

PERMIT NO. MI0055735

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY



**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 "Federal Act"), Michigan Act 451, Public Acts of 1994, as amended (the "Michigan Act"), Parts 31 and 41, and Michigan Executive Order 2011-1,

Kent County Department of Aeronautics
5500 44th Street, SE
Grand Rapids, Michigan 49512

is authorized to discharge from the **Gerald R. Ford International Airport** located at

5500 44th Street, SE
Grand Rapids, Michigan 49512

designated as **Gerald R Ford Intl Airport-GR**

through an unnamed tributary to the Thornapple River (locally known as Trout Creek), an unnamed tributary to the Thornapple River, the Thornapple River, and an unnamed tributary to Plaster Creek in accordance with effluent limitations, monitoring requirements, and other conditions set forth in this permit.

This permit is based on a complete application submitted on April 1, 2009.

This modified permit takes effect immediately. 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, **October 1, 2014**. 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 of Environmental Quality (Department) by **April 4, 2014**.

Issued December 27, 2010. Based on an application amendment submitted on May 6, 2013, this permit was modified on August 1, 2013.


Philip Argiroff, Chief
Permits Section
Water Resources Division

PERMIT FEE REQUIREMENTS

In accordance with Section 324.3120 of the Michigan Act, the permittee shall make payment of an annual permit fee to the Department for each October 1 the permit is in effect regardless of occurrence of discharge. The permittee shall submit the fee in response to the Department's annual notice. The fee shall be postmarked by January 15 for notices mailed by December 1. The fee is due no later than 45 days after receiving the notice for notices mailed after December 1.

Annual Permit Fee Classification: Industrial-Commercial Minor, low-flow (IP).

In accordance with Section 324.3118 of the Michigan Act, the permittee shall make payment of an annual storm water fee to the Department for each January 1 the permit is in effect regardless of occurrence of discharge. The permittee shall submit the fee in response to the Department's annual notice. The fee shall be postmarked by March 15 for notices mailed by February 1. The fee is due no later than 45 days after receiving the notice for notices mailed after February 1.

ANTIDegradation

The Department has determined that the permittee's Antidegradation Demonstration, based on information required by Subrule (4) of R323.1098, shows that lowering of water quality is necessary to support the identified important social and economic development in the area. The permitted discharge shall not lower the existing water quality of the receiving water below State Water Quality Standards. The proposed discharge to Outfall 011 will be of better quality than what is currently authorized to be discharged to the same watershed. This determination is solely for purposes of satisfying state water quality regulations and is not intended to supplant local requirements, including land use or zoning laws. It is not, and should not be construed as, a finding by the Department that the proposed development meets local requirements or ordinances.

CONTACT INFORMATION

Unless specified otherwise, all contact with the Department required by this permit shall be made to the Grand Rapids District Supervisor of the Water Resources Division. The Grand Rapids District Office is located at the State Office Building, Fifth Floor, 350 Ottawa, NW, Unit 10, Grand Rapids, Michigan 49503-2341, Telephone: 616-356-0500, Fax: 616-356-0202.

CONTESTED CASE INFORMATION

Any person who is aggrieved by this permit may file a sworn petition with the Office of Regulatory Reinvention within 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.

SPECIAL INSTRUCTIONS/NOTIFICATIONS

Note: Pursuant to Executive Order 2011-1, all references to the Department in this permit should now be interpreted as the "Department of Environmental Quality" and all references to the "Water Bureau" should now be interpreted as the "Water Resources Division."

PART I

Section A. Limitations and Monitoring Requirements

1. Interim Effluent Limitations, Monitoring Point 001A

During the period beginning on the effective date of this permit and lasting until the discharge is redirected to Outfall 011, the permittee is authorized to discharge an unspecified amount of storm water from Monitoring Point 001A through Outfall 001 to an unnamed tributary to the Thornapple River (locally known as Trout Creek), provided that the permittee is in full compliance with ADF Best Management Practices (Part 1.A.9.) and the Nuisance Biofilm Elimination and Prevention Program (Part 1.A.12.) in this permit. Such discharges shall be limited and monitored by the permittee as specified below.

<u>Parameter</u>	<u>Maximum Limits for Quantity or Loading</u>			<u>Maximum Limits for Quality or Concentration</u>			<u>Monitoring Frequency</u>	<u>Sample Type</u>
	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>		
Flow (10/1 – 5/31)	(report)	(report)	MGD	---	---	---	Daily	Report Total Daily Flow
Flow (6/1 – 9/30)	(report)	(report)	MGD	---	---	---	Monthly	Report Total Daily Flow
Carbonaceous Biochemical Oxygen Demand (CBOD ₅)	---	(report)	lbs/day	---	(report)	mg/l	*1	24-Hr Composite
Outfall Observation	(report)	---	---	---	---	---	*1	Visual
				<u>Minimum Daily</u>	<u>Maximum Daily</u>			
pH	---	---	---	6.5	9.0	S.U.	*1	Grab

*1 - For Monitoring Frequency see Part 1.A.1. h. & i.

- a. **Narrative Standard**
The receiving water shall contain no turbidity, color, oil films, floating solids, foams, settleable solids, suspended solids, or deposits as a result of this discharge in unnatural quantities, which are or may become injurious to any designated use.
- b. **Nutrient Restriction**
Nutrient discharges shall be restricted to the extent necessary to prevent the stimulation of growths of aquatic rooted, attached, suspended, and floating plants, fungi or bacteria which are or may become injurious to any designated use.
- c. **Monitoring Location**
Samples, measurements, and observations taken in compliance with the monitoring requirements above shall be taken prior to discharge to the unnamed tributary to the Thornapple River.
- d. **Outfall Observation**
Any unusual characteristics of the discharge (i.e., unnatural turbidity, color, oil film, floating solids, foams, settleable solids, suspended solids, or deposits) shall be reported within 24 hours to the Department followed with a written report within five (5) days detailing the findings of the investigation and the steps taken to correct the condition.

PART I**Section A. Limitations and Monitoring Requirements**

e. Special Definitions used in this permit

"Anti-icing and De-icing or De-icer Fluids/Materials (ADF)" means substances or chemicals applied to aircraft to anti-ice or de-ice those surfaces.

"Best Management Practices (BMPs)" means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the state. BMPs also include treatment requirements, operating procedures, and practice to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage."

f. ADF Discharge Prohibition

On or before October 1, 2015, the permittee shall cease the discharge of ADF through Outfall 001, unless the Nuisance Biofilm Elimination and Prevention Program (Part I.A.12) results in the elimination of GFIA's contribution to the nuisance biofilm in the unnamed tributary to the Thornapple River.

g. Water Treatment Additives

This permit does not authorize the discharge of water treatment additives without approval from the Department. Approval of water treatment additives is authorized under separate correspondence. Water treatment additives include any material that is added to water used at the facility or to a wastewater generated by the facility to condition or treat the water. In the event a permittee proposes to discharge water additives, including an increased discharge concentration of a previously approved water additive, the permittee shall submit a request to the Department for approval. See Part I.A.15. for information on requesting water treatment additive use.

h. Storm Event Monitoring

CBOD₅ shall be monitored a minimum of once per month during deicing discharge events between October 1 and May 31 of each year. A deicing discharge event is defined as a weather forecast for a predicted snowfall of at least 1 inch, or freezing precipitation anticipated to result in significant deicing activities at the airport. Monitoring shall begin immediately upon declaration of an event, and shall continue for the duration of five (5) days. ADF discharge events shall be sampled to capture peak ADF concentrations or loadings. Date, description, and duration of the related storm events with the precipitation measurement or estimate shall be reported. Samples should be collected as 24-hr composite samples and analyzed using United States Environmental Protection Agency (USEPA) approved methods. The Outfall Observation, measured flow, and pH shall be recorded daily for each storm event.

i. Dry Weather Monitoring: CBOD₅, pH, Outfall Observation

Dry weather samples shall not be collected within 72 hours of a deicing discharge event. CBOD₅ samples shall be collected monthly as 24-hr composite samples and analyzed using a USEPA approved method. Outfall Observation, flow, and pH shall be recorded for each dry weather monitoring event.

