

Indiana Michigan
Power Company
Cook Nuclear Plant
One Cook Place
Bridgman, MI 49106
616 465 5901



May 26, 1989

Donald C. Cook Nuclear Plant Units 1 and 2
Docket Nos. 50-315 and 50-316
License Nos. DPR-58 and DPR-74
National Pollutant Discharge Elimination
System (NPDES) Permit.

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Attn: A. B. Davis

Dear Mr. Davis:

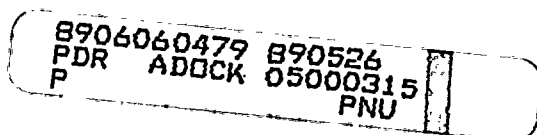
In accordance with Section 3.2 of Appendix B (Environmental Protection Plan) of the Donald C. Cook Nuclear Plant Unit Nos. 1 and 2 Facility Operating License, attached are copies of:

1. An application to the State of Michigan Department of Natural Resources (MDNR) for issuance of a new NPDES Permit allowing the discharge of treated groundwater generated as the result of a groundwater remediation project, and
2. Revised NPDES Permit No. MI 0005827, issued on May 5, 1989 by the MDNR, which deletes the requirement to monitor oil and grease concentrations in steam generator and heating boiler blowdown.

Respectfully,

A handwritten signature in dark ink, appearing to read 'W. G. Smith, Jr.'.

W. G. Smith, Jr.
Plant Manager



Cool
11

USNRC

May 26, 1989

Page 2

c: D. H. Williams, Jr.
M. P. Alexich
P. A. Barrett
J. E. Borggren
NRC Resident Inspector
R. C. Callen
G. Charnoff, Esq.
Dottie Sherman, ANI Library
D. Hahn
INPO
PNSRC
S. J. Brewer/B. P. Lauzau
R. F. Kroeger
J. T. Wojcik/D. M. Fitzgerald



STATE OF MICHIGAN



NATURAL RESOURCES COMMISSION

THOMAS J. ANDERSON
MARLENE J. FLUHARTY
GORDON E. GUYER
KERRY KAMMER
O. STEWART MYERS
DAVID D. OLSON
RAYMOND POUPORE

JAMES J. BLANCHARD, Governor
DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING
P.O. BOX 30028
LANSING, MI 48909

DAVID F. HALES, Director

May 5, 1989

RECEIVED

MAY 8 1989

CERTIFIED MAIL

Indiana Michigan Power Company
One Summit Square
P.O. Box 60
Fort Wayne, Indiana 46801

ENVIRONMENT
SECTION

Gentlemen:

SUBJECT: NPDES Permit No. MI0005827
Cook Nuclear Plant
Bridgman, Michigan

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

It contains the requirements necessary for you to comply with state and federal water pollution control laws.

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 may appear in a published quarterly noncompliance report made available to agencies and the public.

Your monitoring and reporting responsibilities must be complied with in accordance with 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 sent to the following address:

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

Indiana Michigan Power Company
Page 2
May 5, 1989

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

Mr. Steve Eldredge, Planning and Special Programs Section
Mr. Fred Morley - Plainwell District (2)
Mr. Paul Blakeslee, Regional Supervisor, Region III
Compliance and Enforcement, SWQD
208 Agency - Southwest Michigan Regional Planning Commission
Data Entry, SWQD
Point Source Studies (Grand Rapids District Office)

PERMIT No. MI0005827

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

In compliance with the provisions 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"),

Indiana Michigan Power Company
One Summit Square, P.O. Box 60
Fort Wayne, Indiana 46801

is authorized to discharge from a facility located at

Cook Nuclear Plant
One Cook Place
Bridgman, Michigan 49106

designated as IN MI Power Co-Cook-Plt

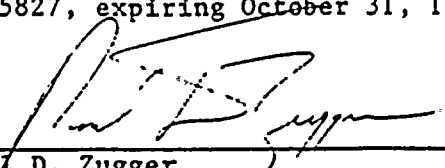
to the receiving water named Lake Michigan in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I and II hereof.

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 term 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 August 31, 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 submitted on May 4, 1979, as amended, 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 19th day of September, 1985, and modified this 2nd day of April 1987, and modified this 20th day of April, 1989, by the Michigan Water Resources Commission superseding NPDES Permit No. MI0005827, expiring October 31, 1979.


Paul D. Zugger
Executive Secretary

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. Final Effluent Limitations - Outfalls 001, 002 & 003 (noncontact cooling water and low volume wastes)

During the period beginning on the effective date of this permit and lasting until permit expiration, the permittee is authorized to discharge a maximum of three billion two hundred ninety eight million five hundred eighty three thousand two hundred (3,298,583,200) gallons per day* of noncontact cooling water consisting of condenser cooling water and low volume wastes consisting of steam generator blowdown, heating boiler blowdown and filter backwash through outfalls 001, 002 and 003 to Lake Michigan. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	lbs/day		Other Limitations		Measurement	Sample
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Frequency	Type
Flow (MGD)					Daily	Report Total Daily Flow
Temperature (°F)						
Intake					Daily	3 instantaneous readings equally
Discharge**					Daily	spaced over a 24-hr period
Heat Addition (BTU/hr)				15.5×10^9	Daily	Calculation
Total Residual Chlorine (TRC)***				0.1 mg/l	5 x weekly	3 grab samples equally spaced during discharge of chlorine
Chlorine Discharge Time				30 min./day	5 x weekly	Report discharge time
Outfall Observation****					Daily	Visual

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

** The discharge, after mixing, shall not increase the temperature of Lake Michigan more than 3°F above the existing natural temperature or above the following monthly maximum temperatures:

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
45	45	45	55	60	70	80	80	80	65	60	50

***The permittee may use dechlorination techniques to achieve the applicable limitations using sodium thiosulfate or sodium sulfite or other dechlorinating agents approved by the Chief of the Surface Water Quality Division as dechlorination agents. The quantity of reagent used shall be limited to 1.5 times the stoichiometric amount needed for dechlorination of applied chlorine. The permittee shall report monthly the quantity of each dechlorination reagent used per day.

[illegible]

Part I-A-1. (continued)

****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.

a. The term noncontact cooling water shall mean water used for cooling which does not come into direct contact with any raw material, intermediate product, waste product, or finished product.

b. The pH shall not be less than 6.0 nor greater than 9.0. The pH shall be monitored as follows: weekly; grab sample.

c. 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.

d. Samples, measurements and/or observations taken in compliance with the monitoring requirements above shall be taken as follows: intake - in the intake forebay; discharge - in Unit 1 and Unit 2 discharge bays for Outfalls 001 and 002, respectively. The monitoring requirements specified above do not apply for Outfall 003 since this discharge will be regulated by Outfalls 001 and 002.

e. In the event the permittee shall require the discharge of water treatment additives in addition to any previously approved by the Chief of the Surface Water Quality Division, 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 - Outfalls 00A and 00B (steam generator blowdown)

During the period beginning on the effective date of this permit and lasting until permit expiration, the permittee is authorized to discharge a maximum of eight hundred sixty-four thousand (864,000) gallons per day* of low volume wastes consisting of steam generator blowdown from each of the internal outfalls 00A and 00B through outfalls 001, 002 and 003 to Lake Michigan. Such discharge shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>	
	<u>kg/day (lbs/day)</u>		<u>Other Limitations</u>		<u>Measurement</u>	<u>Sample</u>
	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Frequency</u>	<u>Type</u>
Flow (MGD)					Per Occurrence	Report total daily flow
Total Suspended Solids (mg/l)			30	100	Weekly	Grab

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

a. Samples, measurements and/or observations taken in compliance with the monitoring requirements above shall be taken on both outfalls 00A and 00B prior to mixing with noncontact cooling water in the intake forebay (see figure 1 on page 7 of 12).

b. In the event the permittee shall require the discharge of water treatment additives, the permittee shall notify the Chief of the Surface Water Quality Division. The permittee shall obtain written approval from the Chief of the Surface Water Quality Division to discharge such additives at a specified level. The permit may be modified in accordance with the requirements of Part II, Section 8-4 if a constituent of the additive or additives requires limiting.

3. Final Effluent Limitations - Outfall 00C (heating boiler blowdown)

During the period beginning on the effective date of this permit and lasting until permit expiration, the permittee is authorized to discharge a maximum of nineteen thousand (19,000) gallons per day* of low volume wastes consisting of heating boiler blowdown from the internal outfall 00C through outfalls 001, 002 and 003 to Lake Michigan. Such discharge shall be limited and monitored by the permittee as specified below:

Effluent Characteristic	Discharge Limitations				Monitoring Requirements	
	kg/day (lbs/day)		Other Limitations		Measurement	Sample
	Monthly Average	Daily Maximum	Monthly Average	Daily Maximum	Frequency	Type
Flow (MGD)					Per Occurrence	Report total daily flow
Total Suspended Solids (mg/l)			30	100	Per Occurrence**	Grab

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

**Total Suspended Solids are to be monitored once per occurrence or weekly if the heating boiler is operated continuously for periods greater than one week.

a. Samples, measurements and/or observations taken in compliance with the monitoring requirements above shall be taken after the heating boilers and prior to the intake forebay (see figure 1 on page 7 of 12).

b. In the event the permittee shall require the discharge of water treatment additives, the permittee shall notify the Chief of the Surface Water Quality Division. The permittee shall obtain written approval from the Chief of the Surface Water Quality Division to discharge such additives at a specified level. The permit may be modified in accordance with the requirements of Part II, Section 6-4 if a constituent of the additive or additives requires limiting.

4. Final Effluent Limitations - Outfall OOF (filter backwash)

During the period beginning on the effective date of this permit and lasting until permit expiration, the permittee is authorized to discharge a maximum of five hundred eighty-three thousand two hundred (583,200) gallons per day* of low volume wastes consisting of filter backwash from internal outfall OOF through outfalls 001, 002, and 003 to Lake Michigan. Such discharge shall be limited and monitored 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		
Flow (MGD)					Daily	Report total daily flow
Total Suspended Solids (mg/l)			30	100	Weekly	Grab
Oil and Grease (mg/l)**				15	Monthly	Grab

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

**After one year of monitoring for oil and grease, the permittee may attempt to demonstrate that further monitoring and limits for oil and grease for internal OOF is no longer necessary. Upon successful demonstration by the permittee, this monitoring may be deleted from the permit. Any submittals shall be to the Chief of the Surface Water Quality Division.

a. Samples, measurements and observations taken in compliance with the monitoring requirements above shall be taken prior to mixing with noncontact cooling water in intake forebay (see figure 1 on page 7 of 12):

b. In the event the permittee shall require the discharge of water treatment additives in addition to any previously approved by the Chief of the Surface Water Quality Division, 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.

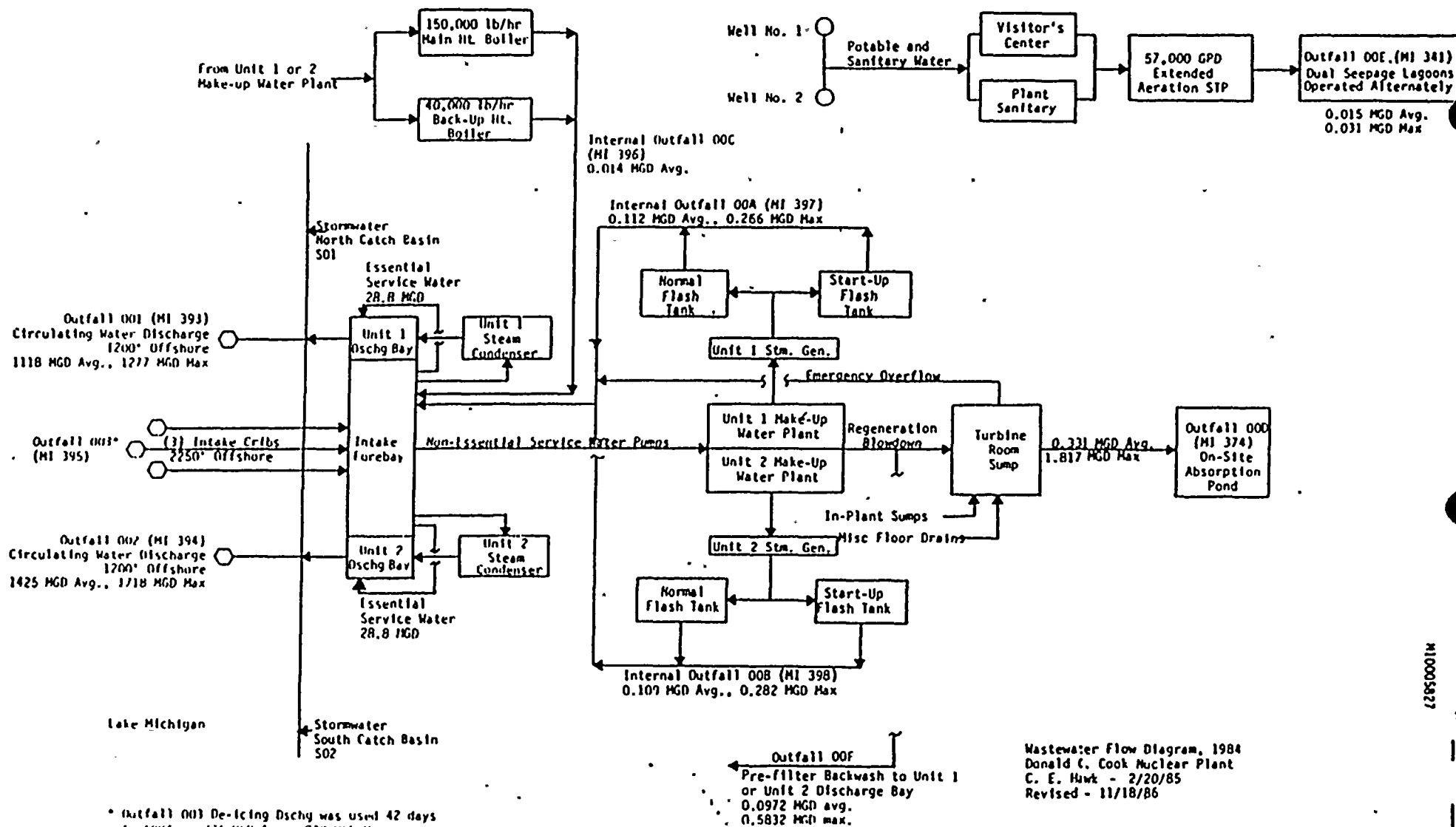


FIGURE 1

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4. 5. 6.

