

August 19, 2015

AEP-NRC-2015-82
10 CFR 50.4

Docket Nos.: 50-315
50-316

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Donald C. Cook Nuclear Plant Units 1 and 2
Authorization to Discharge
Groundwater Discharge Permit GW1810102

In accordance with Technical Specification, Appendix B, Section 3.2, this letter provides Indiana Michigan Power Company's (I&M) Groundwater Discharge Permit for I&M, the licensee for Donald C. Cook Nuclear Plant, Units 1 and 2. The Authorization to Discharge, Groundwater Discharge Permit GW1810102, is provided as an enclosure to this letter.

This letter contains no new commitments. Should you have any questions regarding this notification, please contact Mr. Jon Harner, Environmental Manager, at (269) 465-5901, extension 2102.

Sincerely,



FOR Michael K. Scarpello
Regulatory Affairs Manager

KMH/ams

Enclosure: Authorization to Discharge, Groundwater Discharge Permit GW1810102

c: A. W. Dietrich – NRC Washington DC
J. T. King – MPSC, w/o enclosure
MDEQ – WHMD/RPS, w/o enclosure
NRC Resident Inspector
C. D. Pederson – NRC Region III
A. J. Williamson – AEP Ft Wayne, w/o enclosure

COU
NRC

ENCLOSURE TO AEP-NRC-2015-82

Authorization to Discharge
Groundwater Discharge Permit GW1810102



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



DAN WYANT
DIRECTOR

August 3, 2014

Mr. Jon Harner
Indiana Michigan Power
One Cook Place, Mail Zone 5A
Bridgman, Michigan 49106

Dear Mr. Harner:

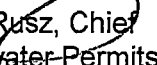
Enclosed is the Authorization to Discharge, GW1810102, issued by the Department of Environmental Quality (DEQ) on August 3, 2015. The Authorization provides for the discharge by American Electric Power Company, Indiana Michigan Power, Donald C. Cook Nuclear Plant of a maximum of 2,460,000 gallons per day (897,900,000 gallons per year) of sanitary sewage and process wastewater.

The issuance of this permit does not authorize violation of any federal, state or local laws or regulations, nor does it obviate the necessity of obtaining such permits, including any other Department of Environmental Quality permits, or approvals from other units of government as may be required by law.

Please review carefully the conditions of the Authorization. In particular, please notice that any change in the discharge will require a new Authorization by the DEQ.

Questions concerning this Authorization can be directed to the Ground Water Permits Unit, Permits Section, Water Resources Division, DEQ, telephone: 517-284-5570, or the Water Resources Division, Kalamazoo District Office, telephone: 269-567-3500.

Sincerely,


Rick D. Rysz, Chief
Groundwater Permits Unit
Permits Section
Water Resources Division

Enclosure

cc: Berrien County Health Department
Mr. Jerrod Sanders, DEQ - Kalamazoo

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY

GROUNDWATER DISCHARGE PERMIT

In compliance with the provisions of Michigan's Natural Resources and Environmental Protection Act, 1994 P.A. 451, as amended (NREPA), Part 31, Water Resources Protection, and Part 41, Sewerage Systems,

Donald C. Cook Nuclear Plant
Indiana Michigan Power
American Electric Power
One Cook Place, Mail Zone 5A
Bridgman, Michigan 49106

is authorized to discharge 60,000 gallons per day, 21,900,000 gallons per year of sanitary sewage and 2,400,000 gallons per day, 876,000,000 gallons per year of process wastewater from the Donald C. Cook Nuclear Plant, located at

One Cook Place
Bridgman, Michigan 49106

designated as **Donald C. Cook Nuclear Plant**

to the groundwater of the State of Michigan in accordance with effluent limitations, monitoring requirements and other conditions set forth in this permit.

Rule Authorization:	2218
Wastewater Type:	Sanitary Sewage and Process Wastewater
Wastewater Treatment Method:	Sanitary Sewage: Sequencing Batch Reactor Process Wastewater: Reverse Osmosis, Filtration, Neutralization
Wastewater Disposal Method:	Sanitary Sewage: Rapid Infiltration Basins Process Wastewater: Seepage Ponds

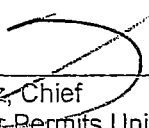
The issuance of this permit does not authorize violation of any federal, state or local laws or regulations, nor does it obviate the necessity of obtaining such permits, including any other Michigan Department of Environmental Quality (Department) permits, or approvals from other units of government as may be required by law.

This permit is based on a complete application submitted on **July 15, 2013**

This permit takes effect on September 1, 2015. The provisions of this permit are severable. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term in accordance with applicable laws and rules.

This permit and the authorization to discharge shall expire at midnight, September 1, 2019. In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit an application which contains such information, forms, and fees as are required by the Department by March 5, 2019.

Issued August 3, 2015


Rick D. Rusz, Chief
Groundwater Permits Unit
Permits Section, Water Resources Division

CONTACT INFORMATION

Unless specified otherwise, all contact with the Department required by this permit shall be made to the Kalamazoo District Supervisor of the Water Resources Division. The Kalamazoo District Office is located at 7953 Adobe Road, Kalamazoo, Michigan 49009-5025, Telephone: 269-567-3500, Fax: 269-567-9440.

CONTESTED CASE INFORMATION

Any person who is aggrieved by this permit may file a sworn petition with the Michigan Administrative Hearing System of the Michigan Department of Licensing and Regulatory Affairs, setting forth the conditions of the permit which are being challenged and specifying the grounds for the challenge. The Department of Licensing and Regulatory Affairs may reject any petition filed more than 60 days after issuance as being untimely.

PART I**1. Effluent Limitations: Process Wastewater (Turbine Room Sump, Outfall OOD)**

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 a maximum of 2,400,000 gallons per day, 876,000,000 gallons per year, of process wastewater from the monitoring points listed below to the groundwater in the SW ¼ of the SE ¼, Section 6, T6S, R19W, Lake Township, Berrien County, Michigan. The discharge shall be limited and monitored by the permittee as specified below.

<u>Parameter</u>	<u>Maximum Daily Limit</u>	<u>Units</u>	<u>Frequency of Analysis</u>	<u>Sample Type</u>
EFFLUENT				
Monitoring Point EQ-1				
Flow	2,400,000	GPD	Daily	Report Total
Flow	876,000,000	GPY	Annually	Calculation
Total Inorganic Nitrogen	Report	mg/l	2x/week	Calculation
Ammonia Nitrogen	Report	mg/l	2x/week	Grab
Nitrate Nitrogen	Report	mg/l	2x/week	Grab
Nitrite Nitrogen	Report	mg/l	2x/week	Grab
pH (Minimum)	6.5	S.U.	5x/week	Grab
pH (Maximum)	9.5	S.U.	5x/week	Grab
Hydrazine	Report	ug/l	2x/week	Grab
Dissolved Oxygen	Report	mg/l	2x/week	Grab
Chloride	Report	mg/l	2x/week	Grab
Sodium	Report	mg/l	2x/week	Grab
Total Phosphorus	Report	mg/l	2x/month	Grab
VOC's, Metals*	See Attachments V-VI		Annual	Grab

*Annual sampling shall occur in September.

LAND APPLICATION**Monitoring Point: OOD, Process Wastewater (Turbine Room Sump)**

Application Rate	26	gal/day/ft ²	Daily	Calculation
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a) Total Inorganic Nitrogen

The daily maximum value for total inorganic nitrogen shall be reported as the sum of the daily maximum values for ammonia nitrogen, nitrate nitrogen, and nitrite nitrogen.

b) Sampling Locations

Effluent flow shall be measured in accordance with the approved sampling plan. The location and method of collecting and analyzing effluent quality and soil samples shall be in accordance with the approved sampling plan. The Department may approve alternate sampling locations which are demonstrated by the permittee to be representative.

PART I**2. Effluent Limitations: Sanitary Sewage (Outfall OOE)**

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 a maximum of 60,000 gallons per day, 21,900,000 gallons per year, of sanitary sewage from the monitoring points listed below to the groundwater in the SW ¼ of the SE ¼, Section 6, T6S, R19W, Lake Township, Berrien County, Michigan. The discharge shall be limited and monitored by the permittee as specified below.