PART I

Section A. Limitations and Monitoring Requirements

2. Final Effluent Limitations, Monitoring Point 001A

During the period beginning with the commencement of a discharge to Outfall 011 and lasting until the expiration date of this permit, the permittee is authorized to discharge an unspecified amount of storm water and intercepted sub-surface flow from Monitoring Point 001A through Outfall 001 to an unnamed tributary to the Thornapple River (locally known as Trout Creek), provided that the permittee is in full compliance with ADF Best Management Practices (Part I.A.9.) and the Nuisance Biofilm Elimination and Prevention Program (Part 1.A.12.) in this permit. Such discharges shall be limited and monitored by the permittee as specified below.

<u>Parameter</u>	<u>Maximum Limits for Quantity or Loading</u>			<u>Maximum Limits for Quality or Concentration</u>			<u>Monitoring Frequency</u>	<u>Sample Type</u>
	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>		
Flow	(report)	(report)	MGD	---	---	---	Monthly	Report Total Daily Flow
Outfall Observation	(report)	---	---	---	---	---	Monthly	Visual

- a. **Narrative Standard**
The receiving water shall contain no turbidity, color, oil films, floating solids, foams, settleable solids, suspended solids, odor, or deposits as a result of this discharge in unnatural quantities, which are or may become injurious to any designated use.
- b. **Outfall Observation**
Any unusual characteristics of the discharge (i.e., unnatural turbidity, color, oil film, floating solids, foams, settleable solids, suspended solids, or deposits) shall be reported within 24 hours to the Department followed with a written report within five (5) days detailing the findings of the investigation and the steps taken to correct the condition. The outfall observation shall also report any propagation of aquatic rooted, attached, suspended, and floating plants, fungi or bacteria in concentrations that are or may become injurious to any designated use.
- c. **Anti-icing and De-icing or De-icer Fluids/Materials Discharge Prohibition**
Beginning with the initiation of discharge to Outfall 011, the permittee shall cease the discharge of ADF through Outfall 001, unless the Nuisance Biofilm Elimination and Prevention Program (Part I.A.12.) results in the elimination of GFIA's contribution to the nuisance biofilm in the unnamed tributary to the Thornapple River.

During the de-icing season, the permittee shall direct the unspecified amount of storm water and intercepted sub-surface flow through the detention basin and treatment area prior to being discharged through Outfall 011. The permittee shall take appropriate measures to determine that ADF is not present in the storm water and/or intercepted sub-surface flow prior to the flow being redirected back through Outfall 001 during the non-deicing seasons.

PART I

Section A. Limitations and Monitoring Requirements

3. Interim Effluent Limitations, Monitoring Point 004A

During the period beginning on the effective date of this permit and lasting until the commencement of a discharge at Outfall 011, the permittee is authorized to discharge an unspecified amount of storm water from Monitoring Point 004A through Outfall 004 to an unnamed tributary to the Thornapple River, provided that the permittee is in compliance with ADF Best Management Practices (Part I.A.9.) in this permit. Such discharges shall be limited and monitored by the permittee as specified below.

<u>Parameter</u>	<u>Maximum Limits for Quantity or Loading</u>			<u>Maximum Limits for Quality or Concentration</u>			<u>Monitoring Frequency</u>	<u>Sample Type</u>
	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>		
Flow (10/1 – 5/31)	(report)	(report)	MGD	---	---	---	Daily	Report Total Daily Flow
Flow (6/1 – 9/30)	(report)	(report)	MGD	---	---	---	Monthly	Report Total Daily Flow
Carbonaceous Biochemical Oxygen Demand (CBOD ₅) Oct. 1 – May 31	---	(report)	lbs/day	---	(report)	mg/l	*3	24-Hr Composite
Outfall Observation	(report)	---	---	---	---	---	During ADF Sampling	Visual
				<u>Minimum Daily</u>	<u>Maximum Daily</u>			
pH	---	---	---	6.5	9.0	S.U.	During ADF Sampling	Grab

*3 - For Monitoring Frequency see Part 1.A.3.a.

- a. **Storm Event Monitoring**
 CBOD₅ shall be monitored once per month during a deicing discharge event between October 1 and May 31 of each year. A deicing discharge event is defined as a weather forecast for a predicted snowfall of at least 1 inch, or freezing precipitation anticipated to result in significant deicing activities at the airport. Monitoring shall begin immediately upon declaration of an event, and shall continue for the duration of five (5) days. ADF discharge events shall be sampled to capture peak ADF concentrations or loadings. Date, description, and duration of the related storm events with the precipitation measurement or estimate shall be reported. Samples should be collected as 24-hr composite samples and analyzed using USEPA approved methods. The Outfall Observation, measured flow, and pH shall be recorded daily for each storm event.
- b. **Narrative Standard**
 The receiving water shall contain no turbidity, color, oil films, floating solids, foams, settleable solids, suspended solids, or deposits as a result of this discharge in unnatural quantities, which are or may become injurious to any designated use.
- c. **Nutrient Restriction**
 Nutrient discharges shall be restricted to the extent necessary to prevent the stimulation of growths of aquatic rooted, attached, suspended, and floating plants, fungi or bacteria, which are or may become injurious to any designated use.

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Section A. Limitations and Monitoring Requirements

- d. **Monitoring Location**
Samples, measurements, and observations taken in compliance with the monitoring requirements above shall be taken prior to discharge to the unnamed tributary to the Thornapple River.
- e. **Outfall Observation**
Any unusual characteristics of the discharge (i.e., unnatural turbidity, color, oil film, floating solids, foams, settleable solids, suspended solids, or deposits) shall be reported within 24 hours to the Department followed with a written report within five (5) days detailing the findings of the investigation and the steps taken to correct the condition.
- f. **Water Treatment Additives**
This permit does not authorize the discharge of water treatment additives without approval from the Department. Approval of water treatment additives is authorized under separate correspondence. Water treatment additives include any material that is added to water used at the facility or to a wastewater generated by the facility to condition or treat the water. In the event that a permittee proposes to discharge water treatment additives, including an increased discharge concentration of a previously approved water treatment additive, the permittee shall submit a request to the Department for approval. See Part I.A.15. for information on requesting water treatment additive use.