7. 8. 9.

10. 11. 12.

13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.

101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200.

5. Final Effluent Limitations - Intake Screen Backwash

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee is authorized to discharge an unspecified amount of intake screen backwash to Lake Michigan. The Company shall collect and remove debris accumulated on the intake trash bars and dispose of such material on land in an appropriate manner.

6. 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 shall not discharge any polychlorinated biphenyls to receiving waters of the State of Michigan as a result of plant operations.

7. Cooling Water Intakes

The permittee shall submit to the Chief of the Surface Water Quality Division a detailed study plan and time schedule for conducting environmental monitoring to determine the effects of the cooling water intake and obtain his approval thereof on or before NA--completed. The studies shall be adequate to demonstrate if the existing cooling water intake design, location, construction, and capacity reflects the best technology available for minimizing adverse environmental impact in accordance with Section 316(b), Public Law 92-500. The study shall be completed and the report thereon submitted on or before NA.

If, on the basis of the study report and applicable standards established pursuant to Section 316(b) of Public Law 92-500, the Commission determines that the intake structures do not reflect the best technology available for minimizing adverse environmental impact, it will so notify the company, specifying the reason(s) for its determination, and the company shall submit to the Chief of the Surface Water Quality Division, within 90 days of such notification, its plan and construction time schedule for minimizing the environmental impact of the intake structure.

8. Special Condition

The Nuclear Regulatory Commission is responsible for regulating discharges of radioactive materials.

9. 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 condition or more stringent than any effluent limitation in the permit; or
- b. control(s) any pollutant not limited in the permit.

10. 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 a change in facility operation, maintenance, or construction has resulted or will 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 Vol. 48, No. 64, April 1, 1983, Part 122.21, Appendix D, pp. 14176-14177 which were not acknowledged in the application** or listed in the application at less than detectable levels.
2. Detectable levels* of any other chemical not listed in the application or listed at less than detection, for which the application specifically requested information.
3. Any chemical 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 received May 4, 1979 and updated April 26, 1985.



PART I

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 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).

☐NA 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 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 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.

☐A 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 III. The MOR's shall be postmarked no later than the 10th day of the month following each completed report period.

☐NA 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.

☐A 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 outfalls 001, 002.

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

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100

100

100

100

100-100000

- 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 being 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, cleanup 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 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 the 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 in 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.

PERMIT CONDITIONS

PART III

A. GROUNDWATER DISCHARGE AUTHORIZATION

The permittee is authorized to discharge from its wastewater treatment facility to the groundwaters of the state in accordance with the conditions below. This authorization shall continue until the Michigan Water Resources Commission makes its final determination on a state groundwater discharge permit.

B. GROUNDWATER DISCHARGE REQUIREMENTS

During the period beginning on the date of issuance of this permit and lasting until the expiration date of this permit, the permittee is authorized to discharge process wastes and sanitary wastes to the groundwater. Such discharges shall be monitored by the permittee as specified below:

Process wastes shall be disposed of into the ground in such a manner and by means of such facilities and at such location that they shall not injuriously affect public health, welfare, or commercial, industrial, domestic, agricultural, recreational, or other uses of the underground waters.

Monitoring requirements for boiler water treatment systems process water (water softener, clarifiers, make-up, demineralizers) and boiler cleaning water prior to discharge into the ground.

| <u>PARAMETER TO BE MEASURED</u> | <u>FREQUENCY</u> | <u>TYPE OF SAMPLE</u> |
|---------------------------------|--|------------------------|
| Flow | Continuous | |
| pH | Continuous | Daily maximum, minimum |
| Cadmium | At times of boiler cleaning water discharge | Grab |
| Oil & Grease | Weekly | Grab |
| Sulfate (SO ₄) | At all times when regeneration of ion exchange resins occurs | 24-Hr. Composite |
| Chloride (CL) | Weekly | 24-Hr. Composite |
| Total Phosphorus | Weekly | 24-Hr. Composite |
| Chemical Oxygen Demand | Weekly | 24-Hr. Composite |
| Total Dissolved Solids | At all times when regeneration of ion exchange resins occurs | 24-Hr. Composite |

Monitoring requirements for sanitary wastewaters prior to discharge into the ground:

| <u>PARAMETER TO BE MEASURED</u> | <u>FREQUENCY</u> | <u>REPORT</u> |
|--|--|---|
| Flow | Continuous | |
| State which seepage area is being utilized | List when seepage areas are alternated | List beginning and ending date and time of use of each seepage area |

Part III-B (continued)

Monitoring requirements for groundwater collected in monitoring wells:

| <u>PARAMETER TO BE MEASURED</u> | <u>FREQUENCY</u> | <u>TYPE OF SAMPLE</u> |
|---------------------------------|------------------|-----------------------------|
| Record static water elevation | Quarterly | Reading at time of sampling |
| pH | Quarterly | Grab |
| Total Chromium (Cr) | Quarterly | Grab |
| Copper (Cu) | Quarterly | Grab |
| Sulfate (SO ₄) | Quarterly | Grab |
| Chloride (Cl) | Quarterly | Grab |
| Hardness | Quarterly | Grab |
| Nitrate-Nitrogen as N | Quarterly | Grab |
| Sodium (Na) | Quarterly | Grab |
| Polychlorinated Biphenyls | Quarterly | Grab |
| Chemical Oxygen Demand | Quarterly | Grab |
| Boron (B) | Quarterly | Grab |
| Total Phosphorus (P) | Quarterly | Grab |
| Total Dissolved Solids | Quarterly | Grab |
| Cadmium | Quarterly | Grab |
| Oil & Grease | Quarterly | Grab |

Permit No. MI 0005827

MIXING ZONE

Facility: Indiana & Michigan Electric Company

Outfall Number

001, 002, 003

Receiving Water

Lake Michigan

Discharge Location

Berrien County, Lake Township
(Town 6S, Range 19W)
Sections 5, 6, 7 & 8

The mixing zone for purposes of evaluating compliance with the State Water Quality Standards is defined as an area of Lake Michigan equivalent to that of a circle with a radius of 2811 feet (570 acres) centered at the point of discharge.

Indiana Michigan
Power Company
One Summit Square
P.O. Box 60
Fort Wayne, IN 46801
219 425 2111



Mr. William Shaw
Michigan Department of Natural Resources
Knapps Centre
P. O. Box 30028
Lansing, MI 48909

May 5, 1989

Dear Mr. Shaw:

Re: Donald C. Cook Nuclear Plant
Groundwater Remediation Project

Per your telephone conversation of May 2, 1989 with Diane Fitzgerald and Christopher Hawk, Indiana Michigan Power Company is filing an NPDES Permit application specifically for a surface water discharge from a groundwater remediation project at Donald C. Cook Nuclear Plant.

Site work will begin the week of May 8, 1989 to locate, construct, and develop a recovery system to remediate a spill of No. 2 fuel oil which occurred in 1976 and was reported to the Michigan DNR at that time. Analytical data submitted with this application is based upon a groundwater sample taken from a monitoring well at the spill site. Since the purpose of this work is to remediate a spill of an old fuel oil product, analyses are based upon the total petroleum hydrocarbons present in the groundwater. (We do not expect there to be detectable amounts of BTX compounds.)

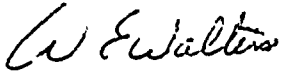
Attached to this letter is a telecopy of a product data sheet and MSDS for Clear Flocc 232, which would be used only if necessary if an emulsion of oil and water forms during the recovery process. This would prolong the life of the carbon filter and ensure compliance with effluent quality requirements. We will provide a cleaner copy when one is received through the mail.

The recovery system is expected to be operable the week of July 3, 1989, and discharge from the recovery system must begin at that time for us to be able to operate the system long enough this season to evaluate its effectiveness. We understand that by submitting this application for a groundwater remediation discharge to you before May 8, 1989, we should be able to receive authorization for this discharge by July. Your effort to help us accomplish this work is greatly appreciated.

May 5, 1989
Mr. William Shaw
Page 2

Should you have any questions regarding this permit application, please call Christopher Hawk at (614)223-1253.

Very truly yours,



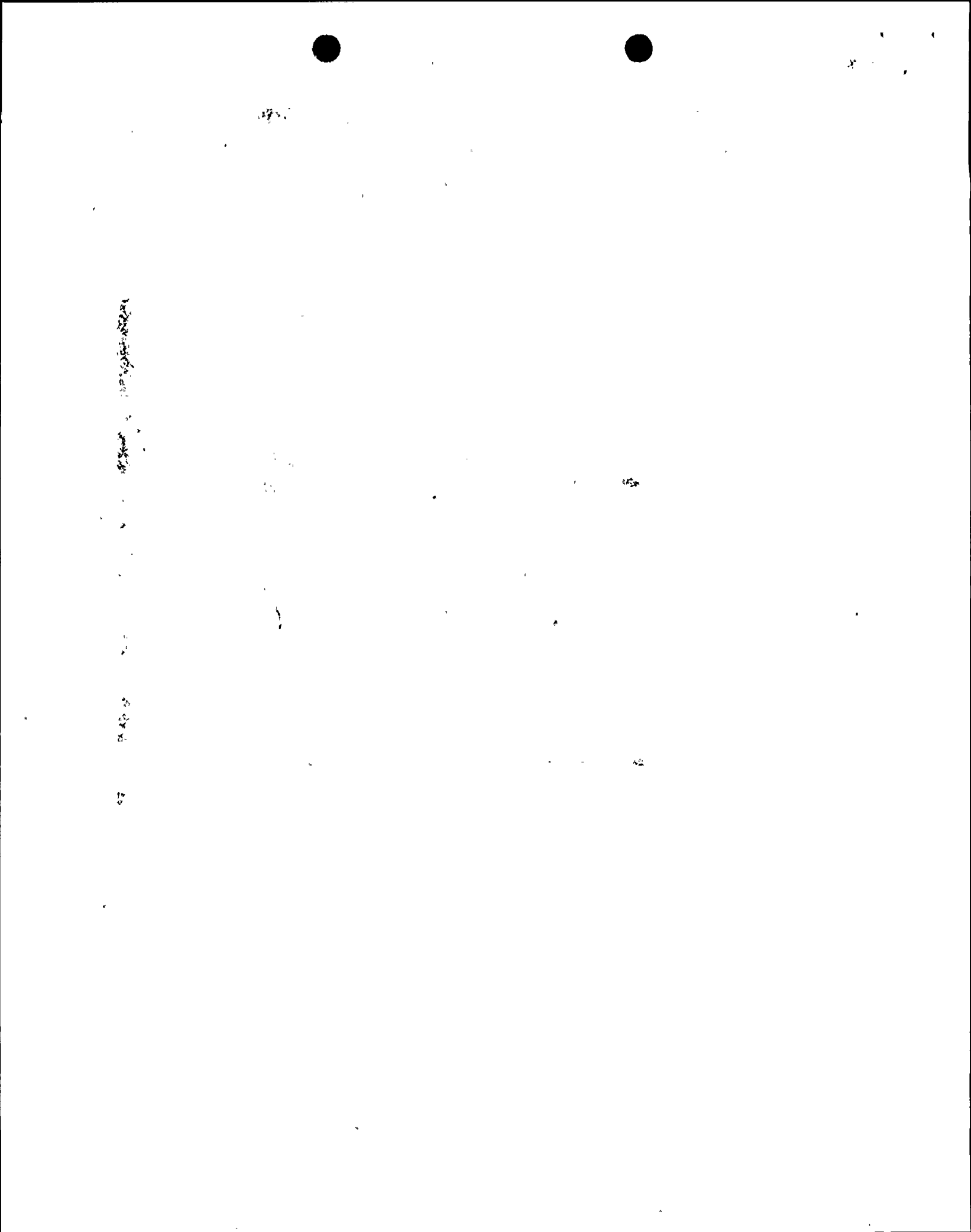
W. E. Walters
Executive Assistant

WEW/RZ
Attachments

cc: J. M. Bantjes, MDNR Surface Water Qual., Plainwell - w/o att.
J. C. Woodruff, MDNR Environ. Resp. Div., Plainwell - w/o att.

May 5, 1989
Mr. William Shaw
Page 3

bc: D. L. Baker - w/ att.
M. W. Evarts - w/o att.
D. M. Fitzgerald - w/ att.
C. E. Hawk - w/ att.
J. T. Massey-Norton - w/o att.
W. G. Smith, Jr./L. S. Gibson - w/o att.



