan.

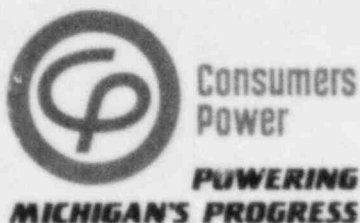
* See Appendix D Spills for Discussion

Appendix D

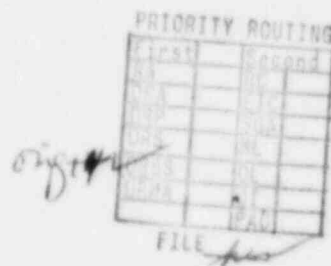
1985 NPDES Non-Compliances

DATE	OUTFALL	PARAMETER	NON-COMPLIANCE
September 8, 1985*	001	Oil in Discharge	Small traces of oil in makeup basin carrying over to mixing basin and into Lake Michigan.
September 21, 1985	00F	Oil and Grease	Exceeded 20 mg/l daily maximum, actual value was 34.2 mg/l.
October 21, 1985	00F	Oil and Grease	Exceeded 20 mg/l daily maximum, actual value was 26 mg/l.
October 28, 1985	001	Total Residual Chlorine	Exceeded daily maximum of 0.20 mg/l, actual value was 0.24 mg/l.
December 1, 1985	001	pH	During period when recording instruments are out for repair, sampling must be conducted every eight hours, however, this was not done from November 30, 1985 at 1630 hrs. until 0830 hrs on December 1, 1985.

* See Appendix D Spills for Discussion



General Offices: 1945 West Parnall Road, Jackson, MI 49201 • (517) 788-0550



April 18, 1986

James G Keppler, Administrator
Region III
US Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

DOCKET 50-255 - LICENSE DPR-20 - PALISADES PLANT -
1985 ANNUAL ENVIRONMENTAL OPERATING REPORT

Appendix B (Environmental Protection Plan) to Provisional Operating License No DPR-20 for the Palisades Plant requires Consumers Power Company to submit the Environmental Operating Report annually prior to May 1. The attached report covering the period from January 1 to December 31, 1985 fulfills the referenced report requirements.

Brian D Johnson
Staff Licensing Engineer

CC Director, Office of Nuclear Reactor Regulation
Director, Office of Inspection & Enforcement
NRC Resident Inspector - Palisades

Attachment

JE24
JE25
1/1

APR 21 1986