4. Final Effluent Limitations, Monitoring Point 004A

During the period beginning with the commencement of a discharge at Outfall 011 and lasting until the expiration date of this permit, the permittee is authorized to discharge an unspecified amount of storm water from Monitoring Point 004A through Outfall 004 to an unnamed tributary to the Thornapple River, provided that the permittee is in compliance with ADF Best Management Practices (Part I.A.9.) in this permit. Such discharges shall be limited and monitored by the permittee as specified below.

<u>Parameter</u>	<u>Maximum Limits for Quantity or Loading</u>			<u>Maximum Limits for Quality or Concentration</u>			<u>Monitoring Frequency</u>	<u>Sample Type</u>
	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>		
Flow (10/1 – 5/31)	(report)	(report)	MGD	---	---	---	Daily	Report Total Daily Flow
Flow (6/1 – 9/30)	(report)	(report)	MGD	---	---	---	Monthly	Report Total Daily Flow
Carbonaceous Biochemical Oxygen Demand (CBOD ₅)	---	(report)	lbs/day	---	(report)	mg/l	*4	24-Hr Composite
Ammonia Nitrogen (as N)	---	(report)	lbs/day	---	(report)	mg/l	*4	24-Hr Composite
Outfall Observation	(report)	---	---	---	---	---	During ADF Sampling	Visual
				<u>Minimum Daily</u>	<u>Maximum Daily</u>			
pH	---	---	---	6.5	9.0	S.U.	During ADF Sampling	Grab
Dissolved Oxygen	---	---	---	(report)	---	mg/l	*4	Grab

*4 - For Monitoring Frequency see Part 1.A.4.a.

PART I**Section A. Limitations and Monitoring Requirements**

- a. **Storm Event Monitoring**
CBOD₅, Ammonia Nitrogen, and Dissolved Oxygen shall be monitored two times per month during distinct, separated, deicing discharge events between October 1 and May 31 of each year. A deicing discharge event is defined as a weather forecast for a predicted snowfall of at least 1 inch, or freezing precipitation anticipated to result in significant deicing activities at the airport. Monitoring shall begin immediately upon declaration of an event, and shall continue for the duration of five (5) days. ADF discharge events shall be sampled to capture peak ADF concentrations or loadings. Date, description, and duration of the related storm events with the precipitation measurement or estimate shall be reported. Samples should be collected as 24-hr composite samples and analyzed using USEPA approved methods. The Outfall Observation, measured flow, and pH shall be recorded daily for each storm event.
- b. **Narrative Standard**
The receiving water shall contain no turbidity, color, oil films, floating solids, foams, settleable solids, suspended solids, or deposits as a result of this discharge in unnatural quantities, which are or may become injurious to any designated use.
- c. **Nutrient Restriction**
Nutrient discharges shall be restricted to the extent necessary to prevent the stimulation of growths of aquatic rooted, attached, suspended, and floating plants, fungi or bacteria, which are or may become injurious to any designated use.
- d. **Monitoring Location**
Samples, measurements, and observations taken in compliance with the monitoring requirements above shall be taken prior to discharge to the unnamed tributary to the Thornapple River.
- e. **Outfall Observation**
Any unusual characteristics of the discharge (i.e., unnatural turbidity, color, oil film, floating solids, foams, settleable solids, suspended solids, or deposits) shall be reported within 24 hours to the Department, followed with a written report within five (5) days detailing the findings of the investigation and the steps taken to correct the condition.
- f. **Water Treatment Additives**
This permit does not authorize the discharge of water treatment additives without approval from the Department. Approval of water treatment additives is authorized under separate correspondence. Water treatment additives include any material that is added to water used at the facility or to a wastewater generated by the facility to condition or treat the water. In the event that a permittee proposes to discharge water treatment additives, including an increased discharge concentration of a previously approved water treatment additive, the permittee shall submit a request to the Department for approval. See Part I.A.15. for information on requesting water treatment additive use.
- g. **Monitoring Frequency Reduction for Flow, CBOD₅, Ammonia Nitrogen, Dissolved Oxygen, pH, and/or Outfall Observation**
After the submittal of two-years of data following the completion of Outfall 011, the permittee may request, in writing, Department approval of a reduction of monitoring for Outfall 004. This request shall contain an explanation as to why the reduced or eliminated monitoring or observation is appropriate. Upon receipt of written approval, and consistent with such approval, the permittee may reduce the monitoring frequency indicated in Part I.A.4. of this permit. The Department may revoke the approval for reduced or eliminated monitoring or observation at any time upon notification to the permittee.

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Section A. Limitations and Monitoring Requirements

5. Interim Effluent Limitations, Monitoring Point 007A

During the period beginning on the effective date of this permit and lasting until the commencement of a discharge at Outfall 011, the permittee is authorized to discharge an unspecified amount of storm water from Monitoring Point 007A through Outfall 007 to an unnamed tributary to Plaster Creek, provided that the permittee is in compliance with ADF Best Management Practices (Part I.A.9.) in this permit. Such discharges shall be limited and monitored by the permittee as specified below.

<u>Parameter</u>	<u>Maximum Limits for Quantity or Loading</u>			<u>Maximum Limits for Quality or Concentration</u>			<u>Monitoring Frequency</u>	<u>Sample Type</u>
	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>		
Flow (10/1 – 5/31)	(report)	(report)	MGD	---	---	---	Daily	Report Total Daily Flow
Flow (6/1 – 9/30)	(report)	(report)	MGD	---	---	---	Monthly	Report Total Daily Flow
Carbonaceous Biochemical Oxygen Demand (CBOD ₅) Oct. 1 – May 31	---	(report)	lbs/day	---	(report)	mg/l	*5	24-Hr Composite
Outfall Observation	(report)	---	---	---	---	---	During ADF Sampling	Visual
				<u>Minimum Daily</u>	<u>Maximum Daily</u>			
pH	---	---	---	6.5	9.0	S.U.	During ADF Sampling	Grab

*5 - For Monitoring Frequency see Part I.A.5.a

- a. **Storm Event Monitoring**
 CBOD₅ shall be monitored once per month during deicing discharge events between October 1 and May 31 of each year. A deicing discharge event is defined as a weather forecast for a predicted snowfall of at least 1 inch, or freezing precipitation anticipated to result in significant deicing activities at the airport. Monitoring shall begin immediately upon declaration of an event, and shall continue for the duration of five (5) days. ADF discharge events shall be sampled to capture peak ADF concentrations or loadings. Date, description, and duration of the related storm events with the precipitation measurement or estimate shall be reported. Samples should be collected as 24-hr composite samples and analyzed using USEPA approved methods. The Outfall Observation, measured flow, and pH shall be recorded daily for each storm event.
- b. **Narrative Standard**
 The receiving water shall contain no turbidity, color, oil films, floating solids, foams, settleable solids, suspended solids, or deposits as a result of this discharge in unnatural quantities, which are or may become injurious to any designated use.
- c. **Nutrient Restriction**
 Nutrient discharges shall be restricted to the extent necessary to prevent the stimulation of growths of aquatic rooted, attached, suspended, and floating plants, fungi or bacteria, which are or may become injurious to any designated use.