Clearwater, Inc.

ENGINEERED CHEMISTRY

Technical Data

Clear•Floc 232 Cationic Coagulant

DESCRIPTION

Clearwater, Inc. CLEAR•FLOC 232 is a high-charge-density cationic coagulant. It is produced as a viscous aqueous solution which can be quickly diluted for feeding. CLEAR•FLOC 232 has been proven effective in various liquid/solids separation processes common in municipal and industrial waste treatment. Some of these include filtration, sedimentation, flotation and centrifugation. CLEAR•FLOC 232 is particularly effective in removing phosphates from plant effluents, and for treating oily wastewaters typical of refineries, steel mills, food processing plants and municipal wastewater plants.

TYPICAL PROPERTIES

Appearance.....Clear viscous liquid
Specific Gravity.....1.28
Viscosity @ 75°F.....< 1,000 cps
pH (as supplied).....2.2
Flash Point.....200°F
Freezing Point.....11°F
Solubility.....Soluble in water in all proportions
Weight/Gallon.....10.68 lbs.

ADVANTAGES

- Total treatment possible with single product
- Effective on low solids waters
- Effective for removing color
- Effective for removing phosphorous
- Effective on oily wastewaters
- Will reduce consumption of inorganic coagulants
- Will reduce consumption of pH adjusting chemicals

DOSAGE & FEEDING

CLEAR•FLOC 232 should be looked at over a broad dosage range.. Compared to typical polymer dosages, the dosage will generally be higher. Where 1-2 ppm of a polymer treatment would be expected to be adequate, a dose of 5-10 ppm may be optimal.

Generally, CLEAR•FLOC 232 will perform best in the pH range of 6-8.

PACKAGING

CLEAR•FLOC 232 is available in nonreturnable plastic drums or in bulk.

EQUIPMENT

Because CLEAR•FLOC 232 is a non-viscous and easy to feed liquid, it may be fed neat through a dilution eductor and static mixer.

CLEAR•FLOC 232 is corrosive to steel; all feed and delivery equipment should be made of plastic or stainless steel.

STORAGE

Store CLEAR•FLOC 232 in a heated warehouse or in a heat-traced and insulated bulk tank. CLEAR•FLOC 232 is freeze-thaw stable; however, stratification may occur upon freezing, and the product must be mixed thoroughly before use. CLEAR•FLOC 232 should be stored out of direct sunlight at temperatures between 40°F and 90°F. CLEAR•FLOC 232 is corrosive to steel; bulk storage dilution tanks and feed lines should be constructed of FRP.

SAFETY

Information concerning human and environmental exposure may be reviewed on the Material Safety Data Sheet and label for this product.

Clearwater, Inc.

ENGINEERED CHEMISTRY

Clearwater, Inc. • 601 Parkway View Drive • Parkway West Industrial Park
Pittsburgh, PA 15205 • 412-788-8181 • FAX 412 788-4066

Clearfloc 232 Material Safety Data Sheet

Product Information

Company Name: Clearwater, Inc.
Address: 601 Parkway View Dr., Pittsburgh, PA 15205
Trade Name: Clearwater Clearfloc 232
Emergency Phone Number (412-788-8181)
Created 9/22/86 by KWS
Name and/or family or description: Liquid Cationic Flocculant
The product is classified as: () Not Hazardous (X) Hazardous
NFPA: Health Hazard-1-Normal Material, Flammability-0-Non-flammable; Reactivity-1-Stable
CAS #: N/A
Proper Shipping Name: Compounds, Water Clarifying, No Medication or Perfume, NOI, Liquid
U.S. DOT Hazard Name: None
U.S. DOT ID No: UN 1760
U.S. DOT Hazard Class: Corrosive
IMO Classification: None
RCRA Hazard Class If Discarded: Corrosive
BPA Priority Pollutants: None

Hazardous Ingredients

Aluminum Sulfate, 50%

Physical Data

Boiling Point, °C >100
Solubility in Water @ 25°C Complete
Vapor Pressure, mm Hg @ 25°C Similar to Water
Vapor Density, (air = 1) Similar to Water
pH 2.0 - 3.0
Volatiles, %, by volume 57
Specific Gravity 1.17
Appearance clear to pale yellow, viscous liquid
Odor mild chemical

Fire and Explosion Hazard Data

Flash Point: Aqueous Solution - Clearfloc 232 is not flammable or combustible
Flammable Limits in Air, % by volume: Unknown, Lower: Not Determined
Upper: Not Determined
Extinguishing Media: Clearfloc 232 is not flammable or combustible
Special Fire Fighting Procedures: None
Unusual Fire and Explosion Hazards: If flocculant is spread on floor, avoid water, it will cause slippery surfaces

Health Hazard Data

Threshold Limit Value: Not determined by ACGIH or OSHA
Effects of overexposure:

Inhalation: Inhalation of alum mist may irritate respiratory tract.

Ingestion: May irritate gastrointestinal tract. Concentrated solutions may cause burns to the digestive tract. LD 50 (mouse); 980 mg (Al)/kg.
Recorded Human fatal dose of 30 grams

Skin: May cause skin irritation.

Eyes: May strongly irritate or burn eyes.

TLV in air: 2 mg(Al)/cu.m. (ACGIH)

Emergency and First Aid Procedures: Flush eyes with copious amounts of water for a minimum of 15 minutes. Wash contacted skin areas with soap and water. If irritation develops, consult a physician. Soaked clothing should be changed immediately.

Reactivity Data

Stability: Stable (X) Unstable ()

Conditions To Avoid: Not applicable

Incompatibilities: (Materials to Avoid) Strong oxidizers and reducers. Alkalies.

Hazardous Decomposition Products: Unknown

Hazardous Polymerization: May occur () Will not occur (X)

Conditions to Avoid: Not Applicable

Spill, Leak and Disposal Procedures

Action to take for spills: (Use appropriate Safety Equipment) Use absorbant then shovel or scoop up. Wash area with suitable detergent and water and thoroughly rinse.

Disposal Methods: All local, state and federal regulations concerning health and pollution should be reviewed to determine approved disposal procedures EPA hazardous material if spilled reportable quantity 36,000 lbs.



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Ventilation:

1. Local Exhaust: Not Required
2. Mechanical (general): Not Required
3. Respiratory (specify type): Not Required

Protective Clothing: Clean, body-covering clothing. In addition, rubber gloves, boots, apron depending upon the extent and severity of exposure likely, as required by your company

Eye Protection: Chemical Workers Goggles Recommended

Other Protective Equipment: Eye fountain and safety shower in work area.

| |
|--|
| Precautions to be Taken in Handling and Storage |
|--|

Additional Information: Flocculants are very slippery when spilled. Store above 0°F. Keep containers closed

Please Read: This information is believed to be correct; however, Clearwater, Inc. makes no warranty with respect hereto and disclaims all liability from reliance thereon.

SECTION 1

EPA I.D. NUMBER

M I D O 9 8 6 4 7 6 2 1

PERMIT
NUMBERSEE INSTRUCTIONS
ON REVERSE SIDE

APPLICATION FOR DISCHARGE PERMIT IS:

MODIFICATION

EXISTING

NEW

INCREASED USE

REISSUANCE

ITEM
1PHYSICAL
LOCATION
ADDRESS
AND
INFORMATION

| | | | |
|--|--|---|--|
| A. PARENT COMPANY/DEPT./OWNER | | I N D I A N A M I C H I G A N P O W E R C O | |
| B. DIV./BUREAU | | N I A | |
| C. PLANT OR FACILITY | | C O O K I N U C L E A R P L T | |
| D. TYPE OF FACILITY | | S I T I E L E C T R I C I G E N | |
| E. STANDARD INDUSTRIAL CLASSIFICATION
(REFER TO TABLE II) | | 4 9 1 1 | |
| F. STREET NUMBER | | G. STREET NAME | |
| O N E | | C O O K I P L A C E | |
| H. CITY NAME | | I. ZIP CODE | |
| B I R I D G I M A N I | | M I 4 9 1 1 0 6 | |
| J. TOWNSHIP | | K. COUNTY
(REFER TO TABLE I) | |
| L A K E | | B E R R I E N C O. NUMBER 1 1 | |
| L. NAME OF AUTHORIZED CONTACT PERSON | | M. TITLE | |
| D O N A L D L B A K E R | | E N V A F F A I R S D I R | |
| N. TELEPHONE NUMBER | | O. ADDRESS (IF DIFFERENT FROM ABOVE) | |
| 2 1 9 4 2 5 2 1 1 8 | | P O B O X 6 0 | |
| P. CITY NAME | | Q. STATE | |
| F I T W I A V I N I E | | I N | |
| R. ZIP CODE | | 4 6 8 1 0 1 | |
| S. TYPE OF TREATMENT FACILITY
(REFER TO TABLE II) | | T. PROGRAM FOR EFFECTIVE RESIDUALS MANAGEMENT
DATE SUBMITTED | |
| 1 1 2 1 2 1 2 | | YES NO X N.A. DATE IMPLEMENTED | |
| U. BACK-UP POWER SOURCE | | V. POLLUTION INCIDENT PREVENTION PLAN
DATE SUBMITTED | |
| YES NO X N.A. | | 6/12/80 | |
| X YES NO N.A. DATE IMPLEMENTED | | 6/82 | |
| W. NUMBER OF EMPLOYEES | | 16 1 1 1 | |
| X. TYPE OF DISCHARGE | | Y. DO YOU HAVE A CERTIFIED OPERATOR? | |
| GROUNDWATER | | X YES NO | |
| BOTH | | O P E R A T O R S N A M E D I A N E M F I T Z G E R A I D # | |
| SURFACE WATER | | 3 0 9 7 0 4 8 0 2 | |
| | | F A C I L I T Y # 1 1 1 0 0 5 4 C E R T I F I C A T I O N # W 1 0 1 0 2 1 8 1 6 1 3 | |

ITEM
2MAILING
ADDRESS
OF
APPLICANT

| | | | |
|--------------------------------------|--|---|--|
| A. NAME | | R I C H A R D I C M E N G I E | |
| B. NAME | | I N D I A N A M I C H I G A N P O W E R C O | |
| C. STREET ADDRESS OR POST OFFICE BOX | | P O B O X 6 0 | |
| D. CITY NAME | | E. STATE | |
| F O R T W A Y N E | | I N | |
| F. ZIP CODE | | 4 6 8 1 0 1 | |

REQUIRED SIGNATURE

I, the applicant, certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

SIGNATURE OF APPLICANT

SIGNATURE:

R. C. Menge

DATE:

5/5/89

NAME:

R. C. Menge

TITLE:

Sr. Vice Pres.

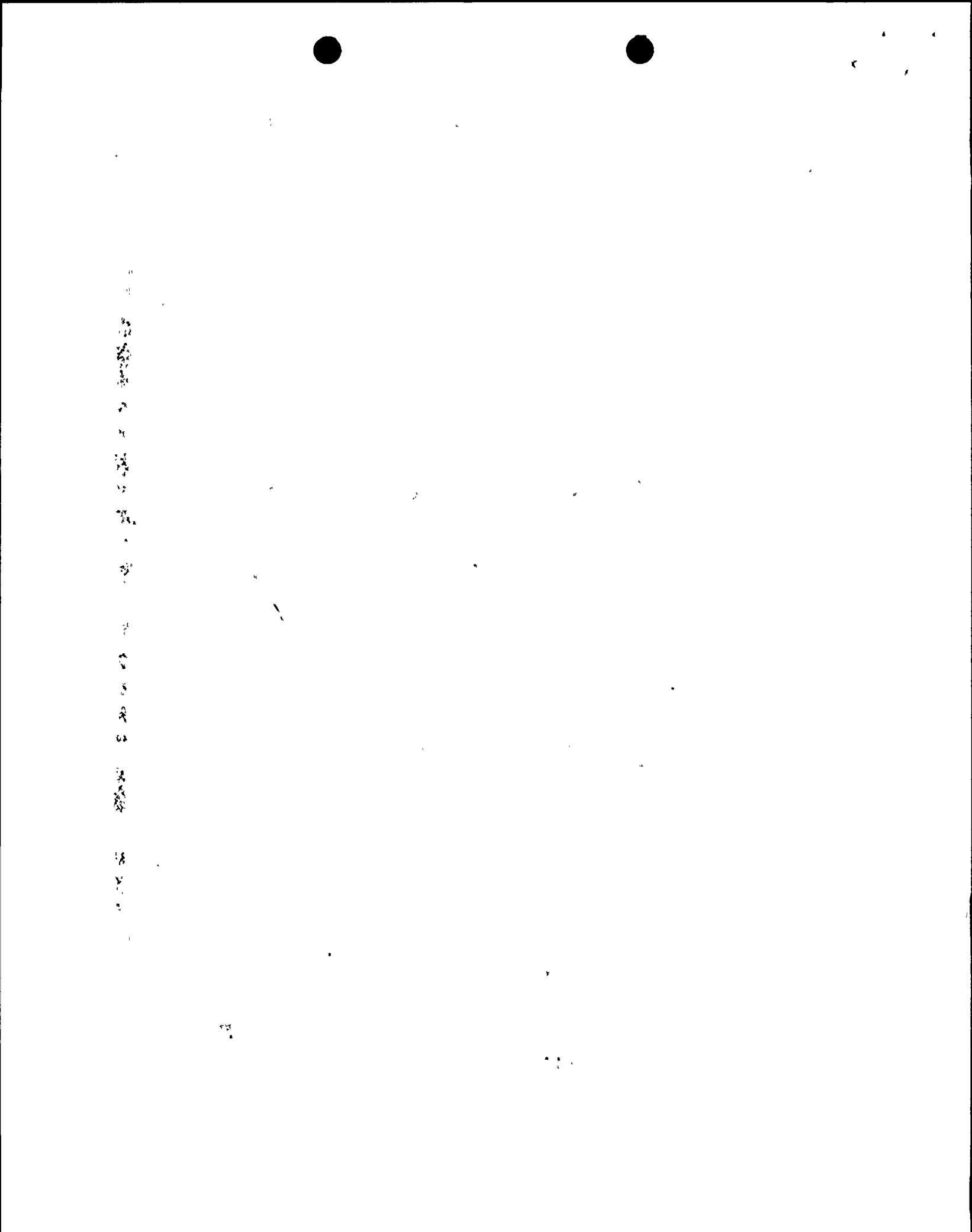
SIGNATURE OF LOCAL GOVERNMENTAL REPRESENTATIVE (SEE NOTE ON REVERSE SIDE)

SIGNATURE:

DATE:

NAME:

TITLE:



SECTION 1

PERMIT
NUMBER

SEE INSTRUCTIONS
ON REVERSE SIDE

ITEM 3

SOURCE
OF
WATER
SUPPLY

A. MUNICIPAL

NAME

QUANTITY (MAX.)