<u>Parameter</u>	<u>Maximum Daily Limit</u>	<u>Units</u>	<u>Frequency of Analysis</u>	<u>Sample Type</u>
EFFLUENT				
Monitoring Point EQ-2				
Flow	60,000	GPD	Daily	Report Total
Flow	21,900,000	GPY	Annually	Calculation
Total Inorganic Nitrogen	Report	mg/l	Weekly	Calculation
Ammonia Nitrogen	Report	mg/l	Weekly	Grab
Nitrate Nitrogen	Report	mg/l	Weekly	Grab
Nitrite Nitrogen	Report	mg/l	Weekly	Grab
pH (Minimum)	6.5	S.U.	Weekly	Grab
pH (Maximum)	9.5	S.U.	Weekly	Grab
Biochemical Oxygen Demand (BOD5)	35	mg/l	Weekly	Grab
Dissolved Oxygen	Report	mg/l	Weekly	Grab
Chloride	Report	mg/l	Weekly	Grab
Sodium	Report	mg/l	Weekly	Grab
Total Phosphorus	15	mg/l	Weekly	Grab
VOC's, Metals*	See Attachment V-VI		Annual	Grab

*Annual sampling shall occur in September.

LAND APPLICATION**Monitoring Point: Basin A, Sanitary Sewage (Outfall OOE)**

Application Rates:	7.5	gal/day/ft2	Daily	Calculation
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Monitoring Point: Basin B, Sanitary Sewage (Outfall OOE)

Application Rates:	17.8	gal/day/ft2	Daily	Calculation
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a) Total Inorganic Nitrogen

The daily maximum value for total inorganic nitrogen shall be reported as the sum of the daily maximum values for ammonia nitrogen, nitrate nitrogen, and nitrite nitrogen.

PART I**b) Sampling Locations**

Effluent flow shall be measured in accordance with the approved sampling plan. The location and method of collecting and analyzing effluent quality and soil samples shall be in accordance with the approved sampling plan. The Department may approve alternate sampling locations which are demonstrated by the permittee to be representative.

3. Groundwater Monitoring and Limitations (Upgradient)

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee shall sample the groundwater from the hydraulically upgradient groundwater monitor wells EW-8 and EW-16 as described below:

<u>Parameter</u>	<u>Limit</u>	<u>Units</u>	<u>Frequency of Analysis</u>	<u>Sample Type</u>
Static Water Elevation	(report)	USGS-Ft	Quarterly	Measured
pH	(report)	S.U.	Quarterly	Grab
Specific Conductance	(report)	umhos/cm.	Quarterly	Grab
Total Inorganic Nitrogen	(report)	mg/l	Quarterly	Calculation
Ammonia Nitrogen	(report)	mg/l	Quarterly	Grab
Nitrate Nitrogen	(report)	mg/l	Quarterly	Grab
Nitrite Nitrogen	(report)	mg/l	Quarterly	Grab
Chloride	(report)	mg/l	Quarterly	Grab
Sodium	(report)	mg/l	Quarterly	Grab
Total Phosphorus	(report)	mg/l	Quarterly	Grab
Calcium	(report)	mg/l	Annually	Grab
Iron	(report)	mg/l	Annually	Grab
Magnesium	(report)	mg/l	Annually	Grab
Manganese	(report)	ug/l	Annually	Grab
Potassium	(report)	mg/l	Annually	Grab
Dissolved Oxygen	(report)	mg/l	Annually	Grab
Bicarbonate	(report)	mg/l	Annually	Grab
Sulfate	(report)	mg/l	Quarterly	Grab
Total Dissolved Solids	(report)	mg/l	Quarterly	Grab
Total Alkalinity	(report)	mg/l	Annually	Grab
Total Organic Carbon	(report)	mg/l	Annually	Grab
Phenols	(report)	mg/l	Annually	Grab
Aluminum	(report)	ug/l	Annually	Grab
Barium	(report)	ug/l	Annually	Grab
Boron	(report)	ug/l	Annually	Grab
Cadmium	(report)	ug/l	Annually	Grab
Chromium	(report)	ug/l	Annually	Grab
Copper	(report)	ug/l	Annually	Grab
Lead	(report)	ug/l	Annually	Grab
Total Mercury	(report)	ug/l	Annually	Grab
Nickel	(report)	ug/l	Annually	Grab
Selenium	(report)	ug/l	Annually	Grab
Silver	(report)	ug/l	Annually	Grab
Zinc	(report)	ug/l	Annually	Grab
Hydrazine	(report)	ug/l	Annually	Grab

a) Sampling Locations

Unless an alternative monitoring schedule is approved in the Sampling and Analysis Plan, quarterly sampling shall be in the months of January, April, July and October. Annual sampling shall be in July. The Department may approve alternate sampling locations which are demonstrated by the permittee to be representative.

b) Total Inorganic Nitrogen at Groundwater Monitoring Points

The value for total inorganic nitrogen shall be reported as the sum of the values for ammonia nitrogen, nitrate nitrogen, and nitrite nitrogen.

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4. Groundwater Monitoring and Limitations (Downgradient)

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee shall sample the groundwater from hydraulically downgradient groundwater monitor wells. The discharge of treated wastewater shall not cause the groundwater in monitor wells EW-1A, EW-12, EW-13 and EW-19 to exceed the limitations below.

<u>Parameter</u>	<u>Maximum Daily Limit</u>	<u>Units</u>	<u>Frequency of Analysis</u>	<u>Sample Type</u>
Static Water Elevation	(report)	USGS-Ft	Quarterly	Measured
pH (Minimum)	6.5	S.U.	Quarterly	Grab
pH (Maximum)	9.5	S.U.	Quarterly	Grab
Specific Conductance	(report)	umhos/cm	Quarterly	Grab
Total Inorganic Nitrogen	5	mg/l	Quarterly	Calculation
Ammonia Nitrogen	(report)	mg/l	Quarterly	Grab
Nitrate Nitrogen	(report)	mg/l	Quarterly	Grab
Nitrite Nitrogen	0.5	mg/l	Quarterly	Grab
Chloride*	(report)	mg/l	Quarterly	Grab
Sodium*	(report)	mg/l	Quarterly	Grab
Total Phosphorus	1	mg/l	Quarterly	Grab
Calcium	(report)	mg/l	Annually	Grab
Iron	(report)	mg/l	Annually	Grab
Magnesium	200	mg/l	Annually	Grab
Manganese	530	ug/l	Annually	Grab
Potassium	(report)	mg/l	Annually	Grab
Dissolved Oxygen	(report)	mg/l	Annually	Grab
Bicarbonate	(report)	mg/l	Annually	Grab
Sulfate	250	mg/l	Quarterly	Grab
Total Dissolved Solids	(report)	mg/l	Quarterly	Grab
Total Alkalinity	(report)	mg/l	Annually	Grab
Total Organic Carbon	(report)	mg/l	Annually	Grab
Phenols	(report)	mg/l	Annually	Grab
Aluminum	150	ug/l	Annually	Grab
Barium	440	ug/l	Annually	Grab
Boron	1900	ug/l	Annually	Grab
Cadmium	2.2	ug/l	Annually	Grab
Chromium	11	ug/l	Annually	Grab
Copper	9	ug/l	Annually	Grab
Lead	10	ug/l	Annually	Grab
Total Mercury	0.0013	ug/l	Annually	Grab
Nickel	52	ug/l	Annually	Grab
Selenium	5	ug/l	Annually	Grab
Silver	0.2	ug/l	Annually	Grab
Zinc	120	ug/l	Annually	Grab
Hydrazine	10	ug/l	Annually	Grab

*The permittee shall comply with the conditions of Part 1, Section 11(f) and (g), Compliance Requirements, of this permit if sodium and/or chloride exceeds the specified level.

a) Sampling Locations

Unless an alternative monitoring schedule is approved in the Sampling and Analysis Plan, quarterly sampling shall be in the months of January, April, July and October. Annual sampling shall be in July. The Department may approve alternate sampling locations which are demonstrated by the permittee to be representative.

b) Total Inorganic Nitrogen at Groundwater Monitoring Points

The daily maximum value for total inorganic nitrogen shall be reported as the sum of the daily maximum values for ammonia nitrogen, nitrate nitrogen, and nitrite nitrogen.