PART I

Section A. Limitations and Monitoring Requirements

- d. **Monitoring Location**
Samples, measurements, and observations taken in compliance with the monitoring requirements above shall be taken prior to discharge to the unnamed tributary to Plaster Creek.
- e. **Outfall Observation**
Any unusual characteristics of the discharge (i.e., unnatural turbidity, color, oil film, floating solids, foams, settleable solids, suspended solids, or deposits) shall be reported within 24 hours to the Department, followed with a written report within five (5) days detailing the findings of the investigation and the steps taken to correct the condition.
- f. **Water Treatment Additives**
This permit does not authorize the discharge of water treatment additives without approval from the Department. Approval of water additives is authorized under separate correspondence. Water treatment additives include any material that is added to water used at the facility or to a wastewater generated by the facility to condition or treat the water. In the event that a permittee proposes to discharge water additives, including an increased discharge concentration of a previously approved water treatment additive, the permittee shall submit a request to the Department for approval. See Part I.A.15. for information on requesting water treatment additive use.

6. Final Effluent Limitations, Monitoring Point 007A

During the period beginning on the commencement of a discharge at Outfall 011 and lasting until the expiration date of this permit, the permittee is authorized to discharge an unspecified amount of storm water from Monitoring Point 007A through Outfall 007 to an unnamed tributary to Plaster Creek, provided that the permittee is in compliance with ADF Best Management Practices (Part I.A.9.) in this permit. Such discharges shall be limited and monitored by the permittee as specified below.

<u>Parameter</u>	<u>Maximum Limits for Quantity or Loading</u>			<u>Maximum Limits for Quality or Concentration</u>			<u>Monitoring Frequency</u>	<u>Sample Type</u>
	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>		
Flow (10/1 – 5/31)	(report)	(report)	MGD	---	---	---	Daily	Report Total Daily Flow
Flow (6/1 – 9/30)	(report)	(report)	MGD	---	---	---	Monthly	Report Total Daily Flow
Carbonaceous Biochemical Oxygen Demand (CBOD ₅)	---	(report)	lbs/day	---	(report)	mg/l	*6	24-Hr Composite
Ammonia Nitrogen (as N)	---	(report)	lbs/day	---	(report)	mg/l	*6	24-Hr Composite
Outfall Observation	(report)	---	---	---	---	---	During ADF Sampling	Visual
				<u>Minimum Daily</u>	<u>Maximum Daily</u>			
pH	---	---	---	6.5	9.0	S.U.	During ADF Sampling	Grab
Dissolved Oxygen	---	---	---	(report)	---	mg/l	*6	Grab

*6 - For Monitoring Frequency see Part I.A.6.a

PART I**Section A. Limitations and Monitoring Requirements**

- a. **Storm Event Monitoring**
CBOD₅, Ammonia Nitrogen, and Dissolved Oxygen shall be monitored once per month during distinct, separated, deicing discharge events between October 1 and May 31 of each year. A deicing discharge event is defined as a weather forecast for a predicted snowfall of at least 1 inch, or freezing precipitation anticipated to result in significant deicing activities at the airport. Monitoring shall begin immediately upon declaration of an event, and shall continue for the duration of five (5) days. ADF discharge events shall be sampled to capture peak ADF concentrations or loadings. Date, description, and duration of the related storm events with the precipitation measurement or estimate shall be reported. Samples should be collected as 24-hr composite samples and analyzed using USEPA approved methods. The Outfall Observation, measured flow, and pH shall be recorded daily for each storm event.
- b. **Narrative Standard**
The receiving water shall contain no turbidity, color, oil films, floating solids, foams, settleable solids, suspended solids, or deposits as a result of this discharge in unnatural quantities, which are or may become injurious to any designated use.
- c. **Nutrient Restriction**
Nutrient discharges shall be restricted to the extent necessary to prevent the stimulation of growths of aquatic rooted, attached, suspended, and floating plants, fungi or bacteria, which are or may become injurious to any designated use.
- d. **Monitoring Location**
Samples, measurements, and observations taken in compliance with the monitoring requirements above shall be taken prior to discharge to the unnamed tributary to Plaster Creek.
- e. **Outfall Observation**
Any unusual characteristics of the discharge (i.e., unnatural turbidity, color, oil film, floating solids, foams, settleable solids, suspended solids, or deposits) shall be reported within 24 hours to the Department, followed with a written report within five (5) days detailing the findings of the investigation and the steps taken to correct the condition.
- f. **Water Treatment Additives**
This permit does not authorize the discharge of water treatment additives without approval from the Department. Approval of water additives is authorized under separate correspondence. Water treatment additives include any material that is added to water used at the facility or to a wastewater generated by the facility to condition or treat the water. In the event that a permittee proposes to discharge water additives, including an increased discharge concentration of a previously approved water treatment additive, the permittee shall submit a request to the Department for approval. See Part I.A.15. for information on requesting water treatment additive use.
- g. **Monitoring Frequency Reduction for Flow, CBOD₅, Ammonia Nitrogen, Dissolved Oxygen, pH, and/or Outfall Observation**
After the submittal of two-years of data following the completion of Outfall 011, the permittee may request, in writing, Department approval of a reduction of monitoring for Outfall 007. This request shall contain an explanation as to why the reduced or eliminated monitoring or observation is appropriate. Upon receipt of written approval and consistent with such approval, the permittee may reduce the monitoring frequency indicated in Part I.A.6. of this permit. The Department may revoke the approval for reduced or eliminated monitoring or observation at any time upon notification to the permittee.
- h. **Monitoring and/or Effluent Limitations for CBOD₅, Ammonia Nitrogen, and Dissolved Oxygen**
The Department may modify the monitoring requirements for CBOD₅, Ammonia Nitrogen, and Dissolved Oxygen to include effluent limitations if discharge monitoring reports indicate that there is reasonable potential to exceed water quality standards. This permit may be modified, suspended, or revoked in whole or in part during its term in accordance with applicable laws and rules.

PART I

Section A. Limitations and Monitoring Requirements

7. Final Effluent Limitations, Monitoring Point 011A

During the period beginning with the initiation of a discharge to Outfall 011 and lasting until the expiration date of this permit, the permittee is authorized to discharge an unspecified amount of treated storm water from Monitoring Point 011A through Outfall 011 to the Thornapple River (this effluent was previously discharged through Outfall 001 to an unnamed tributary to the Thornapple River and Outfall 007 to an unnamed tributary to Plaster Creek), provided that the permittee is in full compliance with ADF Best Management Practices (Part I.A.9.) and the Nuisance Biofilm Elimination and Prevention Program (Part 1.A.12.) in this permit. Such discharges shall be limited and monitored by the permittee as specified below.