B. SURFACE WATER INTAKE

NAME OF WATERWAY

QUANTITY (MAX.)

C. PRIVATE WELL

QUANTITY (MAX.)

D. OTHER

SPECIFY

QUANTITY (MAX.)

G R N W T R I R E C O V E R Y I W E L L

2 1 6 1 0 1 0 0 GALLONS/DAY

2 1 6 1 0 1 0 0 GALLONS/DAY

GALLONS/DAY

GALLONS/DAY

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GALLONS/DAY

ITEM 4

FACILITY
WATER
USAGE

A. PROCESS WATER (INCLUDING CONTACT
COOLING WATER)

QUANTITY (MAX.)

B. NONCONTACT COOLING WATER

QUANTITY (MAX.)

C. SANITARY WATER

QUANTITY (MAX.)

D. OTHER

SPECIFY

QUANTITY (MAX.)

ITEM 5

CRITICAL
MATERIALS
&
PRIORITY
POLLUTANTS
USED
•
STORED
•
PRODUCED

REFER
TO
TABLES
IV & V

UNITS CODE

- 1 POUNDS
- 2 GALLONS
- 3 CUBIC
YARDS
- 4 TONS

MATERIAL
1

NAME OF SUBSTANCE

PARAMETER NUMBER

QUANTITY

NOT APPLICABLE

MATERIAL
2

NAME OF SUBSTANCE

PARAMETER NUMBER

QUANTITY

UNITS
/YEAR

UNITS
/YEAR

MATERIAL
3

NAME OF SUBSTANCE

PARAMETER NUMBER

QUANTITY

UNITS
/YEAR

MATERIAL
4

NAME OF SUBSTANCE

PARAMETER NUMBER

QUANTITY

UNITS
/YEAR

MATERIAL
5

NAME OF SUBSTANCE

PARAMETER NUMBER

QUANTITY

UNITS
/YEAR

MATERIAL
6

NAME OF SUBSTANCE

PARAMETER NUMBER

QUANTITY

UNITS
/YEAR

MATERIAL
7

NAME OF SUBSTANCE

PARAMETER NUMBER

QUANTITY

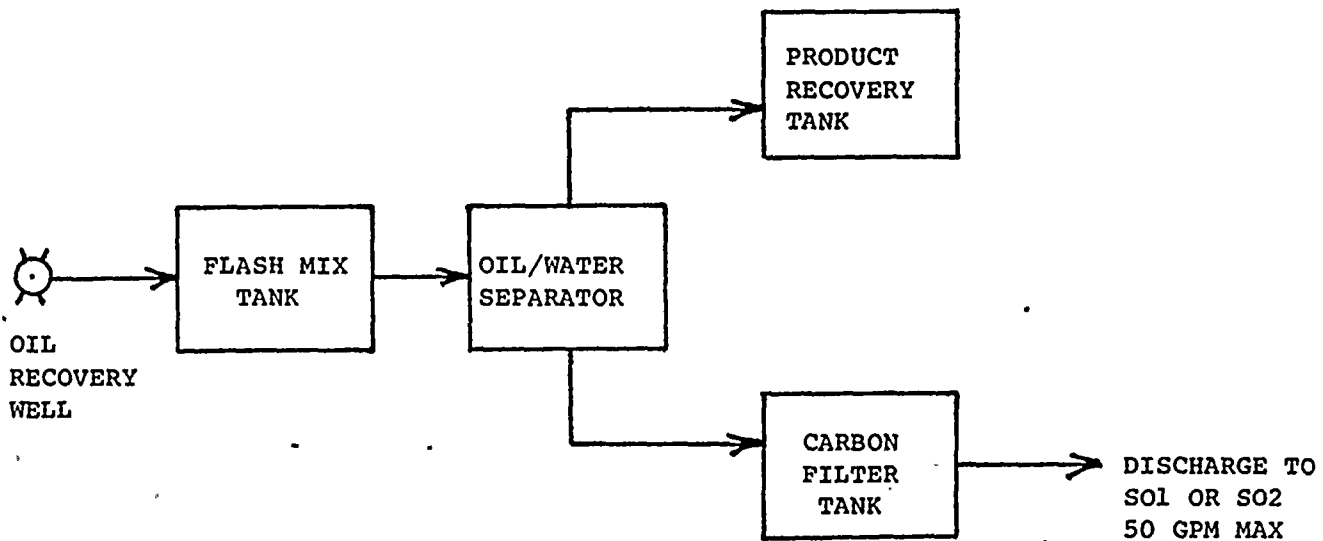
UNITS
/YEAR

SECTION 1

PERMIT
NUMBER →SEE INSTRUCTIONS
ON REVERSE SIDEITEM
6DESCRIPTION
AND
DIAGRAM

- A. PROVIDE A BRIEF DESCRIPTION AND LINE DIAGRAM SHOWING THE WATER FLOW THROUGH YOUR FACILITY FROM INTAKE TO DISCHARGE. SHOW ALL OPERATIONS CONTRIBUTING WASTEWATER, INCLUDING PROCESS AND PRODUCTION AREAS, SANITARY FLOWS, COOLING WATER, AND STORMWATER RUNOFF. YOU MAY GROUP SIMILAR OPERATIONS INTO A SINGLE UNIT. THE WATER BALANCE SHOULD SHOW AVERAGE FLOWS. SHOW ALL SIGNIFICANT LOSSES OF WATER TO PRODUCTS, ATMOSPHERE, AND DISCHARGE. YOU SHOULD USE ACTUAL MEASUREMENTS WHENEVER AVAILABLE; OTHERWISE USE YOUR BEST ESTIMATE.

TYPICAL OIL RECOVERY SYSTEM
POTENTIALLY THREE SYSTEMS REQUIRED
TOTAL MAXIMUM DISCHARGE FLOW = 150 GPM



Application is being made for a groundwater clean-up (oil recovery) system. Cook Nuclear Plant will develop up to three oil recovery wells, each having a maximum capacity of 50 GPM. Groundwater will be treated in an oil/water separator. Recovered product will be accumulated in a product recovery tank then disposed off-site in accordance with State and Federal Regulations. The oily water underflow from the oil/water separator will be treated in a carbon filter tank then discharged to Lake Michigan via Stormwater Outfalls S01 or S02. If an oil/water emulsion develops sodium hydroxide, sulfuric acid, or a cationic polymer such as Clear Floc 232, will be used as necessary to break the emulsion and extend the life of the carbon filter unit.

SECTION I

PERMIT
NUMBER



SEE INSTRUCTIONS
ON REVERSE SIDE

ITEM
7

A. PROVIDE A MAP OF THE TREATMENT FACILITY LOCATION, SHOWING THE LOCATION OF THE DISCHARGE POINT(S) AND OTHER INFORMATION REQUESTED ON REVERSE SIDE OF PAGE.

LOCATION

MAP

SEE TOPOGRAPHICAL MAP ON FOLLOWING PAGE

34 35 36

SCALE 1:24,000

1000 1100 1200 1300 1400 1500 1600 1700 FEET

KILOMETER

Note:

00A Unit 1 Steam Generator Blowdown

00B Unit 2 Steam Generator Blowdown

00C Air Heating Boiler Blowdown

Are all discharged thru 001 or 002

BRIDGMAN, MICH.

NE 4 THREE OAKS 15 QUADRANGLE

N4152.5-W8630/7.5

1970

AMS 3667 I NE--SERIES V862

CONTOUR INTERVAL 10 FEET

DATUM IS MEAN SEA LEVEL

L I N C

33

Drinking Water Wells at Residences

Waverland Beach

T55
T65

Plant Drinking Water Wells

S01 STORMWATER DISCHARGE NORTH

Rosemary Beach

001 UNIT 1 NONCONTACT COOLING

003 UNITS 1 & 2 DEICING.

002 UNIT 2 NONCONTACT COOLING

00D ONSITE ABSORPTION POND

00E SEWAGE ABSORPTION FIELDS

Power plant

S02 STORMWATER DISCHARGE SOUTH

Groundwater Monitoring Wells

Drinking Water Wells at Residences

Groundwater Monitoring Wells

Property Boundary

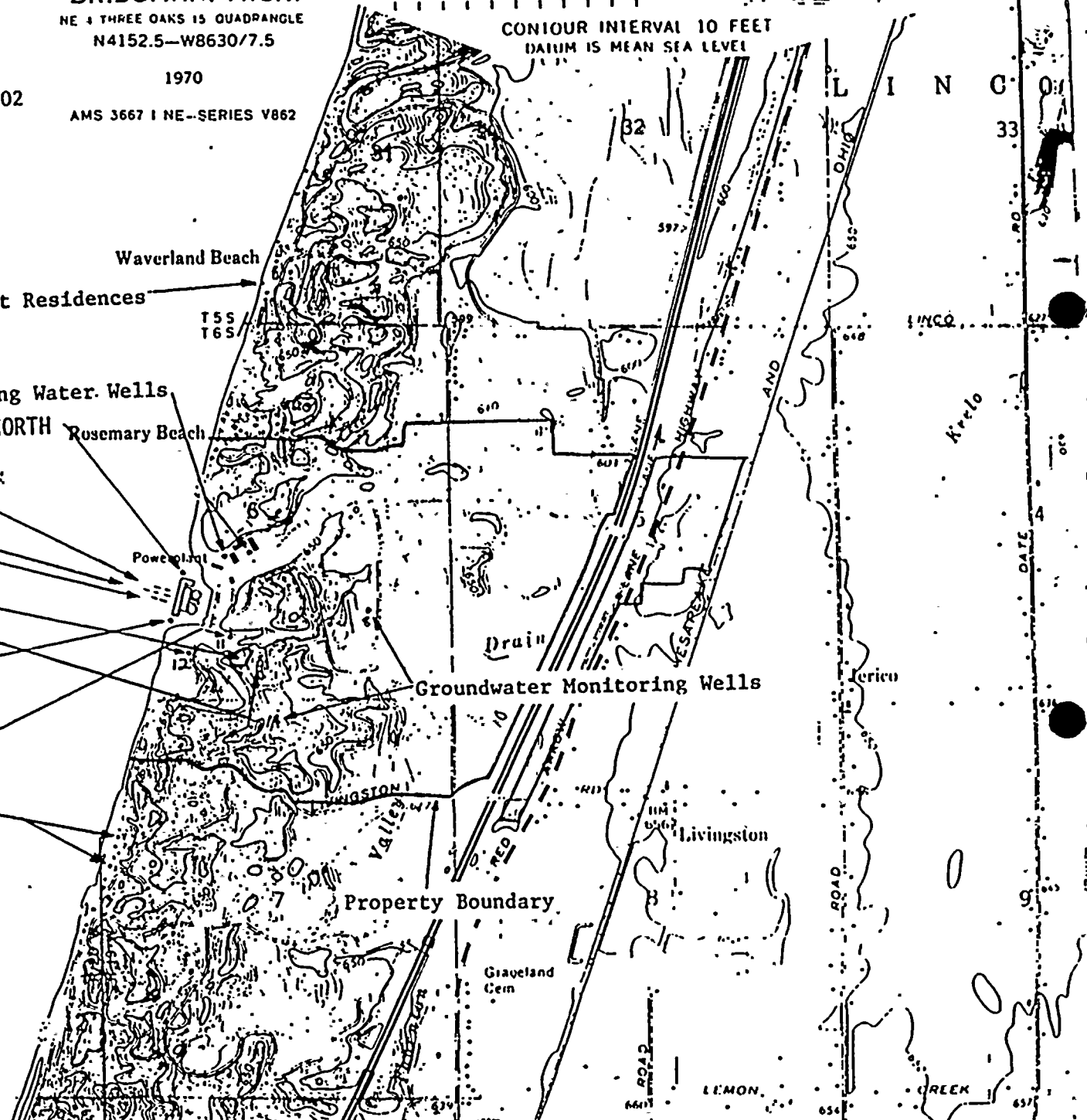
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SECTION I

