

ATTACHMENT

Consumers Power Company
Palisades Plant
Docket 50-255

1986 ANNUAL ENVIRONMENTAL OPERATING REPORT

January 1 - December 31, 1986

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Palisades Nuclear Plant

Annual Environmental Operating Report (Non-Radiological)

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, 1986.

The Plant came out of refueling on March 3, 1986 and during the period from that date until May 19, 1986 was on line for 1324.4 hours producing 841,244 megawatt hours of electricity. The Plant was shutdown for maintenance from May 19, 1986 until the end of the year.

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

2.0 ENVIRONMENTAL IMPACT EVALUATIONS

An evaluation was performed on the shoreline protection project in 1986. This project involved extensive use of rock fill material to reinforce the shoreline and protect Plant structures from adverse effects of the high Lake Michigan water level. It was determined that any effect on the near shoreline ecology would be transient and inconsequential in nature.

3.0 ADDITIONAL ACTIVITIES AUTHORIZED UNDER NPDES

The Plant received permission from Michigan Department of Natural Resources (MDNR) for the following additional activities without changing the language of the Plant NPDES permit:

3.1 Cooling Tower Chemical Additive

Starting with the next period of Plant operation, the remaining sulfuric acid in storage will be used up (7 days of operation required) and the addition of the acid (up to 85 gallons per hour) to the cooling towers will then be terminated. In its place, Calgon PCL-1 (a liquid formulation of hydroxyethylidene diphosphonic acid and a copolymer of sulfonic and acrylic acids) will be used at a rate of approximately 1 gallon per hour. This change should result in less maintenance, elimination of the spill potential associated with sulfuric acid, lower operating cost, improved employee safety and no measurable environmental impact on Lake Michigan.

3.2 Make-up Demineralizer Rinse Rerouting

The rinse water (except when regenerants are present) from the Plant make-up demineralizers is now routed directly to the discharge structure rather than to the neutralizer tank. This water is of higher quality than the lake water and presents no impact on the lake. The benefit received as a result of this change is improved operating efficiency and reduced spill potential from the neutralizer tank.

4.0 UNUSUAL ENVIRONMENTAL EVENTS

There were no unusual environmental events in 1986.

5.0 ENVIRONMENTAL MONITORING

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

No activities in this area for 1986.

5.2 Herbicide Application

No activities in this area for 1986.

6.0 NON-ROUTINE REPORTS

6.1 Spill Events

There were 5 reported spill events in 1986. These events are summarized in Appendix A.

6.2 NPDES Non-compliance

There were 10 reported NPDES Non-compliance in 1986, these are summarized in Appendix B.

Appendix A
Spill Events
1986

1. March 14, 1986

The Marathon vendor overfilled T-926 (heating boiler fuel oil tank). Vendor was ordered to deliver oil only to T-10 (where an operator awaited his arrival).

About 30 yards of sand were disposed of to clean up affected area. The inlet valve to this tank has since been locked closed to prevent recurrence of this type of event.

2. May 13, 1986

T-921 (neutralizer tank) overfilled during a regeneration of a demineralizer and leaked to ground because of through-wall deterioration of the overflow piping. The liquid was designated hazardous due to pH of about 2.

3. May 15, 1986

The event of May 13, 1986 was repeated.

4. July 24, 1986

The inspection manway on top of the Company tanker was left open while filling with mineral oil from the main transformer. Due to operator unfamiliarity with the size of the tank, excess amounts of oil was pumped to the tank and about five gallons was splashed onto the ground. This spill was immediately cleaned up and placed in a skid box awaiting disposal.

5. August 12, 1986

T-921 overfilled during regeneration of a demineralizer and overflowed out the manway, pH of tank contents was 1.7, pH of soil was 6-8.

NOTE: The change discussed in paragraph 3.2 of this report should eliminate future spills of the type that occurred on May 14 and 15 and on August 12, 1986.

NPDES Violations
1986

1. February 7, 1986

T-921 (Neutralizer tank) was unintentionally released prior to sampling due to its discharge valve being open during filling. The lake discharge pH limit was exceeded as a result of this event.

2. March 3, 1986
Thru
March 10, 1986

Oil leaks from the turbine bearing lift pumps resulted in excessive oil carried through M-18 oil/water separator and the T-41 turbine building drain tank. The oil and grease limit of 20 mg/l was exceeded.

The magnitude of this event resulted in exceedance of the monthly average also. (See Item 5 below.)

3. March 23, 1986

An unexplained exceedance of the oil and grease limit on T-41 occurred.

4. March 24, 1986

Due to a loss of P-45A and P-45B (turbine building sump pumps) for maintenance, the turbine sump was discharged directly to the mixing basin bypassing M-18 and T-41 oil removal systems.

5. Monthly average oil and grease for March in excess of 15 mg/l limit.

6. April 14, 1986

Excessive water in the condensate pump pit as a result of condensate pump P-2A packing failure resulted in bypassing of M-18 and T-41 by using a portable pump to assist the P-45 pumps.

7. May 14, 1986

M-18 was bypassed for scheduled cleaning resulting in exceedance oil and grease limits on T-41.

8. May 19, 1986

T-41 outfall exceeded the oil and grease limits due to excessive accumulation of dirt in M-18.

9. Monthly average oil and grease for May in excess of 15 mg/l limit.

NOTE: A new procedure and schedule for cleaning M-18 oil/water separator was initiated on 5/23/86. The average oil and grease value from that date until the end of 1986 was 1.4 mg/l as opposed to an average of 17.1 mg/l for the first 5 months of 1986.

10. June 1986

The suspended solids limit (monthly average) was exceeded on T-921 due to only one release occurring on the 3rd day of the month (that release was within the 100 mg/l daily maximum limit, but because the tank was removed from service for three weeks, no further releases took place, which resulted in exceedance of the 30 mg/l monthly limit).



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DOCKET 50-255 - LICENSE DPR-20 - PALISADES PLANT -
1986 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 by May 1. The attached report covering the period from January 1 to December 31, 1986 fulfills the referenced report requirements.

Brian D Johnson
Staff Licensing Engineer

CC Administrator, Region III, NRC
NRC Resident Inspector - Palisades

Attachment