<u>Parameter</u>	<u>Maximum Limits for Quantity or Loading</u>			<u>Maximum Limits for Quality or Concentration</u>			<u>Monitoring Frequency</u>	<u>Sample Type</u>
	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>		
Flow (10/1 – 5/31)	(report)	(report)	MGD	---	---	---	Daily	Report Total Daily Flow
Flow (6/1 – 9/30)	(report)	(report)	MGD	---	---	---	Monthly	Report Total Daily Flow
Carbonaceous Biochemical Oxygen Demand (CBOD ₅)	---	(report)	lbs/day	---	2,000	mg/l	*7	24-Hr Composite
CBOD ₅ - combined loads from Outfalls 004 and 011								
March 1 - 31	---	18,000	lbs/day	---	---	---	Monthly	Calculation
April 1 - 30	---	21,000	lbs/day	---	---	---	Monthly	Calculation
Oct. 1 – Nov. 30	---	3,600	lbs/day	---	---	---	Monthly	Calculation
Dec. 1 – Feb. 28	---	13,000	lbs/day	---	---	---	Monthly	Calculation
Ammonia Nitrogen (as N)	---	(report)	lbs/day	---	(report)	mg/l	*7	24-Hr Composite
Ammonia Nitrogen (as N) - combined loads from Outfalls 004 and 011								
	---	120	lbs/day	---	---	---	Monthly	Calculation
Outfall Observation	(report)	---	---	---	---	---	During ADF Sampling	Visual
				<u>Minimum Daily</u>	<u>Maximum Daily</u>			
pH	---	---	---	6.5	9.0	S.U.	During ADF Sampling	Grab
Dissolved Oxygen	---	---	---	6.0	---	mg/l	*7	Grab

*7 - For Monitoring Frequency see Part I.A.7. h. & i.

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

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- b. **Nutrient Restriction**
Nutrient discharges shall be restricted to the extent necessary to prevent the stimulation of growths of aquatic rooted, attached, suspended, and floating plants, fungi or bacteria which are or may become injurious to any designated use.
- c. **Monitoring Location**
Samples, measurements, and observations taken in compliance with the monitoring requirements above shall be taken prior to discharge to the Thornapple River.
- d. **Outfall Construction**
The permittee shall notify the Department 30-days prior to transferring the effluent from Outfall 001 to Outfall 011.
- e. **Outfall Observation**
Any unusual characteristics of the discharge (i.e., unnatural turbidity, color, oil film, floating solids, foams, settleable solids, suspended solids, or deposits) shall be reported within 24 hours to the Department, followed with a written report within five (5) days detailing the findings of the investigation and the steps taken to correct the condition.
- f. **Special Definitions used in this permit**

"Anti-icing and De-icing or De-icer Fluids/Materials (ADF)" means substances or chemicals applied to aircraft to anti-ice or de-ice those surfaces.

"Best Management Practices (BMPs)" means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the state. BMPs also include treatment requirements, operating procedures, and practice to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage."
- g. **Water Treatment Additives**
This permit does not authorize the discharge of water treatment additives without approval from the Department. Approval of water treatment additives is authorized under separate correspondence. Water treatment additives include any material that is added to water used at the facility or to a wastewater generated by the facility to condition or treat the water. In the event a permittee proposes to discharge water additives, including an increased discharge concentration of a previously approved water additive, the permittee shall submit a request to the Department for approval. See Part I.A.15. for information on requesting water treatment additive use.
- h. **Storm Event Monitoring**
CBOD₅, Ammonia Nitrogen, and Dissolved Oxygen shall be monitored two times per month during distinct, separated, deicing discharge events between October 1 and May 31 of each year. A deicing discharge event is defined as a weather forecast for a predicted snowfall of at least 1 inch, or freezing precipitation anticipated to result in significant deicing activities at the airport. Monitoring shall begin immediately upon declaration of an event, and shall continue for the duration of five (5) days. ADF discharge events shall be sampled to capture peak ADF concentrations or loadings. Date, description, and duration of the related storm events with the precipitation measurement or estimate shall be reported. Samples should be collected as 24-hr composite samples and analyzed using USEPA approved methods. The Outfall Observation, measured flow, and pH shall be recorded daily for each storm event.
- i. **Dry Weather Monitoring: pH, Outfall Observation**
Dry weather samples shall not be collected within 72 hours of a deicing discharge event. Outfall Observation, flow, and pH shall be recorded for each dry weather monitoring event.

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- j. Monitoring Frequency Reduction for Flow, CBOD₅, Ammonia Nitrogen, Dissolved Oxygen, pH, and/or Outfall Observation
After the submittal of two-years of data, the permittee may request, in writing, Department approval of a reduction of monitoring for Outfall 011. This request shall contain an explanation as to why the reduced or eliminated monitoring or observation is appropriate. Upon receipt of written approval, and consistent with such approval, the permittee may reduce the monitoring frequency indicated in Part I.A.7. of this permit. The Department may revoke the approval for reduced or eliminated monitoring or observation at any time upon notification to the permittee.
- k. Emergency Spillway Overflow
The Industrial Storm Water Detention Basin will be constructed with an emergency spillway overflow identified as Outfall 002. Discharges from Outfall 002 are not authorized. Any discharge from Outfall 002 shall be in compliance with the Bypass Prohibition and Notification requirements indicated in Part II.C.9. of this permit.

8. Deicing Materials

The use of deicing materials shall be limited to Federal Aviation Agency (FAA) approved ethylene and propylene glycol aircraft deicers, potassium acetate, sodium acetate, sodium formate, and potassium formate pavement/runway deicers, or any other materials approved by the Department. The use of urea-containing deicers is strictly prohibited for airfield pavement deicing. The permittee shall notify the Department if the permittee proposes to use deicing materials that have not been previously approved by the Department. Written approval from the Department to discharge such new materials shall be obtained prior to the discharge of these materials. This permit may be modified in accordance with applicable laws and rules if the materials or a constituent of the material require monitoring or effluent limitations.

9. ADF Best Management Practices

Best management practices shall be utilized to minimize the discharge of ADF to waters of the state, unless approved treatment or other controls are provided. Goals shall be to: 1) control ADF discharges to the fullest extent practicable, 2) minimize GFIA's contribution to nuisance biofilm growth or other forms of water quality degradation in waters of the state, and otherwise protect designated uses.

10. ADF Discharge Minimization Progress Tracking

On or before September 1 of each year, the permittee shall submit a report to the Department summarizing its ADF BMPs, including information, measures, and data to demonstrate the extent to which those BMPs are reducing ADF discharges to the unnamed tributaries to the Thornapple River, Thornapple River, and Plaster Creek. The report shall also include (for the period 10/1 to 5/31) the total gallons of Type I and Type IV ADF used, total gallons of ADF recycled, total gallons of ADF discharged or otherwise transported to the WWTP, and percent of total gallons of ADF used that was collected and prevented from being discharged to the environment.

Records shall be retained for a minimum of 3 years.

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11. Facility Contact

The "Facility Contact" was specified in the application. The permittee may replace the facility contact at any time, and shall notify the Department in writing within 10 days after replacement (including the name, address and telephone number of the new facility contact).

- a. The facility contact shall be (or a duly authorized representative of this person):
 - for a corporation, a principal executive officer of at least the level of vice president, or a designated representative, if the representative is responsible for the overall operation of the facility from which the discharge described in the permit application or other NPDES form originates,
 - for a partnership, a general partner,
 - for a sole proprietorship, the proprietor, or
 - for a municipal, state, or other public facility, either a principal executive officer, the mayor, village president, city or village manager or other duly authorized employee.
- b. A person is a duly authorized representative only if:
 - the authorization is made in writing to the Department by a person described in paragraph a. of this section; and
 - the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the facility (a duly authorized representative may thus be either a named individual or any individual occupying a named position).