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5. Operation and Maintenance Manual

The permittee is required to develop and update as needed, an Operation and Maintenance Manual. A guidance document is available via the internet at: <http://www.deq.state.mi.us/documents/deq-wmd-gwp-Part22GuidshtVI.pdf>.

6. Operator Certification

The permittee shall have the waste treatment facilities under direct supervision of an operator certified at the appropriate level for the facility certification by the Department, as required by Sections 3110 and 4104 of the NREPA.

7. Submittal Requirements for Self-Monitoring Data

Part 31 of Act 451 of 1994, as amended, specifically Section 324.3110(3) and Rule 323.2155(2) of Part 21 allows the department to specify the forms to be utilized for reporting the required self-monitoring data. Unless instructed on the effluent limitations page to conduct "Retained Self Monitoring" the permittee shall submit self-monitoring data via the Department's Electronic Environmental Discharge Monitoring Reporting (e2-DMR) system.

The permittee shall utilize the information provided on the e2-Reporting website @ <https://secure1.state.mi.us/e2rs/> to access and submit the electronic forms. Both monthly summary and daily data shall be submitted to the department no later than the **20th day of the month** following each month of the authorized discharge period(s). The permittee may be allowed to submit the electronic forms after this date if the Department has granted an extension to the submittal date.

8. Facility Operation and Maintenance

During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee shall comply with the inspection, operation and maintenance program requirements specified below.

<u>Location</u>	<u>Condition</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Seepage Pond	Vegetation Control	Weekly	Visual Observation
	Nuisance Animals	Weekly	Visual Observation
	Odors	Weekly	Olfactory Observation
Rapid Infiltration Beds	Vegetation Control	Weekly	Visual Observation

a) Pond Inspection

These inspections shall include:

- (1) The pond for growth of aquatic plants, offensive odors, insect infestations, scum, floating sludge, and septic conditions;
- (2) The control structures and pump stations to assure that valves, gates and alarms are set correctly and properly functioning;
- (3) The pond warning signs.

b) Pond Maintenance

The permittee shall implement a Facility Maintenance Program that incorporates the following management practices unless otherwise authorized by the Department.

- (1) To allow for ease of access for inspections, with the exception of occasional trees, vegetation shall **be maintained at a height not more than 24 inches above the ground around the perimeter of the pond.**
- (2) Not more than 10 percent of the water surface shall be covered by floating vegetation and not more than 10 percent of the water perimeter may have emergent rooted aquatic plants.
- (3) Damage caused by erosion, slumping or animal burrowing shall be corrected immediately and steps taken to prevent occurrences in the future.
- (4) The occurrence of scum, offensive odors, insect infestations, and septic conditions shall be minimized.

PART I

9. General Conditions

- a) The discharge shall not be, or not be likely to become, injurious to the protected uses of the waters of the state.
- b) The discharge shall not cause runoff to, ponding on, or flooding of adjacent property, shall not cause erosion, and shall not cause nuisance conditions.
- c) The point of discharge shall be located not less than 100 feet inside the boundary of the property where the discharge occurs, unless a lesser distance is specifically authorized in writing by the Department.
- d) The discharge shall not create a facility as defined in Part 201, Environmental Remediation, of the NREPA.

10. Other Conditions

- a) **Basis of Design** - The discharge shall be treated in accordance with the approved basis of design pursuant to Rule 323.2218(2).
- b) **Wastewater Characterization** - The wastewater being treated shall be of the same chemical, biological, and physical characteristics as described in the characterization required pursuant to Rule 323.2220.

11. Compliance Requirements

Compliance with all applicable requirements set forth in Parts 31 and 41 of the NREPA, and related regulations and rules is required. All instances of noncompliance with concentration limitations of effluent or groundwater shall be reported as follows.

- a) If the facility is in a wellhead protection area, within 48 hours from the time the permittee becomes aware of the noncompliance, the permittee shall report noncompliance to the public water supply manager.
- b) Within seven (7) days from the time the permittee becomes aware of the noncompliance, the permittee shall report, in writing, all instances of noncompliance. Written reporting shall include all of the following:
 - 1) the name of the substance(s) for which a limit was exceeded; 2) the concentration at which the substance was found; and 3) the location(s) at which the limit was exceeded.
- c) Within 14 days from the time the permittee becomes aware of the noncompliance, the permittee shall resample the monitoring point at which the limit was exceeded for the substance for which a limit was exceeded.
- d) Within 60 days from the time the permittee becomes aware of the noncompliance, the permittee shall submit a written report that shall include all of the following:
 - 1) the results of the confirmation sampling;
 - 2) an evaluation of the cause for the limit being exceeded and the impact of that event to the groundwater; and 3) a proposal detailing steps taken or to be taken to prevent recurrence.
- e) In accordance with applicable rules, the Department may require additional activities including, but not limited, to the following:
 - (1) Change the monitoring program, including increasing the frequency of effluent monitoring or groundwater sampling, or both.
 - (2) Develop and implement a groundwater monitoring program if one is not in place.
 - (3) If the discharge is in a designated wellhead protection area, assess the effects of the discharge on the public water supply system.
 - (4) Review the operational or treatment procedures, or both, at the facility.
 - (5) Define the extent to which groundwater quality exceeds the applicable criteria that would designate the site as a facility under Part 201.
 - (6) Revise the operational procedures at the facility.
 - (7) Change the design or construction of the wastewater operations at the facility.
 - (8) Initiate an alternative method of waste treatment or disposal.
 - (9) Remediate contamination to comply with the terms of Part 201, if applicable.

PART I

- f) The conditions set forth in subsection g, below shall apply if the discharge from the facility is otherwise in compliance with the sodium and chloride limitations specified in Section 324.3109e(1) of the NREPA and Part 1, Section 1, Effluent Limitations of this permit. In accordance with Section 324.3109e(4) of the NREPA, if the permittee complies with these conditions, the permittee shall not be subject to response activities under Part 201 with respect to the discharge of sodium and chloride.
- g) If the permittee discharges sodium or chloride, or both, into groundwater that migrates off of the property on which the discharge was made and that discharge directly causes the groundwater concentration of sodium or chloride, or both, to exceed the levels of 230 mg/l and 250 mg/l, respectively, provided under Section 324.3109(e)(2) of the NREPA, the permittee shall do all of the following:
 - (1) Initiate a sampling program approved by the department to monitor downgradient water supply wells for the levels of sodium or chloride, or both, in the water supply.
 - (2) If the concentration of sodium in a downgradient water supply exceeds the level provided under Section 324.3109(e)(2), the permittee shall provide and maintain, for each affected downgradient water supply, free of charge, a point-of-use treatment system approved by the department that will remove sodium from the water supply so as to be in compliance with the level provided under Section 324.3109(e)(2).
 - (3) If the concentration of chloride in a downgradient water supply exceeds the level provided under Section 324.3109(e)(2), provide to each affected water supply owner a notice of aesthetic impact with respect to chloride levels.
- h) If the Department determines there is a change in groundwater quality from a normal operating baseline that indicates the concentration of a substance in groundwater may exceed an applicable limit, then the discharger shall take the following actions if required by the Department:
 - (1) Change the monitoring program, including increasing the frequency of effluent sampling or groundwater sampling, or both.
 - (2) Review the operational or treatment procedures, or both, at the facility.