PERMIT
NUMBER

SEE INSTRUCTIONS
ON REVERSE SIDE

ITEM 8

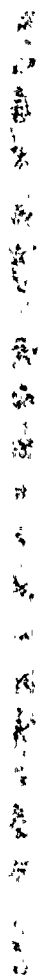
CONCEN-
TRATED
ANIMAL
FEEDING
OPERATION

| | |
|--|---|
| A. DO YOU OPERATE A CONCENTRATED ANIMAL FEEDING FACILITY? (IF NO CONTINUE TO ITEM 10) | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO |
| B. NUMBER OF ACRES USED FOR CONFINEMENT FEEDING? | <div></div> . <div></div> ACRES |
| C. IF THERE IS OPEN CONFINEMENT, HAS A RUNOFF DIVERSION AND CONTROL SYSTEM BEEN CONSTRUCTED? (IF NO, CONTINUE TO ITEM 9) | <input type="checkbox"/> YES <input type="checkbox"/> NO |
| D. WHAT IS THE DESIGN BASIS FOR THE CONTROL SYSTEM? CHECK ONE OF THE FOLLOWING AND ENTER NUMBER OF INCHES OF RAIN? | <input type="checkbox"/> 10 YEAR, 24 HOUR STORM <div></div> . <div></div> INCHES
<input type="checkbox"/> 25 YEAR, 24 HOUR STORM <div></div> . <div></div> INCHES
<input type="checkbox"/> OTHER (SPECIFY) <div></div> . <div></div> INCHES |
| TYPE <div></div> | |
| E. WHAT IS THE NUMBER OF ACRES OF CONTRIBUTING DRAINAGE? | <div></div> . <div></div> ACRES |
| F. WHAT IS THE DESIGN SAFETY FACTOR FOR THIS CONTROL SYSTEM? | <div></div> . <div></div> |

ITEM 9

TYPE
&
NUMBER
OF
ANIMALS
IN
OPEN
AND
HOUSED
CONFINEMENT

| | | |
|--------|--|-------------|
| TYPE 1 | A. LIST TYPE OF ANIMAL. | <div></div> |
| | B. GIVE THE NUMBER OF THIS TYPE OF ANIMAL IN OPEN CONFINEMENT. | <div></div> |
| | C. GIVE THE NUMBER OF THIS TYPE OF ANIMAL IN HOUSED CONFINEMENT. | <div></div> |
| TYPE 2 | A. LIST TYPE OF ANIMAL. | <div></div> |
| | B. GIVE THE NUMBER OF THIS TYPE OF ANIMAL IN OPEN CONFINEMENT. | <div></div> |
| | C. GIVE THE NUMBER OF THIS TYPE OF ANIMAL IN HOUSED CONFINEMENT. | <div></div> |
| TYPE 3 | A. LIST TYPE OF ANIMAL. | <div></div> |
| | B. GIVE THE NUMBER OF THIS TYPE OF ANIMAL IN OPEN CONFINEMENT. | <div></div> |
| | C. GIVE THE NUMBER OF THIS TYPE OF ANIMAL IN HOUSED CONFINEMENT. | <div></div> |
| TYPE 4 | A. LIST TYPE OF ANIMAL. | <div></div> |
| | B. GIVE THE NUMBER OF THIS TYPE OF ANIMAL IN OPEN CONFINEMENT. | <div></div> |
| | C. GIVE THE NUMBER OF THIS TYPE OF ANIMAL IN HOUSED CONFINEMENT. | <div></div> |
| TYPE 5 | A. LIST TYPE OF ANIMAL. | <div></div> |
| | B. GIVE THE NUMBER OF THIS TYPE OF ANIMAL IN OPEN CONFINEMENT. | <div></div> |
| | C. GIVE THE NUMBER OF THIS TYPE OF ANIMAL IN HOUSED CONFINEMENT. | <div></div> |
| TYPE 6 | A. LIST TYPE OF ANIMAL. | <div></div> |
| | B. GIVE THE NUMBER OF THIS TYPE OF ANIMAL IN OPEN CONFINEMENT. | <div></div> |
| | C. GIVE THE NUMBER OF THIS TYPE OF ANIMAL IN HOUSED CONFINEMENT. | <div></div> |
| TYPE 7 | A. LIST TYPE OF ANIMAL. | <div></div> |
| | B. GIVE THE NUMBER OF THIS TYPE OF ANIMAL IN OPEN CONFINEMENT. | <div></div> |
| | C. GIVE THE NUMBER OF THIS TYPE OF ANIMAL IN HOUSED CONFINEMENT. | <div></div> |
| TYPE 8 | A. LIST TYPE OF ANIMAL. | <div></div> |
| | B. GIVE THE NUMBER OF THIS TYPE OF ANIMAL IN OPEN CONFINEMENT. | <div></div> |
| | C. GIVE THE NUMBER OF THIS TYPE OF ANIMAL IN HOUSED CONFINEMENT. | <div></div> |



SECTION I

SEE INSTRUCTIONS
ON REVERSE SIDE

PERMIT
NUMBER

☐

YES

☒

NO

ITEM 10

AQUATIC
ANIMAL
PRODUCTION
FACILITY

A. DO YOU OPERATE AN AQUATIC ANIMAL PRODUCTION FACILITY?
(IF NO, CONTINUE TO ITEM 12)

B. INDICATE THE TOTAL NUMBER OF PONDS, RACEWAYS AND SIMILAR
STRUCTURES AT YOUR FACILITY.

_____, PONDS

_____, RACEWAYS

SPECIFY _____

_____, OTHER

C. INDICATE IN WHICH CALENDAR MONTH MAXIMUM FEEDING OCCURS.

D. ENTER THE TOTAL NUMBER OF POUNDS OF FOOD FED DURING THIS
MONTH?

_____ POUNDS

ITEM 11

SPECIES
OF
AQUATIC
ANIMALS
PRODUCED
AT THIS
FACILITY

SPECIES
1

A. IS THIS SPECIE A WARM OR COLD WATER SPECIE?

☐

WARM

☐

COLD

B. GIVE THE NAME OF THIS SPECIE.

C. ENTER THE TOTAL HARVESTABLE WEIGHT OF THIS SPECIE
PRODUCED BY THIS FACILITY PER YEAR IN POUNDS.

_____ POUNDS

D. ENTER THE MAXIMUM WEIGHT PRESENT FOR THIS SPECIE WHICH
WOULD REPRESENT YOUR NORMAL OPERATION.

_____ POUNDS

SPECIES
2

A. IS THIS SPECIE A WARM OR COLD WATER SPECIE?

☐

WARM

☐

COLD

B. GIVE THE NAME OF THIS SPECIE.

C. ENTER THE TOTAL HARVESTABLE WEIGHT OF THIS SPECIE
PRODUCED BY THIS FACILITY PER YEAR IN POUNDS.

_____ POUNDS

D. ENTER THE MAXIMUM WEIGHT PRESENT FOR THIS SPECIE WHICH
WOULD REPRESENT YOUR NORMAL OPERATION.

_____ POUNDS

SPECIES
3

A. IS THIS SPECIE A WARM OR COLD WATER SPECIE?

☐

WARM

☐

COLD

B. GIVE THE NAME OF THIS SPECIE.

C. ENTER THE TOTAL HARVESTABLE WEIGHT OF THIS SPECIE
PRODUCED BY THIS FACILITY PER YEAR IN POUNDS.

_____ POUNDS

D. ENTER THE MAXIMUM WEIGHT PRESENT FOR THIS SPECIE WHICH
WOULD REPRESENT YOUR NORMAL OPERATION.

_____ POUNDS

SPECIES
4

A. IS THIS SPECIE A WARM OR COLD WATER SPECIE?

☐

WARM

☐

COLD

B. GIVE THE NAME OF THIS SPECIE.

C. ENTER THE TOTAL HARVESTABLE WEIGHT OF THIS SPECIE
PRODUCED BY THIS FACILITY PER YEAR IN POUNDS.

_____ POUNDS

D. ENTER THE MAXIMUM WEIGHT PRESENT FOR THIS SPECIE WHICH
WOULD REPRESENT YOUR NORMAL OPERATION.

_____ POUNDS

SPECIES
5

A. IS THIS SPECIE A WARM OR COLD WATER SPECIE?

☐

WARM

☐

COLD

B. GIVE THE NAME OF THIS SPECIE.

C. ENTER THE TOTAL HARVESTABLE WEIGHT OF THIS SPECIE
PRODUCED BY THIS FACILITY PER YEAR IN POUNDS.

_____ POUNDS

D. ENTER THE MAXIMUM WEIGHT PRESENT FOR THIS SPECIE WHICH
WOULD REPRESENT YOUR NORMAL OPERATION.

_____ POUNDS

SPECIES
6

A. IS THIS SPECIE A WARM OR COLD WATER SPECIE?

☐

WARM

☐

POUNDS

B. GIVE THE NAME OF THIS SPECIE.

C. ENTER THE TOTAL HARVESTABLE WEIGHT OF THIS SPECIE
PRODUCED BY THIS FACILITY PER YEAR IN POUNDS.

_____ POUNDS

D. ENTER THE MAXIMUM WEIGHT PRESENT FOR THIS SPECIE WHICH
WOULD REPRESENT YOUR NORMAL OPERATION.

_____ POUNDS

SECTION I

PERMIT
NUMBER



LIST NAME AND MAILING ADDRESS OF ALL PROPERTY OWNERS ADJACENT TO THE TREATMENT FACILITY AND/OR DISCHARGE/DISPOSAL AREA.

ITEM
12

MAILING

LIST

OF

ADJACENT

PROPERTY

OWNERS

SOUTH

Lake Township
c/o Gerald Wasko
Township Supervisor
1410 Shawnee Road
Bridgman, MI 49106

WEST

Lake Michigan

EAST

Red Arrow Highway

NORTH

Edward P. Caparo
17650 Juday Lake Drive North
South Bend, IN 46635

SECTION II

PERMIT
NUMBERSEE INSTRUCTIONS
ON REVERSE SIDE

| | | | | | | | |
|--|--|---|--|---|--|---|------------|
| ITEM 1

DISCHARGE LOCATION
SCHEDULE
FLOW RATE
WASTEWATER TYPE CODE
1 CONTACT COOLING
2 NONCONTACT COOLING
3 PROCESS
4 SANITARY
5 STORMWATER
UNIT CODE
1 MGY
2 MGD
3 GPD | OUTFALL NUMBER | S1011 | | | | | |
| | A. LOCATION OF DISCHARGE | N1W1 & S1W1, SECTION 1016, TOWN 10161S, RANGE 1191W | | | | | |
| | B. NAME OF RECEIVING WATER (IE. GROUNDWATER OR NAME OF SURFACE WATER) | LAKE MICHEIGAMI | | | | | |
| | C. DO YOU DISCHARGE SEASONALLY? (IF NO, CONTINUE TO E) | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | | | | | |
| | D. IF YES, LIST DISCHARGE PERIODS | MO. / DAY | | MO. / DAY | | | |
| | | <input type="checkbox"/> <input type="checkbox"/> THROUGH <input type="checkbox"/> <input type="checkbox"/> | | <input type="checkbox"/> <input type="checkbox"/> THROUGH <input type="checkbox"/> <input type="checkbox"/> | | | |
| | | <input type="checkbox"/> <input type="checkbox"/> THROUGH <input type="checkbox"/> <input type="checkbox"/> | | <input type="checkbox"/> <input type="checkbox"/> THROUGH <input type="checkbox"/> <input type="checkbox"/> | | | |
| | E. LAND APPLICATION RATE | IN./HR. | | HR./DAY | | IN./WK. | |
| | | <input type="checkbox"/> <input type="checkbox"/> | | <input type="checkbox"/> <input type="checkbox"/> | | <input type="checkbox"/> <input type="checkbox"/> | |
| | F. TYPE OF WASTEWATER DISCHARGE | WASTEWATER TYPE CODE
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | | | | |
| G. DISCHARGE SCHEDULE (YEARLY AVERAGE) | HOURS/DAY | | DAY/YEAR | | | | |
| | 1214 | | 31615 | | | | |
| H. DISCHARGE FLOW RATE | TOTAL YEARLY | | DAILY MINIMUM | | DAILY MAXIMUM | | |
| | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 78118 | | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 10 | | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 10112116 | | |
| I. THE MAXIMUM DISCHARGE FLOW RATE TO BE AUTHORIZED IN PERMIT. | AUTHORIZED | | DESIGN | | UNIT CODE | | |
| | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 178118 | | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 10112116 | | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 11 | | |
| J. MAXIMUM DESIGN DISCHARGE FLOW RATE. | DESIGN | | | | UNIT CODE | | |
| | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 10112116 | | | | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 12 | | |
| ITEM 2