Nothing in this section obviates the permittee from properly submitting reports and forms as required by law.

12. Nuisance Biofilm Elimination and Prevention Program

The permittee shall develop and implement an approvable ADF runoff management program for storm water discharges associated with industrial activity at the Gerald Ford International Airport (GFIA) to: control the GFIA's discharge of ADF from outfall 001 to the unnamed tributary to the Thornapple River, and eliminate the GFIA's contribution to nuisance biofilm growths from occurring in that waterbody.

- a. The permittee's ADF runoff management program shall be conducted in two phases:
 - 1) The permittee shall assess and implement ADF best management practice (BMP) program enhancements required by Part 1.A.7.b. immediately after the effective date of this permit
 - 2) The permittee shall develop and implement a long-term ADF runoff management program to eliminate the GFIA's contribution to the nuisance biofilm growth problem in the unnamed tributary to the Thornapple River in accordance with the schedule set forth in Part 1.A.7.c. of this permit.
- b. The permittee shall continue to enhance the existing ADF - BMP program to further reduce discharges of ADF discharged to the unnamed tributary to the Thornapple River immediately after the effective date of this permit, concurrent with the development of the long-term ADF runoff management program required by Part 1.A.7.c. of this permit. The GFIA shall develop and implement ADF BMP program enhancements, including the following:
 - 1) Identify and implement additional or improved BMPs to increase the collection of ADF impacted runoff,
 - 2) Improve BMPs in the Cargo area.
 - 3) Develop and implement a policy to ensure tenant aircraft ADF operations are conducted at designated areas,

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- 4) Develop and implement a policy and a plan to manage ADF impacted snow piles to enhance existing controls associated with ADF discharges from such snow piles to the unnamed tributary to the Thornapple River;
- 5) Engage with appropriate parties to determine the feasibility of discharging collected ADF impacted runoff to the local wastewater treatment plant (WWTP). If such an approach is deemed feasible, the GFIA shall design and implement a pilot program to further assess the long-term viability of discharging collected ADF impacted runoff to the WWTP.

- c. The permittee shall develop and implement a long-term ADF runoff management program to eliminate the GFIA's contribution to the nuisance biofilm growth problem in the unnamed tributary to the Thornapple River. The program shall be developed according to the following schedule and conditions:

On or before September 1, 2011, the permittee shall submit a report to the Department that:

- a) Describes and evaluates alternatives;
- b) Describes and provides the basis for the selected long-term ADF runoff management alternative or alternatives proposed for implementation by the permittee; and
- c) Provides a schedule for implementing the selected long-term ADF runoff management alternative(s).

The long-term ADF runoff management program shall be implemented by the permittee upon approval of the Department. Approval or actions on GFIA proposed alternatives that conform to state or federal law may not be unreasonably delayed or withheld.

- d. On or before July 1, 2011, the permittee shall implement a water quality monitoring program to accomplish the following:
 - 1) Assess nuisance biofilm growth in the unnamed tributary to the Thornapple River at the 36th Street, Thornapple River Drive, and Tricklewood Drive road crossings a minimum of every other month (July, September, November, January, March, and May) using the Field-Based Rapid Periphyton Survey (EPA Document #841-B-99-002) or another equivalent method employed by airports or other industries for similar purposes if approved by the Department. The permittee shall submit a written report of the nuisance biofilm growth assessment results to the Department within five (5) days of completing each assessment. Multiple sampling location reports may be combined and may be submitted electronically. Upon request, the Department may approve quarterly or semi-annual submittal of the assessment results. After submittal of six months of data, the Department may approve a reduction in assessment locations if assessments are sufficient to characterize the nuisance biofilm growth in the unnamed tributary. The Department may revoke the approval for reduced submittals or assessment locations at any time upon notification to the permittee.
- e. On or before September 1st of each year following Department approval of the long-term ADF runoff management alternative(s), the permittee shall submit a status report to the Department that, at a minimum, includes:
 - 1) A summary of the nuisance biofilm growth results collected from the unnamed tributary to the Thornapple River during the previous year, and
 - 2) A summary of actions taken by the GFIA during the previous year to reduce or eliminate the discharge of Type I and Type IV ADF from Outfall 001.
- f. The permittee may demonstrate that the Nuisance Biofilm Elimination Program is complete or that GFIA's contribution is removed and request that the program be considered completed. Such request and supporting justification demonstrating that GFIA has effectively eliminated its potential to contribute to the occurrence of nuisance biofilm growth in the unnamed tributary shall be submitted, in writing, to

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the Department. Upon receipt of written approval and consistent with such approval, the permittee may cease or reduce further monitoring and reporting as required by this section.

- g. The permittee should visually assess the conditions in the Thornapple River monthly near the proposed location of Outfall 011 for bacterial slimes during the months of October 1 through May 31. The evaluation of the proposed discharge location will document baseline conditions that exist prior to the re-direction of the discharge from Outfall 001 to Outfall 011.
- h. Once the discharge ceases at Outfall 001 and is initiated at Outfall 011, the permittee should continue to visually assess the unnamed tributary to the Thornapple River for bacterial slimes for the next two consecutive deicing seasons during the months of October 1 through May 31. Visual observations for bacterial slimes should be observed in the unnamed tributary of the Thornapple River upstream of the 36th Street road crossing or at a location(s) on the unnamed tributary to the Thornapple River proposed by the permittee for two consecutive deicing seasons after the discharge is initiated at Outfall 011 at a frequency consistent with final effluent monitoring during de-icing operations. If after two deicing seasons the permittee demonstrates the Nuisance Biofilm Elimination Program is complete or that GFIA's contribution is removed, the permittee can request the observations and the Nuisance Biofilm Elimination Program be considered completed. Such request and supporting justification demonstrating that GFIA has effectively eliminated its potential to contribute to the occurrence of nuisance bacterial slime growth in the unnamed tributary to the Thornapple River shall be submitted in writing, to the Department. Upon receipt of written approval and consistent with such approval, the permittee may cease or reduce further monitoring and reporting as required by this section. This recommendation is to ensure GFIA has taken appropriate actions to eliminate their contribution to the nuisance bacterial slime growth. If the visual observations in the unnamed tributary to the Thornapple River continue to find nuisance bacterial slimes at levels in violation of Rule 323.1050 of the Part 4 Michigan Water Quality Standards, the permittee must provide a response for why GFIA no longer contributes to the nuisance bacterial slime growth. This response should include a discussion of where the nuisance bacterial slimes were observed in the unnamed tributary to the Thornapple River, the distance the bacterial slimes occur, what areas of the airport property were reviewed that could potentially still contribute to the nuisance bacterial slime growth, and any actions taken to eliminate those potential sources.
- i. If nuisance bacterial slimes begin to propagate in the vicinity of Outfall 011 after the discharge begins, as a result of the airport's discharge, the permittee shall implement alternative controls to eliminate GFIA's contribution to the bacterial slimes in the Thornapple River. Redirecting the discharge of ADF to the Thornapple River does not provide the permittee any authority to degrade water quality to a point which is or may become injurious to any designated use. Nutrient discharges shall be restricted to the extent necessary to prevent the stimulation of growths of aquatic rooted, attached, suspended, and floating plants, fungi, or bacteria which are or may become injurious to any designated use. This permit may be modified in accordance with applicable laws and rules to include additional conditions and/or pollutant limitations as necessary to protect waters of the State.