12. Request for Discharge of Water Treatment Additives

In the event a permittee proposes to discharge water treatment additives (WTAs) to groundwater, the permittee shall submit a request to discharge WTAs to the Department for approval. Such requests shall be sent to the Permits Section, Water Resources Division, Department of Environmental Quality, P.O. Box 30458, Lansing, Michigan 48909, with a copy to the Department contact listed on the cover page of this permit. Instructions to submit a request electronically may be obtained via the internet (<http://www.michigan.gov/deqnpdes>; then click on Applicable Rules and Regulations, which is under the Information banner and then click on Water Treatment Additive Discharge Application Instructions). Written approval from the Department to discharge such WTAs at specified levels shall be obtained prior to discharge by the permittee. Failure to obtain approval prior to discharging any WTA is a violation of this permit. Additional monitoring and reporting may be required as a condition for the approval to discharge the WTA. WTAs include such chemicals as herbicides used to kill weeds and grasses as part of lagoon maintenance.

A request to discharge WTAs to groundwater shall include all of the following:

- a) product information:
 - (1) name of the product;
 - (2) Material Safety Data Sheet;
 - (3) product function (i.e. microbiocide, flocculants, etc.);
 - (4) specific gravity if the product is a liquid; and
 - (5) annual product use rate (liquids in gallons per year and solids in pounds per year);
- b) ingredient information:
 - (1) name of each ingredient;
 - (2) CAS number for each ingredient; and
 - (3) fractional content by weight for each product;
- c) the monitoring point from which the WTA is to be discharged;
- d) the proposed WTA discharge concentration;

PART I

- e) the discharge frequency (i.e., number of hours per day and number of days per year);
- f) the type of removal treatment, if any, that the WTA receives prior to discharge;
- g) relevant mammalian toxicity studies for the product or all of its constituents (if product toxicity data are submitted, the applicant shall provide information showing that the product tested has the same composition as the product listed under Item "a" above. Preferred studies are subchronic or chronic in duration, use the oral route of exposure, examine a wide array of endpoints and identify a no-observable-adverse-effect-level. Applicants are strongly encouraged to provide the preferred data. If preferred data are not available, then the minimum information needed is an oral rat LD50 study. In addition, an environmental fate analysis that predicts the mobility of the product/ingredients and their potential to migrate to groundwater may be provided.
- h) If the discharge of the WTA to groundwater is within 1,000 feet of a surface water body, the following information shall also be provided:
 - (1) a 48-hour LC50 or EC50 for a North American freshwater planktonic crustacean (either *Ceriodaphnia* sp., *Daphnia* sp., or *Simocephalus* sp.); and
 - (2) the results of a toxicity test for one other North American freshwater aquatic species (other than a planktonic crustacean) that meets a minimum requirement of Rule 323.1057(2) of the Water Quality Standards.

Prior to submitting the request, the permittee may contact the Permits Section by telephone at 517-284-5568 or via the internet at the address given above to determine if the Department has the product toxicity data required by Item "g" above. If the Department has the data, the permittee will not need to submit product toxicity data.

PART II

Definitions

This list of definitions may include terms not applicable to this permit.

Annual Monitoring Frequency refers to a calendar year beginning on January 1 and ending on December 31. When required by this permit, an analytical result, reading, value or observation must be reported for that period if a discharge occurs during that period.

Biosolids are the solid, semisolid, or liquid residues generated during the treatment of sanitary sewage or domestic sewage in a treatment works. This includes, but is not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment processes and a derivative of the removed scum or solids.

Bulk Biosolids means biosolids that are not sold or given away in a bag or other container for application to a lawn or home garden.

By-Pass means any diversion from or bypass of facilities necessary to maintain compliance with the terms and conditions of this permit.

Class B Biosolids refers to material that has met the Class B pathogen reduction requirements or equivalent treatment by a Process to Significantly Reduce Pathogens (PSRP) in accordance with the Part 24 Rules. Processes include aerobic digestion, composting, anaerobic digestion, lime stabilization and air drying.

Daily Concentration is the sum of the concentrations of the individual samples of a parameter divided by the number of samples taken during any calendar day. If the parameter concentration in any sample is less than the quantification limit, regard that value as zero when calculating the daily concentration. For pH, report the maximum value of any individual sample taken during the month and the minimum value of any individual sample taken during the month.

Department means the Michigan Department of Environmental Quality.

Detection Level means the lowest concentration or amount of the target analyte that can be determined to be different from zero by a single measurement at a stated level of probability.

Flow Proportioned sample is a composite sample with the sample volume proportional to the effluent flow.

Furrow Stream is the volume, in gallons per unit time, usually per minute, of wastewater discharged into the furrow.

GPD means gallons per day.

GPY means gallons per year.

Grab Sample is a single sample taken at neither a set time nor flow.

MGD means million gallons per day.

Mg/l is a unit of measurement and means milligrams per liter.

Monthly Monitoring Frequency refers to a calendar month. When required by this permit, an analytical result, reading, value or observation must be reported for that period if a discharge occurs during that period.

POTW is a publicly owned treatment works.

Quantification Level means the measurement of the concentration of a contaminant obtained by using a specified laboratory procedure calculated at a specified concentration above the detection level. It is considered the lowest concentration at which a particular contaminant can be quantitatively measured using a specified laboratory procedure for monitoring of the contaminant.

PART II

Quarterly Monitoring Frequency refers to a three month period, defined as January through March, April through June, July through September, and October through December. When required by this permit, an analytical result, reading, value or observation must be reported for that period if a discharge occurs during that period.

Report means there is no limit associated with the individual substance for the medium that is being sampled, that the permittee must only report the result of the laboratory analysis.

Weekly Monitoring Frequency refers to a calendar week which begins on Sunday and ends on Saturday. When required by this permit, an analytical result, reading, value or observation must be reported for that period if a discharge occurs during that period.

24-Hour Composite sample is a flow proportioned composite sample consisting of hourly or more frequent portions that are taken over a 24-hour period.

PART II

As Applicable:

1. Start-up Notification

If the permittee will not discharge during the first 60 days following the effective date of this permit, the permittee shall notify the Department within 14 days following the effective date of this permit, and then 60 days prior to the commencement of the discharge.

2. Compliance Dates Notification

Within 14 days of every compliance date specified in this permit, the permittee shall submit a written notification to the Department indicating whether or not the particular requirement was accomplished. If the requirement was not accomplished, the notification shall include an explanation of the failure to accomplish the requirement, actions taken or planned by the permittee to correct the situation, and an estimate of when the requirement will be accomplished. If a written report is required to be submitted by a specified date and the permittee accomplishes this, a separate written notification is not required.

3. Notification of Changes in Discharge, Treatment or Facility Operations

If proposing to modify the quantity or effluent characteristics of the discharge or the treatment process for the discharge, the permittee shall notify the Department of the proposed modification prior to its occurrence. Significant modifications require the permittee to submit an application. A permit modification shall be processed in accordance with applicable rules and laws prior to implementation of the modification.

4. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which the authorized discharge emanates, the permittee shall submit to the Department 30 days prior to the actual transfer of ownership or control a written agreement between the current permittee and the new permittee containing: 1) the legal name and address of the new owner; 2) a specific date for the effective transfer of permit responsibility, coverage and liability; and 3) a certification of the continuity of or any changes in operations, wastewater discharge, or wastewater treatment.

If the new permittee is proposing changes in operations, wastewater discharge, or wastewater treatment, the Department may propose modification of this permit in accordance with applicable laws and rules.

5. Electronic Reporting

Upon notice by the Department that electronic reporting tools are available for specific reports or notifications, the permittee shall submit all such reports or notifications as required by this permit, electronically.

6. Representative Samples

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. Guidance on how to collect representative samples is contained in Guidesheet III, "Characterization of Wastewater", which is available via the internet at <http://www.deq.state.mi.us/documents/deq-wmd-gwp-P22GuidshtIII.pdf>.

7. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations promulgated pursuant to either SW-846, 3rd edition, September 1986, "Test Methods for the Evaluation of Solid Waste, Physical-Chemical Methods", or Section 304(h) of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq), 40 CFR Part 136 - Guidelines Establishing Test Procedures for the Analysis of Pollutants, unless specified otherwise in this permit. Requests to use test procedures not defined here shall be submitted to the Department for review and approval. The permittee shall periodically calibrate and perform maintenance procedures on all analytical instrumentation at intervals to ensure accuracy of measurements. The calibration and maintenance shall be performed as part of the permittee's laboratory Quality Control/Quality Assurance program.