WATER TREATMENT ADDITIVES

UNITS CODE
1 Mg/l
2 Ug/l | A. DO YOU USE WATER TREATMENT ADDITIVES TO TREAT YOUR DISCHARGE? (IF NO, CONTINUE TO ITEM 3) | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | | | | | |
| | B. NAME, FUNCTION, AND CHEMICAL COMPOSITION OF THESE ADDITIVES. | NAME | | FUNCTION | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | C. NAME AND ADDRESS OF MANUFACTURERS OF THESE ADDITIVES. | | | | | | |
| | D. EXPECTED DISCHARGE CONCENTRATION OF ADDITIVES. | MINIMUM | UNITS CODE | AVERAGE | UNITS CODE | MAXIMUM | UNITS CODE |
| | ADDITIVE NAME | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | |
| | ADDITIVE NAME | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | |
| E. DO YOU TREAT THE DISCHARGE TO REMOVE ADDITIVES? | <input type="checkbox"/> YES <input type="checkbox"/> NO | | | | | | |
| F. WHAT IS THE REMOVAL EFFICIENCY AND DISCHARGE FREQUENCY? | % REMOVAL | | DISCHARGE FREQUENCY | | | | |
| ADDITIVE NAME | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | | | |
| ADDITIVE NAME | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | | | |
| ADDITIVE NAME | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | | | |
| G. AS AN ATTACHMENT TO THIS APPLICATION PROVIDE SPECIFIC MAMMALIAN OR AQUATIC TOXICOLOGICAL DATA OR REFERENCE WHICH ARE AVAILABLE AND INFORMATION ON THE RATE OF DEGRADATION OF THE PRODUCTS FOR EACH ADDITIVE. | | | | | | | |

SECTION II

PERMIT
NUMBERSEE INSTRUCTIONS
ON REVERSE SIDE

[S1011]

ITEM
3PROCESS
STREAMS
CONTRIBUTING
TO
OUTFALL
DISCHARGE

UNITS CODE

- 1 POUNDS
2 GALLONS
3 CUBIC
YARDS
4 TONS
5 MGY
6 MGD
7 GPD

TIME

- 1 HOUR
2 DAY
3 WEEK
4 MONTH
5 YEAR

OUTFALL NUMBER

PROCESS
1A. NAME OF PROCESS CONTRIBUTING TO THE DISCHARGE
THROUGH THIS OUTFALL AND SIC CODE

LGRINWTRIRIRIEIMIEIDITA 4911

B. PROCESS SCHEDULE (YEARLY AVERAGE)

HOURS/DAY 214 DAYS/YEAR 31615

C. PROCESS VOLUME FLOW RATE

TOTAL YEARLY 71818 UNIT CODE 5
DAILY MINIMUM 0
DAILY MAXIMUM 01216 6

D. PROCESS PRODUCTION RATE

NA UNITS/TIME

PROCESS
2A. NAME OF PROCESS CONTRIBUTING TO THE DISCHARGE
THROUGH THIS OUTFALL AND SIC CODE

B. PROCESS SCHEDULE (YEARLY AVERAGE)

HOURS/DAY DAYS/YEAR

C. PROCESS VOLUME FLOW RATE

TOTAL YEARLY
DAILY MINIMUM
DAILY MAXIMUM

D. PROCESS PRODUCTION RATE

UNITS/TIME

PROCESS
3A. NAME OF PROCESS CONTRIBUTING TO THE DISCHARGE
THROUGH THIS OUTFALL AND SIC CODE

B. PROCESS SCHEDULE (YEARLY AVERAGE)

HOURS/DAY DAYS/YEAR

C. PROCESS VOLUME FLOW RATE

TOTAL YEARLY
DAILY MINIMUM
DAILY MAXIMUM

D. PROCESS PRODUCTION RATE

UNITS/TIME

PROCESS
4A. NAME OF PROCESS CONTRIBUTING TO THE DISCHARGE
THROUGH THIS OUTFALL AND SIC CODE

B. PROCESS SCHEDULE (YEARLY AVERAGE)

HOURS/DAY DAYS/YEAR

C. PROCESS VOLUME FLOW RATE

TOTAL YEARLY
DAILY MINIMUM
DAILY MAXIMUM

D. PROCESS PRODUCTION RATE

UNITS/TIME

PROCESS
5A. NAME OF PROCESS CONTRIBUTING TO THE DISCHARGE
THROUGH THIS OUTFALL AND SIC CODE

B. PROCESS SCHEDULE (YEARLY AVERAGE)

HOURS/DAY DAYS/YEAR

C. PROCESS VOLUME FLOW RATE

TOTAL YEARLY
DAILY MINIMUM
DAILY MAXIMUM

D. PROCESS PRODUCTION RATE

UNITS/TIME

35

SEE INSTRUCTIONS
ON REVERSE SIDE

SECTION II

PERMIT
NUMBER

ITEM
6

PRIORITY
POLLUTANTS
AND
ADDITIONAL
INFORMATION
FOR
SURFACE
WATER
DISCHARGE
ONLY

OUTFALL NUMBER

SOIL

THE FOLLOWING REQUESTED INFORMATION SHALL BE ADDRESSED BY ALL SURFACE WATER DISCHARGERS.
NOTE! NEW USE DISCHARGERS SHALL PROVIDE EXPECTED VALUES FOR THE QUANTITATIVE AND
QUALITATIVE INFORMATION REQUESTED BELOW.

| | | | |
|--|------------|--|---|
| A. IS THIS FACILITY A PRIMARY INDUSTRY? (REFER TO TABLE IA PAGE 41)
(IF NO, GO TO E) (IF YES, GO TO B) | SEE NOTE 1 | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| B. INDICATE TYPE OF PRIMARY INDUSTRY AS LISTED IN TABLE IA PAGE 41.
(CONTINUE WITH C.) | | | |
| C. DOES THIS OUTFALL DISCHARGE CONTAIN ANY PROCESS WASTEWATER?
(IF NO, GO TO E) (IF YES, GO TO D) | | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| D. INDICATE WHICH GC/MS FRACTIONS MUST BE TESTED FOR.
(REFER TO TABLE IA PAGE 41)

NOTE! FOR EACH GC/MS FRACTION CHECKED, EACH SPECIFIC ORGANIC TOXIC POLLUTANT WITHIN
EACH FRACTION MUST BE ANALYZED FOR (SEE TABLE IIA PAGE 42). IN ADDITION, ALL PRIMARY
INDUSTRY APPLICANTS WITH A PROCESS WASTEWATER DISCHARGE MUST PROVIDE QUANTITATIVE
DATA FOR EACH TOXIC POLLUTANT IN TABLE IIA PAGE 43).

RECORD ALL DATA ON FORMS PROVIDED (ITEM 7) IN THIS BOOKLET.
(CONTINUE WITH E-K BELOW) | | <input type="checkbox"/> VOLATILE | <input type="checkbox"/> BASE/NEUTRAL |
| | | <input type="checkbox"/> ACID | <input type="checkbox"/> PESTICIDE |
| E. IF ANY SURFACE WATER DISCHARGE APPLICANT (PRIMARY OR SECONDARY INDUSTRY), REGARDLESS
OF THE TYPE OF DISCHARGE, KNOWS OR HAS REASON TO BELIEVE THAT ANY POLLUTANT LISTED
IN TABLE IIA AND IIA PAGES 42-43 IS DISCHARGED FROM ANY OUTFALL, THE QUANTITATIVE
MUST BE PROVIDED.

RECORD ALL DATA ON FORMS PROVIDED (ITEM 7) IN THIS BOOKLET. | | <input checked="" type="checkbox"/> NOT APPLICABLE/BELIEVED ABSENT | <input type="checkbox"/> PRESENT/DATA IS ATTACHED |
| F. IF ANY SURFACE WATER DISCHARGE APPLICANT (PRIMARY OR SECONDARY INDUSTRY), REGARDLESS
OF TYPE OF DISCHARGE, KNOWS OR HAS REASON TO BELIEVE ANY POLLUTANTS LISTED IN
TABLE VIA PAGE 43 ARE DISCHARGED FROM ANY OUTFALL, THE APPLICANT MUST DESCRIBE
REASONS FOR THE POLLUTANT BEING PRESENT AND PROVIDE ANY AVAILABLE QUANTITATIVE DATA.

RECORD ALL DATA ON FORMS PROVIDED (ITEM 7) IN THIS BOOKLET. | | <input checked="" type="checkbox"/> NOT APPLICABLE/BELIEVED ABSENT | <input type="checkbox"/> PRESENT/DATA IS ATTACHED |
| G. ALL SURFACE WATER DISCHARGE APPLICANTS (PRIMARY AND SECONDARY INDUSTRIES)
WHO:

USES OR MANUFACTURES 2, 4, 5 - TRICHLOROPHENOXY ACETIC ACID (2, 4, 5-T);
2-(2, 4, 5-TRICHLOROPHENOXY) PROPANOIC ACID (SILVEX, 2, 4, 5, TP);
2-(2, 4, 5-TRICHLOROPHENOXY) ETHYL 2, 2-DICHLOROPROPIONATE (ERBON); 0,
0-DIMETHYL 0-(2, 4, 5-TRICHLOROPHENYL) PHOSPHOROTHIOATE (RONNEL);
2, 4, 5-TRICHLOROPHENOL (TCP); OR HEXACHLOROPHENE (HCP); (ALL DATA FOR THE
ABOVE MUST BE GENERATED USING STANDARD ANALYTICAL CALIBRATION PROCEDURES) OR

KNOWS OR HAS REASON TO BELIEVE THAT TCDD IS OR MAY BE PRESENT IN THEIR DISCHARGE.
MUST REPORT QUALITATIVE DATA, GENERATED WHICH USED A SCREENING PROCEDURE NOT
CALIBRATED WITH ANALYTICAL STANDARDS, FOR 2, 3, 7, 8, - TETRACHLORODIBENZO-P-DIOXIN
(TCDD). RECORD ALL DATA ON FORMS PROVIDED (ITEM 7) IN THIS BOOKLET. | | <input checked="" type="checkbox"/> NOT APPLICABLE/BELIEVED ABSENT | <input type="checkbox"/> PRESENT/DATA IS ATTACHED |
| J. IF THE SURFACE WATER DISCHARGE APPLICANT KNOWS OR HAS REASON TO BELIEVE THAT
BIOLOGICAL TOXICITY TESTS WERE MADE IN THE LAST THREE (3) YEARS ON ANY OF THE
APPLICANT'S DISCHARGES OR ON A RECEIVING WATER IN RELATION TO A DISCHARGE, PROVIDE
THIS INFORMATION AS AN ATTACHMENT TO THIS APPLICATION. | | <input checked="" type="checkbox"/> NOT APPLICABLE | <input type="checkbox"/> APPLICABLE/SEE ATTACHED |
| K. IF A CONTRACT LABORATORY OR CONSULTING FIRM PERFORMED ANY OF THE ANALYSES REQUIRED
BY THIS APPLICATION, PROVIDE THE NAME AND ADDRESS OF EACH LABORATORY OR FIRM AND
THE ANALYSES PERFORMED AS AN ATTACHMENT OF THIS APPLICATION.

SEE NOTE 2 | | <input type="checkbox"/> NOT APPLICABLE | <input checked="" type="checkbox"/> APPLICABLE/SEE ATTACHED |
| L. DO YOU DISCHARGE ANY OTHER TOXIC OR INJURIOUS CHEMICAL SUBSTANCES NOT LISTED IN
TABLES IV PAGE 9 AND IIA THROUGH VIA PAGES 42-43. IF YES, THEN IDENTIFY THE
CHEMICAL SUBSTANCES AND ESTIMATE THE FINAL EFFLUENT CONCENTRATIONS. SUBMIT THIS
INFORMATION AS AN ATTACHMENT TO THIS APPLICATION. | | <input checked="" type="checkbox"/> NOT APPLICABLE | <input type="checkbox"/> APPLICABLE/SEE ATTACHED |

NOTES: 1. Although the Cook Nuclear Plant is a primary industry, the discharge authorization requested is for a groundwater remediation project for petroleum hydrocarbons and is not related to the industrial process. We believe that the specific organic toxic pollutants listed are not present in the groundwater. Therefore, GC/MS fraction testing has not been conducted.

2. EDI Engineering & Science
5555 Glenwood Hill Park
Grand Rapids, MI 49508
Analyses Performed: BOD₅, COD, TOC, Ammonia, TSS, O&G, TPH



SECTION II

SEE INSTRUCTIONS
ON REVERSE SIDE

PERMIT
NUMBER

ITEM
7

CRITICAL
MATERIALS
•
TOXIC
POLLUTANTS
•
HAZARDOUS
SUBSTANCES
IN
DISCHARGE

OUTFALL NUMBER

SOIL

A. USE THIS DATA SHEET TO RECORD INFORMATION AS REQUIRED IN: (CHECK APPROPRIATE BOX FOR WHICH INFORMATION THIS DATA SHEET REPRESENTS.)

- ☐ 1. SECTION II, ITEM 4-E. GROUNDWATER DISCHARGE INFORMATION (PAGE 35)
- ☐ 2. SECTION II, ITEM 6. PRIORITY POLLUTANTS IN SURFACE WATER DISCHARGE (PAGE 37)
- ☐ 3. B. BELOW: CRITICAL MATERIALS (TABLE IV) IN SURFACE WATER DISCHARGE (PAGE 39)

B. LIST ANY CRITICAL MATERIAL (TABLE IV PAGE 6) NOT ADDRESSED IN SECTION II ITEM 6 PRIORITY POLLUTANTS WHICH YOU KNOW OR HAVE REASON TO BELIEVE TO BE PRESENT IN THE DISCHARGE. SEE REVERSE SIDE OF THIS PAGE FOR FURTHER DIRECTIONS.