13. Reopener Clause

The monitoring requirements in this permit are based on site-specific concerns regarding the discharge of ADF (Part I.A.1.e). If the criteria are reevaluated and the monitoring requirements for any parameters are to be changed, the Department may modify this permit in accordance with applicable laws and rules. The Department may modify the permit in accordance with applicable laws and rules to include additional conditions and/or pollutant limitations as a result of any evidence that the discharge is causing a negative impact that may be considered a violation of the permit narrative standard. The Department may modify the conditions and/or effluent limitations of the permit, even if the permittee is currently complying with all existing effluent limitations. This permit may be modified, suspended, or revoked in whole or in part during its term in accordance with applicable laws and rules.

PART I**Section A. Limitations and Monitoring Requirements****14. Nuisance Odor Conditions**

Nuisance odor conditions can be an indicator that proper treatment and/or degradation of ADF is not occurring. The issuance of this permit does not authorize any violations of air quality standards, nor does it constitute a release of liability of any violations of air quality standards. The permittee shall attempt to minimize any and all nuisance odor conditions associated with the discharges that may cause a negative impact on neighboring communities.

15. Request for Discharge of Water Treatment Additives

In the event a permittee proposes to discharge water additives, the permittee shall submit a request to discharge water additives 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 additives at specified levels shall be obtained prior to discharge by the permittee. Additional monitoring and reporting may be required as a condition for the approval to discharge the additive.

A request to discharge water additives shall include all of the following water additive usage and discharge information:

- a. Material Safety Data Sheet;
- b. the proposed water additive discharge concentration with supporting calculations;
- c. the discharge frequency (i.e., number of hours per day and number of days per year);
- d. the monitoring point from which the product is to be discharged;
- e. the type of removal treatment, if any, that the water additive receives prior to discharge;
- f. product function (i.e. microbiocide, flocculant, etc.);
- g. a 48-hour LC₅₀ or EC₅₀ for a North American freshwater planktonic crustacean (either *Ceriodaphnia sp.*, *Daphnia sp.*, or *Simocephalus sp.*); and
- h. 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 517-241-1346 or via the Internet at the address given above to determine if the Department has the product toxicity data required by items g. and h. above. If the Department has the data, the permittee will not need to submit product toxicity data.

PART I**Section A. Limitations and Monitoring Requirements****16. Storm Water Pollution Prevention Plan**

The permittee is authorized to discharge storm water associated with industrial activities as defined in 40 CFR 122.26(b)(14)(i-ix).

Storm water discharges are a violation of this permit if:

The receiving water will contain unnatural turbidity, color, oil films, floating solids, foams, settleable solids, suspended solids, or deposits as a result of this discharge; or:

The permittee has not implemented an acceptable Storm Water Pollution Prevention Plan (SWPPP).

a. Source Identification

To identify potential sources of significant materials that can pollute storm water and subsequently be discharged from the facility, the SWPPP shall, at a minimum, include the following:

- 1) A site map identifying the following: buildings and other permanent structures; storage or disposal areas for significant materials; secondary containment structures and descriptions of what is contained in the primary containment structures; storm water discharge outfalls (numbered or otherwise labeled for reference); location of storm water and non-storm inlets (catch basins, roof drains, conduits, drain tiles, retention pond riser pipes, and sump pumps) (numbered or otherwise labeled for reference) contributing to each outfall; location of NPDES permitted discharges other than storm water; outlines of the drainage areas contributing to each outfall; structural runoff controls or storm water treatment facilities; areas of vegetation (with brief description such as lawn, old field, marsh, wooded, etc); areas of exposed and/or erodible soils and gravel lots; impervious surfaces (roofs, asphalt, concrete); name and location of receiving water(s); and areas of known or suspected impacts on surface waters as designated under Part 201 (Environmental Response) of the Michigan Act;
- 2) A list of all significant materials that could pollute storm water. For each material listed, the SWPPP shall include each of the following descriptions:
 - a) ways in which each type of significant material has been or has reasonable potential to become exposed to storm water (e.g., spillage during handling; leaks from pipes, pumps, and vessels; contact with storage piles, contaminated materials, or soils; waste handling and disposal; deposits from dust or overspray, etc.);
 - b) an evaluation of the reasonable potential for contribution of significant materials to runoff from at least the following areas or activities: loading, unloading, and other significant material handling operations; outdoor storage, including secondary containment structures; outdoor manufacturing or processing activities; significant dust or particulate generating processes; discharge from vents, stacks and air emission controls; on-site waste treatment, storage, and disposal practices; maintenance and cleaning of vehicles, machines and equipment; sites of exposed and/or erodible soil; Sites of Environmental Contamination listed under Part 201 (Environmental Response) of the Michigan Act; waste management units and areas of concern subject to corrective action under Part 111 (Hazardous Waste Management) or Part 115 (Solid Waste Management) of the Michigan Act; areas of significant material residues; areas where animals congregate (wild or domestic) and deposit wastes; and other areas where storm water may contact significant materials;
 - c) identification of the outfall(s) and the inlet(s) contributing the significant material to each outfall through which the significant material may be discharged if released;

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- d) a listing of significant spills and significant leaks of polluting materials that occurred at areas that are exposed to precipitation or that otherwise discharge to a point source at the facility. The listing shall include spills that occurred over the three (3) years prior to the completion of the SWPPP or latest update of the SWPPP; the date, volume and exact location of release; and the action taken to clean up the material and/or prevent exposure to storm water runoff or contamination of surface waters of the state. Any release that occurs after the SWPPP has been developed shall be controlled in accordance with the SWPPP and is cause for the SWPPP to be updated as appropriate within 14 calendar days of obtaining knowledge of the spill or loss; and
 - e) the permittee shall determine whether its facility discharges storm water to a water body for which the Department has established a Total Maximum Daily Load (TMDL). If so, the permittee shall assess whether the TMDL requirements for the facility's discharge are being met through the existing SWPPP controls or whether additional control measures are necessary. The permittee's assessment of whether the TMDL requirements are being met shall focus on the effectiveness, adequacy, and implementation of the permittee's SWPPP controls; and
- 3) A summary of existing storm water discharge sampling data (if available) describing pollutants in storm water discharges at the facility. This summary shall be accompanied by a description of the suspected source(s) of the pollutants detected.
- b. Preventive Measures and Source Controls, Non-Structural
To prevent significant materials from contacting storm water at the source, the SWPPP shall, at a minimum, include the following non-structural controls:
- 1) A program which includes a schedule for routine preventive maintenance. The preventive maintenance program shall consist of routine inspections and maintenance of storm water management and control devices (e.g., cleaning of oil/water separators and catch basins, routine housekeeping activities, etc.) as well as inspecting and testing plant equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to the storm sewer system or the surface waters of the state. The routine inspection shall include areas of the facility in which significant materials have the reasonable potential to contaminate runoff. A written report of the inspection and corrective actions shall be maintained on file by the permittee, and shall be retained in accordance with Record Keeping, below;
 - 2) Good housekeeping procedures to maintain a clean, orderly facility. Good housekeeping procedures shall include routine inspections that focus on the areas of the facility that have a reasonable potential to contaminate storm water runoff from the property. The routine housekeeping inspections may be combined with the routine inspections for the preventive maintenance program. A written report of the inspection and corrective actions shall be retained in accordance with Record Keeping below;
 - 3) Regularly scheduled comprehensive site inspections. The inspections shall include, but not be limited to, the structural controls in use at the facility and the areas and equipment identified in the preventive maintenance program and good housekeeping procedures. The inspections shall also include a review of the routine preventive maintenance reports, good housekeeping inspections reports, and any other paperwork associated with the SWPPP. The comprehensive site inspection shall be conducted by the Certified Storm Water Operator at least quarterly. The permittee may request Department approval of an alternate schedule for comprehensive site inspections. A written report of the inspection and corrective actions shall be retained in accordance with Record Keeping, below. Included in the report shall be a certification that the facility is in compliance with this permit and the SWPPP;