PART II

8. Instrumentation

The permittee shall periodically calibrate and perform maintenance procedures on all monitoring instrumentation at intervals to ensure accuracy of measurements.

9. Recording Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information: 1) the exact place, date, and time of measurement or sampling; 2) the person(s) who performed the measurement or sample collection; 3) the dates the analyses were performed; 4) the person(s) who performed the analyses; 5) the analytical techniques or methods used; 6) the date of and person responsible for equipment calibration; and 7) the results of all required analyses.

10. 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 Department.

11. 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 Compliance Monitoring Report. Such increased frequency shall also be indicated.

Monitoring required pursuant to Part 41 of the NREPA or Rule 35 of the Mobile Home Park Commission Act (1987 PA 96) for assurance of proper facility operation shall be submitted as required by the Department.

12. Permit Monitoring Requirements

Pursuant to Rule 323.2223(1), the Department may modify the effluent or groundwater monitoring parameters or frequency requirements of this permit. The permittee may request a modification of the parameters or frequency of monitoring of this permit with adequate supporting documentation.

13. Spill Notification

The permittee shall immediately report any release of any polluting material which occurs to the surface waters or groundwater of the state, unless the permittee has determined that the release is not in excess of the threshold reporting quantities specified in the Part 5 Rules (Rules 324.2001 through 324.2009 of the Michigan Administrative Code), by calling the Department at the number indicated on the first page of this permit, or if the notice is provided after regular working hours call the Department's 24-hour Pollution Emergency Alerting System telephone number, 1-800-292-4706 (calls from out-of-state dial 1-517-373-7660).

Within ten (10) days of the release, the permittee shall submit to the Department a full written explanation as to the cause of the release, the discovery of the release, response (clean-up and/or recovery) measures taken, and preventative measures taken or a schedule for completion of measures to be taken to prevent reoccurrence of similar releases.

14. 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 Department 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;

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- b) that the permitted wastewater treatment facility was, at the time, being properly operated; and
- 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 this permit.

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

15. Bypass Prohibition and Notification

- a) Bypass Prohibition - Bypass is prohibited unless:
 - (1) bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (2) there were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass; and
 - (3) the permittee submitted notices as required under 15.b) or 15.c) below.
- b) Notice of Anticipated Bypass - If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the Department, if possible at least ten (10) days before the date of the bypass, and provide information about the anticipated bypass as required by the Department. The Department may approve an anticipated bypass, after considering its adverse effects, if it will meet the three (3) conditions listed in 15.a) above.
- c) Notice of Unanticipated Bypass - The permittee shall submit notice to the Department of an unanticipated bypass by calling the Department at the number indicated on the first page of this permit (if the notice is provided after regular working hours, use the following number: 1-800-292-4706) as soon as possible, but no later than 24 hours from the time the permittee becomes aware of the circumstances.
- d) Written Report of Bypass - A written submission shall be provided within five (5) working days of commencing any bypass to the Department, and at additional times as directed by the Department. The written submission shall contain a description of the bypass and its cause; the period of bypass, including exact dates and times, and if the bypass has not been corrected, the anticipated time it is expected to continue; steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass; and other information as required by the Department.
- e) Bypass Not Exceeding Limitations - The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of 15.a), 15.b), 15.c), and 15.d), above. This provision does not relieve the permittee of any notification responsibilities under Part II, Section 13 of this permit.
- f) Definitions
 - (1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
 - (2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

16. Facilities 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. Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures.

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17. Power Failures

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

- a) provide an alternative power source sufficient to operate facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit; or
- 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.

18. Containment Facilities

The permittee shall provide facilities for containment of any accidental losses of polluting materials in accordance with the requirements of the Part 5 Rules (Rules 324.2001 through 324.2009 of the Michigan Administrative Code). For a Publicly Owned Treatment Work (POTW), these facilities shall be approved under Part 41 of the NREPA.

19. Waste Treatment Residues

Residuals (i.e. solids, sludges, biosolids, filter backwash, scrubber water, ash, grit or other pollutants) removed from or resulting from treatment or control of wastewaters, shall be disposed of in an environmentally compatible manner and according to applicable laws and rules. These laws may include, but are not limited to, the NREPA, Part 31, Water Resources Protection; Part 55, Air Pollution Control; Part 111, Hazardous Waste Management; Part 115, Solid Waste Management; Part 121, Liquid Industrial Wastes; Part 301, Inland Lakes and Streams; and Part 303, Wetland Protection. Such disposal shall not result in any unlawful pollution of the air, surface waters or groundwater of the state.

20. Treatment System Closure

- a) In the event that discharges from a treatment system are planned to be eliminated, the permittee shall do the following:
 - (1) Eliminate all physical threats associated with discharge related facilities not later than five (5) days after use of the facility has ceased.
 - (2) Not less than 75 days before cessation of discharge related activities, characterize any wastewater, sediments and sludges related to the discharge, pursuant to Rule 323.2226(4)(a)(i-iii).
- b) Within 30 days of completing the characterization, the discharger shall submit a closure plan to the Department for review and approval that describes how the wastewater, sediments and sludges associated with the discharge will be handled in accordance with Part 31, Part 115, Part 111, or Part 201, as appropriate.
- c) Closure activities must be initiated within 30 days of Department approval of the Closure Plan, and must be completed within one (1) year of approval of the Closure Plan.
- d) If the groundwater exceeds a standard established by the Department that would result in the site qualifying as a facility under Part 201, then the discharger shall comply with the requirements of Part 201, as applicable.
- e) The Department may require post closure monitoring activities to evaluate the effectiveness of the closure activities. Any wastewater or residual disposal inconsistent with the approved plan shall be considered a violation of this permit. After proper closure of the treatment system, this permit may be terminated.
- f) The discharger must certify completion of the approved closure plan. Certification shall be by a qualified person described as follows:
 - (1) An engineer licensed under Act No. 299 of the Public Acts of 1980, as amended, being §339.101 et seq. Of the Michigan Compiled Laws, and known as the occupational code.
 - (2) A professional geologist certified by the American Institute of Professional Geologists, 7828 Vance Drive, Suite 103, Arvada, Colorado 80003.

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- (3) A professional hydrologist certified by the American Institute of Hydrology, 2499 Rice Street, Suite 135, St. Paul, Minnesota 55113.
- (4) A groundwater professional certified by the National Ground Water Association, Association of Groundwater Scientists and Engineers Division, 601 Dempsey Road, Westerville, Ohio 43081.
- (5) Another groundwater professional certified by an organization approved by the Department.

21. Right of Entry

The permittee shall allow the Department or any agent appointed by the Department, upon the presentation of credentials:

- a) to enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and
- b) at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect process facilities, treatment works, monitoring methods and equipment regulated or required under this permit; and to sample any effluent discharge, discharge of pollutants, and groundwater monitoring wells and soils associated with the discharge.

22. Untreated or Partially Treated Sewage Discharge Requirements

In accordance with Section 324.3112a of the Michigan Act, if untreated sewage, including sanitary sewer overflows (SSO) and combined sewer overflows (CSO), or partially treated sewage is directly or indirectly discharged from a sewer system onto land or into the waters of the state, the entity responsible for the sewer system shall immediately, but not more than 24 hours after the discharge begins, notify, by telephone, the Department, local health departments, a daily newspaper of general circulation in the county in which the permittee is located, and a daily newspaper of general circulation in the county or counties in which the municipalities whose waters may be affected by the discharge are located that the discharge is occurring.

At the conclusion of the discharge, written notification shall be submitted in accordance with and on the "CSO/SSO Reporting Form" available via the internet at: http://www.michigan.gov/deq/0,1607,7-135-3313_3682_3715---.00.html, or, alternatively for combined sewer overflow discharges, in accordance with notification procedures approved by the Department.