- ☒ NOT APPLICABLE
- ☐ APPLICABLE (SEE BELOW)

UNITS CODE

- 1 Mg/l
2 Ug/l
3 LBS/DAY
4 KG/DAY

SAMPLE TYPE

- 1 GRAB
2 24 HR. COMP.

| MATERIAL | A. NAME OF CRITICAL MATERIAL OR PRIORITY POLLUTANT | UNIT CODE | SAMPLE TYPE | # OF ANALYSES |
|------------|--|-----------|-------------|---------------|
| MATERIAL 1 | B. AVERAGE CONCENTRATION; SAMPLE TYPE; # OF ANALYSES | | | |
| | C. MAXIMUM CONCENTRATION AND MASS | | | |
| MATERIAL 2 | A. NAME OF CRITICAL MATERIAL OR PRIORITY POLLUTANT | | | |
| | B. AVERAGE CONCENTRATION; SAMPLE TYPE; # OF ANALYSES | | | |
| | C. MAXIMUM CONCENTRATION AND MASS | | | |
| MATERIAL 3 | A. NAME OF CRITICAL MATERIAL OR PRIORITY POLLUTANT | | | |
| | B. AVERAGE CONCENTRATION; SAMPLE TYPE; # OF ANALYSES | | | |
| | C. MAXIMUM CONCENTRATION AND MASS | | | |
| MATERIAL 4 | A. NAME OF CRITICAL MATERIAL OR PRIORITY POLLUTANT | | | |
| | B. AVERAGE CONCENTRATION; SAMPLE TYPE; # OF ANALYSES | | | |
| | C. MAXIMUM CONCENTRATION AND MASS | | | |
| MATERIAL 5 | A. NAME OF CRITICAL MATERIAL OR PRIORITY POLLUTANT | | | |
| | B. AVERAGE CONCENTRATION; SAMPLE TYPE; # OF ANALYSES | | | |
| | C. MAXIMUM CONCENTRATION AND MASS | | | |
| MATERIAL 6 | A. NAME OF CRITICAL MATERIAL OR PRIORITY POLLUTANT | | | |
| | B. AVERAGE CONCENTRATION; SAMPLE TYPE; # OF ANALYSES | | | |
| | C. MAXIMUM CONCENTRATION AND MASS | | | |
| MATERIAL 7 | A. NAME OF CRITICAL MATERIAL OR PRIORITY POLLUTANT | | | |
| | B. AVERAGE CONCENTRATION; SAMPLE TYPE; # OF ANALYSES | | | |
| | C. MAXIMUM CONCENTRATION AND MASS | | | |
| MATERIAL 8 | A. NAME OF CRITICAL MATERIAL OR PRIORITY POLLUTANT | | | |
| | B. AVERAGE CONCENTRATION; SAMPLE TYPE; # OF ANALYSES | | | |
| | C. MAXIMUM CONCENTRATION AND MASS | | | |

ADDITIONAL PAGES OF THIS ITEM 7 ARE ATTACHED FOR THE REST OF THE CRITICAL MATERIALS AND/OR PRIORITY POLLUTANTS REQUIRED TO BE REPORTED.

- ☐ YES
☒ NO

SECTION II

SEE INSTRUCTIONS
ON REVERSE SIDEPERMIT
NUMBER

| | | | | | | |
|--|---|--|---|--|--|--|
| ITEM 1

DISCHARGE LOCATION
SCHEDULE
FLOW RATE
WASTEWATER TYPE CODE
1 CONTACT COOLING
2 NONCONTACT COOLING
3 PROCESS
4 SANITARY
5 STORMWATER
UNIT CODE
1 MGY
2 MGD
3 GPD | OUTFALL NUMBER | | LS 10 12 | | | |
| | A. LOCATION OF DISCHARGE | | N 1 W 1 1/2 S 1 W 1 1/2 SECTION 10 16, TOWN 10 16 1 S, RANGE 1 1 9 1 W | | | |
| | B. NAME OF RECEIVING WATER (IE. GROUNDWATER OR NAME OF SURFACE WATER) | | LAKE MICHIGAN | | | |
| | C. DO YOU DISCHARGE SEASONALLY? (IF NO, CONTINUE TO E) | | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | | | |
| | D. IF YES, LIST DISCHARGE PERIODS | | MO. / DAY
THROUGH
THROUGH
THROUGH | | | |
| | E. LAND APPLICATION RATE | | IN./HR. HR./DAY IN./WK. | | | |
| | F. TYPE OF WASTEWATER DISCHARGE | | WASTEWATER TYPE CODE
3 | | | |
| | G. DISCHARGE SCHEDULE (YEARLY AVERAGE) | | HOURS/DAY DAY/YEAR
21 4 31 6 5 | | | |
| | H. DISCHARGE FLOW RATE | | TOTAL YEARLY DAILY MINIMUM DAILY MAXIMUM
7 8 1 8 0 1 6
UNIT CODE
1 2 | | | |
| | I. THE MAXIMUM DISCHARGE FLOW RATE TO BE AUTHORIZED IN PERMIT. | | AUTHORIZED
7 8 1 8
UNIT CODE
1 | | | |
| J. MAXIMUM DESIGN DISCHARGE FLOW RATE. | | DESIGN
10 1 2 1 6
UNIT CODE
2 | | | | |
| ITEM 2

WATER TREATMENT ADDITIVES

UNITS CODE
1 Mg/l
2 Ug/l | A. DO YOU USE WATER TREATMENT ADDITIVES TO TREAT YOUR DISCHARGE? (IF NO, CONTINUE TO ITEM 3) | | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | | | |
| | B. NAME, FUNCTION, AND CHEMICAL COMPOSITION OF THESE ADDITIVES. | | NAME FUNCTION

_____ | | | |
| | C. NAME AND ADDRESS OF MANUFACTURERS OF THESE ADDITIVES. | | _____

_____ | | | |
| | D. EXPECTED DISCHARGE CONCENTRATION OF ADDITIVES. | | MINIMUM UNITS CODE AVERAGE UNITS CODE MAXIMUM UNITS CODE
ADDITIVE NAME
ADDITIVE NAME
ADDITIVE NAME | | | |
| | E. DO YOU TREAT THE DISCHARGE TO REMOVE ADDITIVES? | | <input type="checkbox"/> YES <input type="checkbox"/> NO | | | |
| | F. WHAT IS THE REMOVAL EFFICIENCY AND DISCHARGE FREQUENCY? | | % REMOVAL DISCHARGE FREQUENCY
HRS./DAY DAYS/WK.
ADDITIVE NAME
ADDITIVE NAME
ADDITIVE NAME | | | |
| | G. AS AN ATTACHMENT TO THIS APPLICATION PROVIDE SPECIFIC MAMMALIAN OR AQUATIC TOXICOLOGICAL DATA OR REFERENCE WHICH ARE AVAILABLE AND INFORMATION ON THE RATE OF DEGRADATION OF THE PRODUCTS FOR EACH ADDITIVE. | | | | | |

SECTION II

SEE INSTRUCTIONS
ON REVERSE SIDE

PERMIT
NUMBER

ITEM
3

PROCESS
STREAMS
CONTRIBUTING
TO
OUTFALL
DISCHARGE

UNITS CODE

- 1 POUNDS
- 2 GALLONS
- 3 CUBIC
YARDS
- 4 TONS
- 5 MGY
- 6 MGD
- 7 GPD

TIME

- 1 HOUR
- 2 DAY
- 3 WEEK
- 4 MONTH
- 5 YEAR

OUTFALL NUMBER

LS1012J

PROCESS
1

A. NAME OF PROCESS CONTRIBUTING TO THE DISCHARGE
THROUGH THIS OUTFALL AND SIC CODE

LGIRINW TIRI RIEIMIEDITIA 1419111

B. PROCESS SCHEDULE (YEARLY AVERAGE)

HOURS/DAY 214 DAYS/YEAR 13615

C. PROCESS VOLUME FLOW RATE

TOTAL YEARLY 78.8 UNIT CODE 5

DAILY MINIMUM 0

DAILY MAXIMUM 101216 6

D. PROCESS PRODUCTION RATE

NA UNITS/TIME

PROCESS
2

A. NAME OF PROCESS CONTRIBUTING TO THE DISCHARGE
THROUGH THIS OUTFALL AND SIC CODE

B. PROCESS SCHEDULE (YEARLY AVERAGE)

HOURS/DAY DAYS/YEAR

C. PROCESS VOLUME FLOW RATE

TOTAL YEARLY UNIT CODE

DAILY MINIMUM

DAILY MAXIMUM

D. PROCESS PRODUCTION RATE

UNITS/TIME

PROCESS
3

A. NAME OF PROCESS CONTRIBUTING TO THE DISCHARGE
THROUGH THIS OUTFALL AND SIC CODE

B. PROCESS SCHEDULE (YEARLY AVERAGE)

HOURS/DAY DAYS/YEAR

C. PROCESS VOLUME FLOW RATE

TOTAL YEARLY UNIT CODE

DAILY MINIMUM

DAILY MAXIMUM

D. PROCESS PRODUCTION RATE

UNITS/TIME

PROCESS
4

A. NAME OF PROCESS CONTRIBUTING TO THE DISCHARGE
THROUGH THIS OUTFALL AND SIC CODE

B. PROCESS SCHEDULE (YEARLY AVERAGE)

HOURS/DAY DAYS/YEAR

C. PROCESS VOLUME FLOW RATE

TOTAL YEARLY UNIT CODE

DAILY MINIMUM

DAILY MAXIMUM

D. PROCESS PRODUCTION RATE

UNITS/TIME

PROCESS
5

A. NAME OF PROCESS CONTRIBUTING TO THE DISCHARGE
THROUGH THIS OUTFALL AND SIC CODE

B. PROCESS SCHEDULE (YEARLY AVERAGE)

HOURS/DAY DAYS/YEAR

C. PROCESS VOLUME FLOW RATE

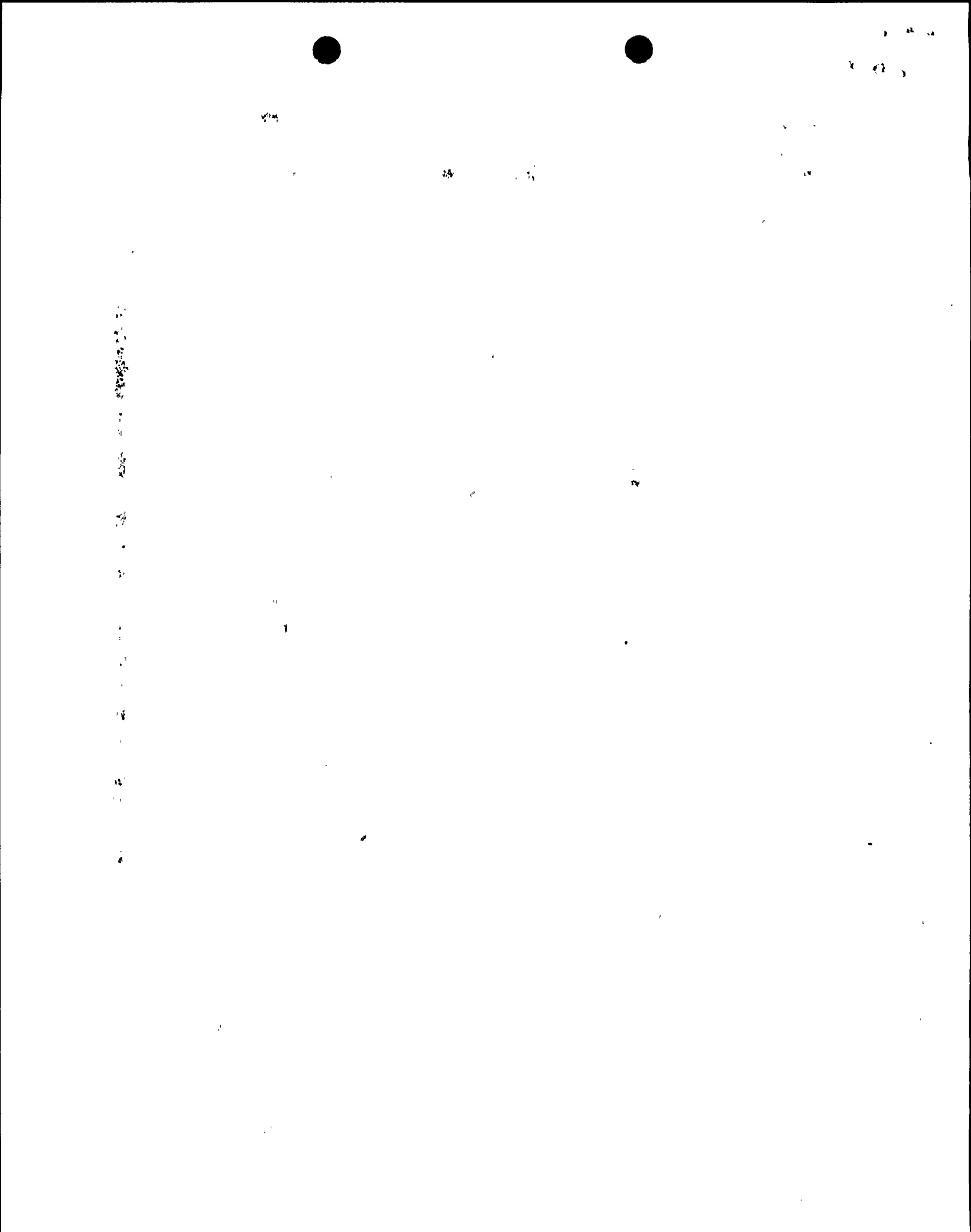
TOTAL YEARLY UNIT CODE

DAILY MINIMUM

DAILY MAXIMUM

D. PROCESS PRODUCTION RATE

UNITS/TIME



35

SECTION II

PERMIT
NUMBERSEE INSTRUCTIONS
ON REVERSE SIDEITEM
6PRIORITY
POLLUTANTS
AND
ADDITIONAL
INFORMATION
FOR
SURFACE
WATER
DISCHARGE
ONLY

OUTFALL NUMBER

[S1012]

THE FOLLOWING REQUESTED INFORMATION SHALL BE ADDRESSED BY ALL SURFACE WATER DISCHARGERS.
NOTE! NEW USE DISCHARGERS SHALL PROVIDE EXPECTED VALUES FOR THE QUANTITATIVE AND QUALITATIVE INFORMATION REQUESTED BELOW.

| | | | |
|---|------------|--|---|
| A. IS THIS FACILITY A PRIMARY INDUSTRY? (REFER TO TABLE IA PAGE 41) (IF NO, GO TO E) (IF YES, GO TO B) | SEE NOTE 1 | <input type="checkbox"/> YES | <input checked="" type="checkbox"/> NO |
| B. INDICATE TYPE OF PRIMARY INDUSTRY AS LISTED IN TABLE IA PAGE 41. (CONTINUE WITH C.) | | | |
| C. DOES THIS OUTFALL DISCHARGE CONTAIN ANY PROCESS WASTEWATER? (IF NO, GO TO E) (IF YES, GO TO D) | | <input type="checkbox"/> YES | <input type="checkbox"/> NO |
| D. INDICATE WHICH GC/MS FRACTIONS MUST BE TESTED FOR. (REFER TO TABLE IA PAGE 41)

NOTE! FOR EACH GC/MS FRACTION CHECKED, EACH SPECIFIC ORGANIC TOXIC POLLUTANT WITHIN EACH FRACTION MUST BE ANALYZED FOR (SEE TABLE IIA PAGE 42). IN ADDITION, ALL PRIMARY INDUSTRY APPLICANTS WITH A PROCESS WASTEWATER DISCHARGE MUST PROVIDE QUANTITATIVE DATA FOR EACH TOXIC POLLUTANT IN TABLE IIA PAGE 43.