In addition, in accordance with Section 324.3112a of the Michigan Act, each time a discharge of untreated sewage or partially treated sewage occurs, the permittee shall test the affected waters for *Escherichia coli* to assess the risk to the public health as a result of the discharge and shall provide the test results to the affected local county health departments and to the Department. The testing shall be done at locations specified by each affected local county health department but shall not exceed 10 tests for each separate discharge event. The affected local county health department may waive this testing requirement, if it determines that such testing is not needed to assess the risk to the public health as a result of the discharge event. The results of this testing shall be submitted with the written notification required above, or, if the results are not yet available, submit them as soon as they become available. This testing is not required, if the testing has been waived by the local health department, or if the discharge(s) did not affect surface waters.

Permittees accepting sanitary or municipal sewage from other sewage collection systems are encouraged to notify the owners of those systems of the above reporting and testing requirements.

23. Availability of Reports

Except for data determined to be confidential under Rule 323.2128 of the Michigan Administrative Code, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. 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 Sections 3112, 3115, 4106 and 4110 of the NREPA.

PART II

24. Construction Certification

On or before 30 days following completion of construction of any new wastewater treatment facilities after issuance of this permit, pursuant to Rule 323.2218(4)(a), the permittee shall submit a certification that a quality control and quality assurance program was utilized and the facilities constructed were built consistent with standard construction practices to comply with the permit and the NREPA. This certification shall be by an engineer licensed under Act 299 of the Public Acts of 1980.

25. Termination

This permit shall remain in full force and effect until terminated by a written Termination Notice (TN) issued by the Department. Prior to issuance of a written TN, the Permittee shall submit a written request to the Department for termination of this permit.

PART III DISCHARGE PROHIBITIONS

1. Discharge to the Surface Waters

This permit does not authorize any discharge to the surface waters. The permittee is responsible for obtaining any permits required by federal or state laws or local ordinances.

2. 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.

3. 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 as may be required by law.

4. Duty to Comply

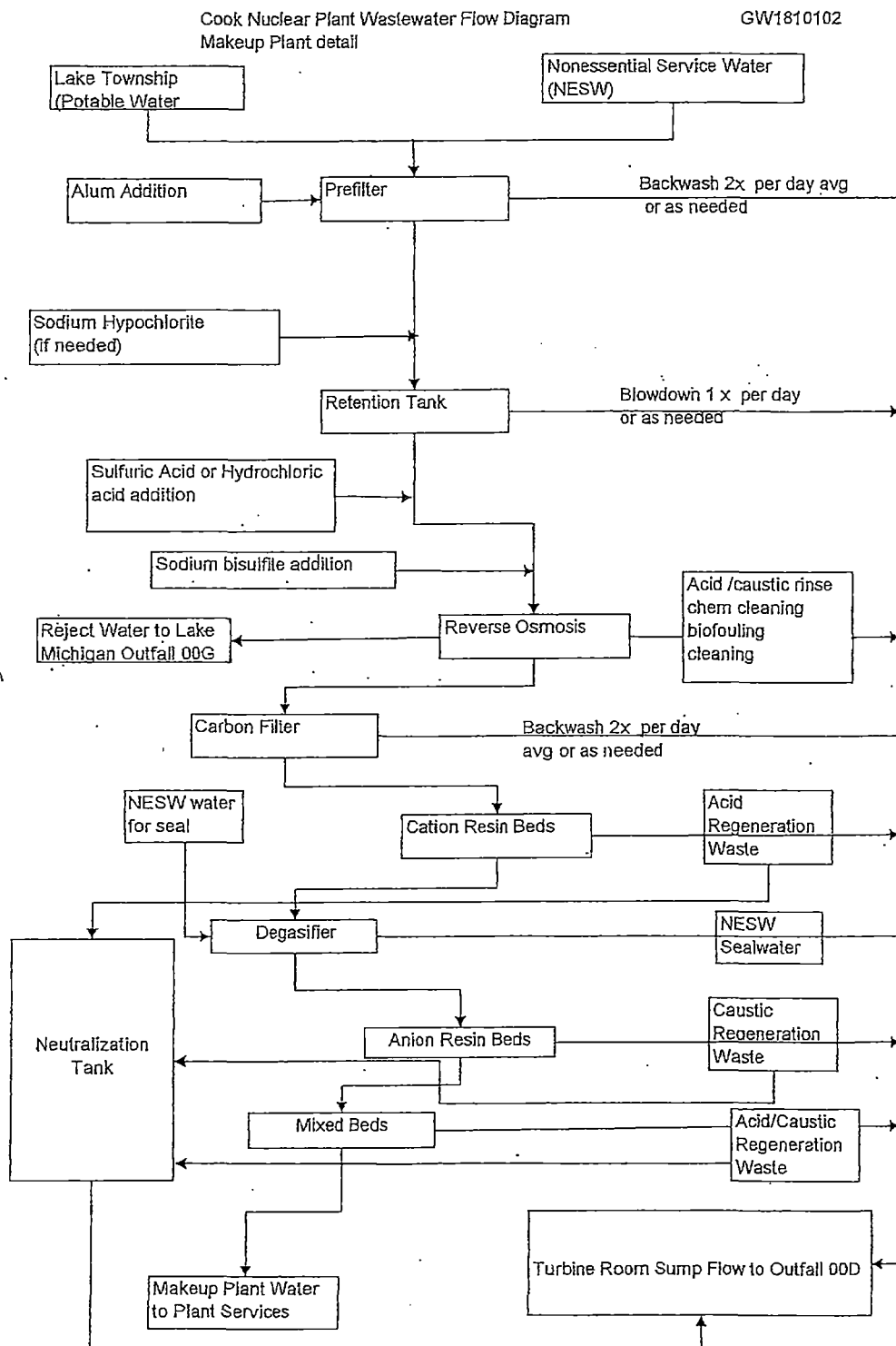
All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

It is the duty of the permittee to comply with all the terms and conditions of this permit. Any noncompliance with the Effluent Limitations, Conditions, or terms of this permit constitutes a violation of the NREPA and constitutes grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of an application for permit renewal.

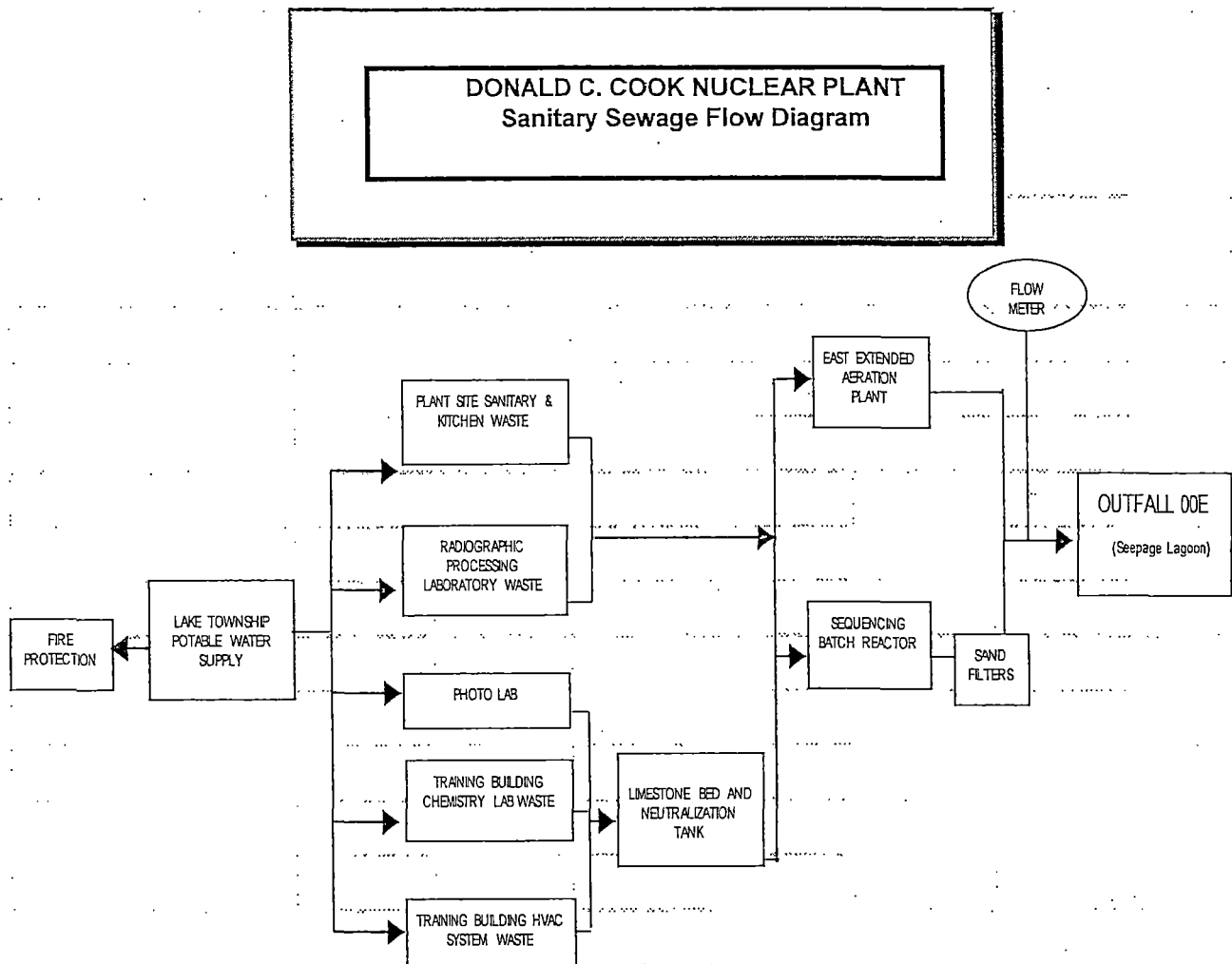
5. Civil and Criminal Liability

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 the permittee's control, such as accidents, equipment breakdowns, or labor disputes.