RECORD ALL DATA ON FORMS PROVIDED (ITEM 7) IN THIS BOOKLET.

(CONTINUE WITH E-K BELOW) | | <input type="checkbox"/> VOLATILE | <input type="checkbox"/> BASE/NEUTRAL |
| | | <input type="checkbox"/> ACID | <input type="checkbox"/> PESTICIDE |
| E. IF ANY SURFACE WATER DISCHARGE APPLICANT (PRIMARY OR SECONDARY INDUSTRY), REGARDLESS OF THE TYPE OF DISCHARGE, KNOWS OR HAS REASON TO BELIEVE THAT ANY POLLUTANT LISTED IN TABLE IIA AND IIA PAGES 42-43 IS DISCHARGED FROM ANY OUTFALL, THE QUANTITATIVE MUST BE PROVIDED.

RECORD ALL DATA ON FORMS PROVIDED (ITEM 7) IN THIS BOOKLET. | | <input checked="" type="checkbox"/> NOT APPLICABLE/BELIEVED ABSENT | <input type="checkbox"/> PRESENT/DATA IS ATTACHED |
| F. IF ANY SURFACE WATER DISCHARGE APPLICANT (PRIMARY OR SECONDARY INDUSTRY), REGARDLESS OF TYPE OF DISCHARGE, KNOWS OR HAS REASON TO BELIEVE ANY POLLUTANTS LISTED IN TABLE VA PAGE 42 ARE DISCHARGED FROM ANY OUTFALL THE APPLICANT MUST DESCRIBE REASONS FOR THE POLLUTANT BEING PRESENT AND PROVIDE ANY AVAILABLE QUANTITATIVE DATA.

RECORD ALL DATA ON FORMS PROVIDED (ITEM 7) IN THIS BOOKLET. | | <input checked="" type="checkbox"/> NOT APPLICABLE/BELIEVED ABSENT | <input type="checkbox"/> PRESENT/DATA IS ATTACHED |
| G. ALL SURFACE WATER DISCHARGE APPLICANTS (PRIMARY AND SECONDARY INDUSTRIES) WHO:

USES OR MANUFACTURES 2, 4, 5 - TRICHLOROPHOXY ACETIC ACID (2, 4, 5-T);
2-(2, 4, 5-TRICHLOROPHOXY) PROPANOIC ACID (SILVEX, 2, 4, 5, TP);
2-(2, 4, 5-TRICHLOROPHOXY) ETHYL 2, 2-DICHLOROPROPIONATE (ERBON); 0,
0-DIMETHYL 0-(2, 4, 5-TRICHLOROPHENYL) PHOSPHOROTHIOATE (RONNEL);
2, 4, 5-TRICHLOROPHENOL (TCP); OR HEXACHLOROPHENE (HCP); (ALL DATA FOR THE ABOVE MUST BE GENERATED USING STANDARD ANALYTICAL CALIBRATION PROCEDURES) OR

KNOWS OR HAS REASON TO BELIEVE THAT TCDD IS OR MAY BE PRESENT IN THEIR DISCHARGE. MUST REPORT QUALITATIVE DATA, GENERATED WHICH USED A SCREENING PROCEDURE NOT CALIBRATED WITH ANALYTICAL STANDARDS, FOR 2, 3, 7, 8, - TETRACHLORODIBENZO-P-DIOXIN (TCDD). RECORD ALL DATA ON FORMS PROVIDED (ITEM 7) IN THIS BOOKLET. | | <input checked="" type="checkbox"/> NOT APPLICABLE/BELIEVED ABSENT | <input type="checkbox"/> PRESENT/DATA IS ATTACHED |
| J. IF THE SURFACE WATER DISCHARGE APPLICANT KNOWS OR HAS REASON TO BELIEVE THAT BIOLOGICAL TOXICITY TESTS WERE MADE IN THE LAST THREE (3) YEARS ON ANY OF THE APPLICANT'S DISCHARGES OR ON A RECEIVING WATER IN RELATION TO A DISCHARGE, PROVIDE THIS INFORMATION AS AN ATTACHMENT TO THIS APPLICATION. | | <input checked="" type="checkbox"/> NOT APPLICABLE | <input type="checkbox"/> APPLICABLE/SEE ATTACHED |
| K. IF A CONTRACT LABORATORY OR CONSULTING FIRM PERFORMED ANY OF THE ANALYSES REQUIRED BY THIS APPLICATION, PROVIDE THE NAME AND ADDRESS OF EACH LABORATORY OR FIRM AND THE ANALYSES PERFORMED AS AN ATTACHMENT OF THIS APPLICATION. SEE NOTE 2 | | <input type="checkbox"/> NOT APPLICABLE | <input checked="" type="checkbox"/> APPLICABLE/SEE ATTACHED |
| L. DO YOU DISCHARGE ANY OTHER TOXIC OR ILLUOUS CHEMICAL SUBSTANCES NOT LISTED IN TABLE IV PAGE 9 AND IIA THROUGH VA PAGES 42-43. IF YES, THEN IDENTIFY THE CHEMICAL SUBSTANCES AND ESTIMATE THE FINAL EFFLUENT CONCENTRATIONS. SUBMIT THIS INFORMATION AS AN ATTACHMENT TO THIS APPLICATION. | | <input checked="" type="checkbox"/> NOT APPLICABLE | <input type="checkbox"/> APPLICABLE/SEE ATTACHED |

NOTES: 1. Although the Cook Nuclear Plant is a primary industry, the discharge authorization requested is for a groundwater remediation project for petroleum hydrocarbons and is not related to the industrial process. We believe that the specific organic toxic pollutants listed are not present in the groundwater. Therefore, GC/MS fraction testing has not been conducted.

2. EDI Engineering & Science
5555 Glenwood Hill Park
Grand Rapids, MI 49508
Analyses Performed: BOD₅, COD, TOC, Ammonia, TSS, O&G, TPH



100

[illegible]

SECTION II

SEE INSTRUCTIONS
ON REVERSE SIDE

PERMIT
NUMBER

S, 0, 2

ITEM
7

CRITICAL
MATERIALS

TOXIC
POLLUTANTS

HAZARDOUS
SUBSTANCES
IN
DISCHARGE

A. USE THIS DATA SHEET TO RECORD INFORMATION AS REQUIRED IN: (CHECK APPROPRIATE BOX FOR WHICH INFORMATION THIS DATA SHEET REPRESENTS.)

- ☐ 1. SECTION II, ITEM 4-E. GROUNDWATER DISCHARGE INFORMATION (PAGE 55)
- ☐ 2. SECTION II, ITEM 6. PRIORITY POLLUTANTS IN SURFACE WATER DISCHARGE (PAGE 37)
- ☐ 3. 2. BELOW: CRITICAL MATERIALS (TABLE IV) IN SURFACE WATER DISCHARGE (PAGE 39)

B. LIST ANY CRITICAL MATERIAL (TABLE IV PAGE 6) NOT ADDRESSED IN SECTION II ITEM 6 PRIORITY POLLUTANTS WHICH YOU KNOW OR HAVE REASON TO BELIEVE TO BE PRESENT IN THE DISCHARGE. SEE REVERSE SIDE OF THIS PAGE FOR FURTHER DIRECTIONS.

- ☒ NOT APPLICABLE
- ☐ APPLICABLE (SEE BELOW)

UNITS CODE

- 1 Mg/l
2 Ug/l
3 LBS/DAY
4 KG/DAY

SAMPLE TYPE

- 1 GRAB
2 24 HR.COMP.

| | | | | | | | | | | | |
|------------|--|-----------|--|-------------|--|---------------|--|--|--|--|--|
| MATERIAL 1 | A. NAME OF CRITICAL MATERIAL OR PRIORITY POLLUTANT | | | | | | | | | | |
| | B. AVERAGE CONCENTRATION; SAMPLE TYPE; # OF ANALYSES | UNIT CODE | | SAMPLE TYPE | | # OF ANALYSES | | | | | |
| | C. MAXIMUM CONCENTRATION AND MASS | UNIT CODE | | UNIT CODE | | | | | | | |
| MATERIAL 2 | A. NAME OF CRITICAL MATERIAL OR PRIORITY POLLUTANT | | | | | | | | | | |
| | B. AVERAGE CONCENTRATION; SAMPLE TYPE; # OF ANALYSES | UNIT CODE | | SAMPLE TYPE | | # OF ANALYSES | | | | | |
| | C. MAXIMUM CONCENTRATION AND MASS | UNIT CODE | | UNIT CODE | | | | | | | |
| MATERIAL 3 | A. NAME OF CRITICAL MATERIAL OR PRIORITY POLLUTANT | | | | | | | | | | |
| | B. AVERAGE CONCENTRATION; SAMPLE TYPE; # OF ANALYSES | UNIT CODE | | SAMPLE TYPE | | # OF ANALYSES | | | | | |
| | C. MAXIMUM CONCENTRATION AND MASS | UNIT CODE | | UNIT CODE | | | | | | | |
| MATERIAL 4 | A. NAME OF CRITICAL MATERIAL OR PRIORITY POLLUTANT | | | | | | | | | | |
| | B. AVERAGE CONCENTRATION; SAMPLE TYPE; # OF ANALYSES | UNIT CODE | | SAMPLE TYPE | | # OF ANALYSES | | | | | |
| | C. MAXIMUM CONCENTRATION AND MASS | UNIT CODE | | UNIT CODE | | | | | | | |
| MATERIAL 5 | A. NAME OF CRITICAL MATERIAL OR PRIORITY POLLUTANT | | | | | | | | | | |
| | B. AVERAGE CONCENTRATION; SAMPLE TYPE; # OF ANALYSES | UNIT CODE | | SAMPLE TYPE | | # OF ANALYSES | | | | | |
| | C. MAXIMUM CONCENTRATION AND MASS | UNIT CODE | | UNIT CODE | | | | | | | |
| MATERIAL 6 | A. NAME OF CRITICAL MATERIAL OR PRIORITY POLLUTANT | | | | | | | | | | |
| | B. AVERAGE CONCENTRATION; SAMPLE TYPE; # OF ANALYSES | UNIT CODE | | SAMPLE TYPE | | # OF ANALYSES | | | | | |
| | C. MAXIMUM CONCENTRATION AND MASS | UNIT CODE | | UNIT CODE | | | | | | | |
| MATERIAL 7 | A. NAME OF CRITICAL MATERIAL OR PRIORITY POLLUTANT | | | | | | | | | | |
| | B. AVERAGE CONCENTRATION; SAMPLE TYPE; # OF ANALYSES | UNIT CODE | | SAMPLE TYPE | | # OF ANALYSES | | | | | |
| | C. MAXIMUM CONCENTRATION AND MASS | UNIT CODE | | UNIT CODE | | | | | | | |
| MATERIAL 8 | A. NAME OF CRITICAL MATERIAL OR PRIORITY POLLUTANT | | | | | | | | | | |
| | B. AVERAGE CONCENTRATION; SAMPLE TYPE; # OF ANALYSES | UNIT CODE | | SAMPLE TYPE | | # OF ANALYSES | | | | | |
| | C. MAXIMUM CONCENTRATION AND MASS | UNIT CODE | | UNIT CODE | | | | | | | |

ADDITIONAL PAGES OF THIS ITEM 7 ARE ATTACHED FOR THE REST OF THE CRITICAL MATERIALS AND/OR PRIORITY POLLUTANTS REQUIRED TO BE REPORTED.

- ☐ YES
- ☒ NO