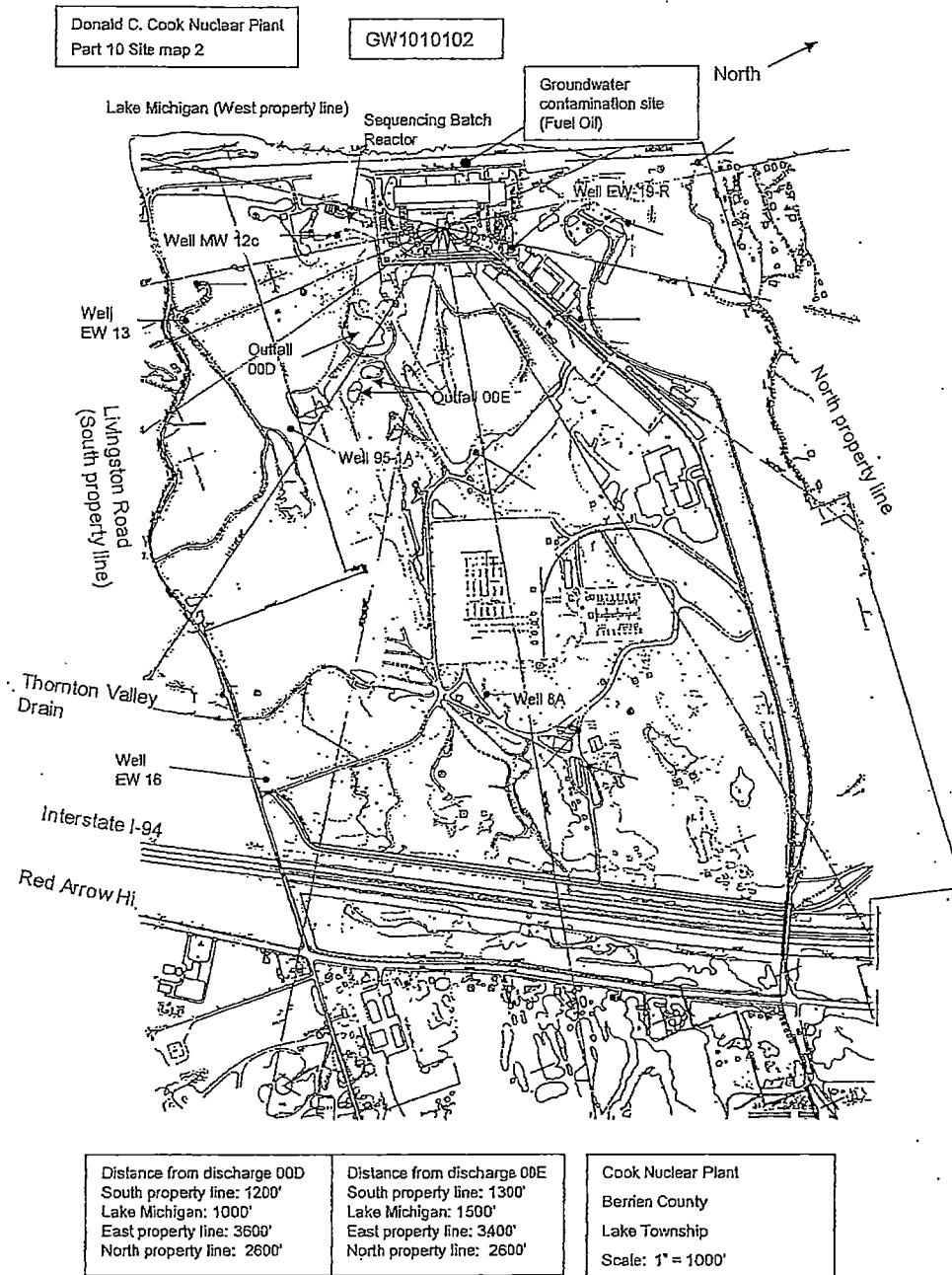
ATTACHMENT I



ATTACHMENT II



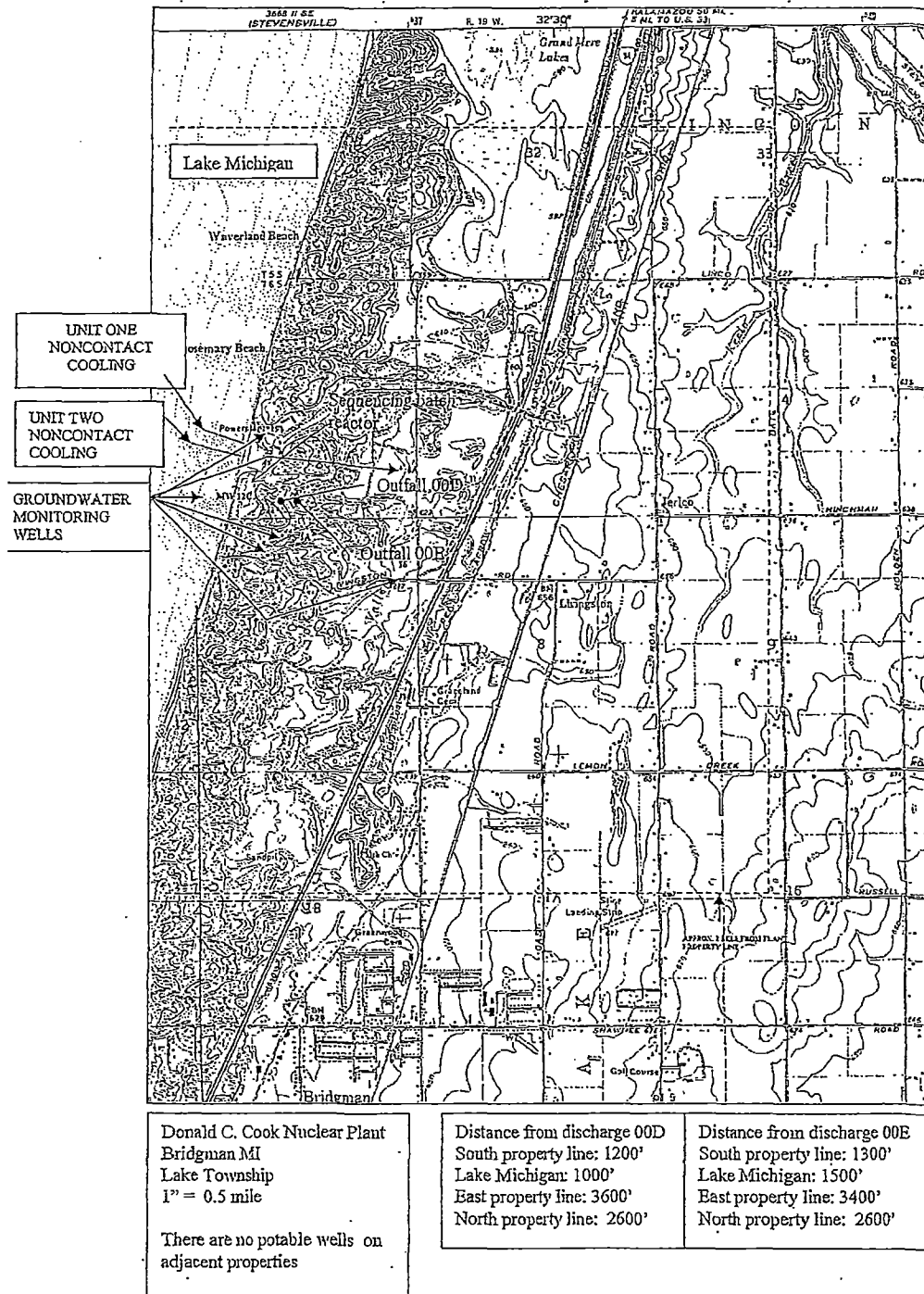
ATTACHMENT III



ATTACHMENT IV

Donald C. Cook Nuclear Plant
Part 10 Site Map #2

GW1810102



ATTACHMENT V

Metals	Chemical Abstract Service Number	Water Reporting Limits (ug/L)	EPA Analytical Method or SW-846	R323.2222 Discharge Standard (ug/L)
Aluminum	7429905	50	200.8/6020A	150
Antimony	7440360	1	200.8/6020A	3
Arsenic	7440382	1	200.8/6020A	5
Barium	7740393	5	200.8/6020A	1000
Beryllium	7440417	1	200.8/6020A	2
Boron	7740428	20	200.7/6010C	250
Cadmium	7740439	0.2	200.8/6020A	2.5
Calcium	8047594	1000	SM 3111B/7140	
Chromium	7740473	1	200.8/6020A	50
Cobalt	7740484	15	200.8/6020A	20
Copper	7740508	1	200.8/6020A	500
Iron	7439896	20	200.7/6010C	300
Lead	7439921	1	200.8/6020A	2
Lithium	7439932	10	200.8/6020A	85
Magnesium	7439954	1000	SM 3111B/7450	200,000
Manganese	7439965	5	200.8/6020A	50
Mercury	7439976	0.2	245.1/7470A, 7471A	1
Molybdenum	7439987	25	200.8/6020A	36.5
Nickel	7440020	2	200.8/6020A	50
Potassium	7440097	100	SM 3111B/7610	
Selenium	7782492	1	200.8/6020A	25
Silver	7440224	0.2	200.8/6020A	17
Strontium	7740246	5	200.8/6020A	2300
Thallium	7740280	2	200.8/6020A	2
Titanium	7440326	10	200.8/6020A	
Vanadium	7740622	2	200.8/6020A	2.2
Zinc	7740666	10	200.8/6020A	

ATTACHMENT VI

Volatile Organics	Chemical Abstract Service Number	Water Reporting Limits (ug/L)	EPA Analytical Method or SW-846	R323.2222 Discharge Standard (ug/L)
1,1,1,2-Tetrachloroethane	630206	1	624/8260	77
1,1,1-Trichloroethane	71556	1	624/8260	15
1,1,2,2-Tetrachloroethane	79345	1	624/8260	8.5
1,1,2-Trichloroethane	79005	1	624/8260	5
1,1-Dichloroethane	75343	1	624/8260	880
1,1-Dichloroethene	75354	1	624/8260	7
1,2,3-Trichlorobenzene	87616	5	624/8260	
1,2,3-Trichloropropane	96184	1	624/8260	42
1,2,3-Trimethylbenzene	526738	1	624/8260	
1,2,4-Trichlorobenzene	120821	5	624/8260	15
1,2,4-Trimethylbenzene	95636	1	624/8260	63
1,2-Dibromo-3-chloropropane	96128	5	624/8260	
1,2-Dibromoethane (EDB)	80977	1	624/8260	
1,2-Dichlorobenzene	95501	1	624/8260	25
1,2-Dichloroethane	107062	1	624/8260	5
cis-1,2-Dichloroethene	156592	1	624/8260	5
trans-1,2-Dichloroethene	156605	1	624/8260	5
1,2-Dichloropropane	78875	1	624/8260	5
1,3,5-Trimethylbenzene (Mesitylene)	108678	1	624/8260	72
1,3-Dichlorobenzene	541731	1	624/8260	6.6
1,3-Dichloropropene (cis)	542756	1	624/8260	
1,3-Dichloropropene (trans)	99614025	1	624/8260	
1,4-Dichloro-2-butene (trans)	764410	5	624/8260	
1,4-Dichlorobenzene	106467	1	624/8260	15
2-Butanone (MEK)	78933	5	624/8260	450
2-Hexanone	591786	5	624/8260	1000
2-Methylnaphthalene	91576	5	624/8260	260
2-Propanone (Acetone)	67641	20	624/8260	730
4-Methyl-2-pentanone (MIBK)	108101	5	624/8260	1800
Acrylonitrile	107131	5	624/8260	2.6
t-Amyl Methyl Ether (TAME)	994058	5	624/8260	
Benzene	71432	1	624/8260	5
Bromobenzene	108864	1	624/8260	18
Bromochloromethane	83847498	1	624/8260	
Bromodichloromethane	75274	1	624/8260	20 (THM)
Bromoform	75252	1	624/8260	20 (THM)
Bromomethane	74839	5	624/8260	10
t-Butyl Alcohol	75650	50	624/8260	3900
n-Butylbenzene	104518	1	624/8260	80
sec-Butylbenzene	135988	1	624/8260	80
t-Butylbenzene	98066	1	624/8260	80
Carbon Disulfide	75150	1	624/8260	800
Carbon Tetrachloride	56235	5	624/8260	5
Chlorobenzene	108907	1	624/8260	15
Chloroethane	75003	5	624/8260	430
Chloroform	67663	1	624/8260	20 (THM)
Chloromethane	74873	5	624/8260	260
Cyclohexane	108941	5	624/8260	33,000
Dibromochloromethane	124481	1	624/8260	20 (THM)
Dibromomethane	74953	1	624/8260	80
Dichlorofluoromethane	75718	5	624/8260	40
Diethyl Ether	60297	5	624/8260	5
Diisopropyl Ether	108203	5	624/8260	30
Ethylbenzene	100414	1	624/8260	25
Ethyl-t-Butyl Ether (ETBE)	637923	5	624/8260	
Hexachloroethane	67721	5	624/8260	7.3
Isopropyl Benzene	98828	1	624/8260	800
p-Isopropyl Toluene (p-Cymene)	99876	1	624/8260	
Methyl Iodide (Iodomethane)	74884	1	624/8260	
Methyl-t-Butyl Ether (MTBE)	1634044	1	624/8260	40
Methylene Chloride	75092	5	624/8260	5

ATTACHMENT VI

(continued)

Volatile Organics (Cont.)	Chemical Abstract Service Number	Water Reporting Limits (ug/L)	EPA Analytical Method or SW-846	R323.2222 Discharge Standard (ug/L)
			624/8260	15
Naphthalene	91203	5	624/8260	80
n-Propylbenzene	103651	1	624/8260	20
Styrene	100425	1	624/8260	5
Tetrachloroethylene	127184	1	624/8260	95
Tetrahydrofuran	109999	5	624/8260	35
Toluene	108883	1	624/8260	5
Trichloroethylene	79018	1	624/8260	2600
Trichlorofluoromethane	75694	1	624/8260	2
Vinyl Chloride	75014	1	624/8260	35 (m+o+p)
m & p-Xylene	1330207	2	624/8260	35 (m+o+p)
o-Xylene	1330207	1	624/8260	