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4) Material handling procedures and storage requirements for significant materials. Equipment and procedures for cleaning up spills shall be identified in the SWPPP and made available to the appropriate personnel. The procedures shall identify measures to prevent the spilled materials or material residues from contaminating storm water runoff from the property. The SWPPP shall include language describing what a reportable spill or release is and the appropriate reporting requirements in accordance with Part II.C.6. and Part II.C.7. of the permit. The SWPPP may include, by reference, requirements of either a Pollution Incident Prevention Plan (PIPP) prepared in accordance with the Part 5 Rules (Rules 324.2001 through 324.2009 of the Michigan Administrative Code); a Hazardous Waste Contingency Plan prepared in accordance with 40 CFR 264 and 265 Subpart D, as required by Part 111 of the Michigan Act; or a Spill Prevention Control and Countermeasure (SPCC) plan prepared in accordance with 40 CFR 112;

5) Measures used to control soil erosion and sedimentation including identification of the areas that, due to topography, activities, or other factors, have a high potential for significant soil erosion. Gravel lots are to be included;

6) Employee training programs which will be implemented to inform appropriate personnel at all levels of responsibility of the components and goals of the SWPPP. The SWPPP shall include a description of the employee training programs and shall identify periodic dates for such training (recommended at least once per year). Records of the employee training program shall be retained in accordance with Record Keeping, below; and

7) Actions being taken to limit the discharge of significant materials in order to comply with TMDL requirements.

The SWPPP shall identify significant materials expected to be present in storm water discharges following implementation of non-structural preventative measures and source controls.

c. **Structural Controls for Prevention and Treatment**

Where implementation of the measures required by Preventive Measures and Source Controls, Non-Structural; above; does not control storm water discharges in accordance with Water Quality Standards, below, the SWPPP shall provide a description of the location, function, design criteria, and installation/construction schedules of structural controls for prevention and treatment. Structural controls may be necessary:

1) To prevent uncontaminated storm water from contacting or being contacted by significant materials, and/or

2) If preventive measures are not feasible or are inadequate to keep significant materials at the site from contaminating storm water. Structural controls shall be used to treat, divert, isolate, recycle, reuse or otherwise manage storm water in a manner that reduces the level of significant materials in the storm water and provides compliance with the Water Quality Standards, below.

d. **Keeping SWPPPs Current**

1) The permittee and/or the Certified Storm Water Operator shall review the SWPPP on or before June 1 of each year, and maintain written summaries of the reviews in accordance with Record Keeping, below. Based on the review, the permittee and/or the Certified Storm Water Operator shall amend the SWPPP as needed to ensure continued compliance with the terms and conditions of this permit.

2) The SWPPP developed under the conditions of a previous permit shall be amended as necessary to ensure compliance with this permit.

PART I**Section A. Limitations and Monitoring Requirements**

3) The SWPPP shall be updated or amended whenever changes at the facility have the potential to increase the exposure of significant materials to storm water, significant spills at the facility occur, or when the SWPPP is determined by the permittee or the Department to be ineffective in achieving the general objectives of controlling pollutants in storm water discharges associated with industrial activity. Updates based on increased activity at the facility shall include a description of how the permittee intends to control any new sources of significant materials or respond to and prevent spills in accordance with the requirements of Source Identification; Preventive Measures and Source Controls, Non-Structural; and Structural Controls for Prevention and Treatment; above.

4) The Department or authorized representative may notify the permittee at any time that the SWPPP does not meet minimum requirements. Such notification shall identify why the SWPPP does not meet minimum requirements. The permittee shall make the required changes to the SWPPP within 30 days after such notification from the Department or authorized representative and shall submit to the Department a written certification that the requested changes have been made.

5) Amendments to the SWPPP shall be signed and retained on-site pursuant to Record Keeping, below.

e. **Certified Storm Water Operator Requirements**

A Certified Storm Water Operator certified by the Department is required by Section 3110 of the Michigan Act. The Certified Storm Water Operator shall have supervision over the facility's storm water treatment and control measures included in the SWPPP. The names and certification numbers of the Certified Storm Water Operators shall be included in the SWPPP.

If the Certified Storm Water Operator is changed or an additional Certified Storm Water Operator is added, the permittee shall provide the name and certification number of the new Certified Storm Water Operator to the Department. If a facility has multiple Certified Storm Water Operators, the names and certification numbers of the Certified Storm Water Operators shall be included in the SWPPP.

f. **Signature and SWPPP Review**

1) The SWPPP shall be signed by the Certified Storm Water Operator and by either the permittee or an authorized representative in accordance with 40 CFR 122.22. The SWPPP and associated records shall be retained on-site at the facility which generates the storm water discharge.

2) The permittee shall make SWPPPs, reports, log books, storm water discharge sampling data (if collected), and items required by Record Keeping below, available upon request to the Department or authorized representative.

g. **Record Keeping**

The permittee shall maintain records of all SWPPP related inspection and maintenance activities. Records shall also be kept describing incidents such as spills or other discharges that can affect the quality of storm water runoff. All such records shall be retained for three (3) years.

h. **Water Quality Standards**

At the time of discharge, there shall be no violation of the Water Quality Standards in the receiving waters as a result of the storm water discharge. This requirement includes, but is not limited to, the following conditions:

1) In accordance with Rule 323.1050 of the Water Quality Standards, the receiving waters shall not have any of the following unnatural physical properties as a result of this discharge in quantities which are or may become injurious to any designated use: turbidity, color, oil film, floating solids, foams, settleable solids, suspended solids, or deposits;

PART I

Section A. Limitations and Monitoring Requirements

2) Any unusual characteristics of the discharge (i.e., unnatural turbidity, color, oil film, floating solids, foams, settleable solids, suspended solids, or deposits) shall be reported within 24 hours to the Department followed by a written report within five (5) days detailing the findings of the investigation and the steps taken to correct the condition; and

3) Any pollutant for which a level of control is specified to meet a TMDL established by the Department shall be controlled at the facility so that its discharge is reduced by/to the amount specified in the TMDL.

i. Prohibition of Non-storm Water Discharges

Discharges of material other than storm water shall be in compliance with an NPDES permit issued for the discharge. Storm water shall be defined to include the following non-storm water discharges provided pollution prevention controls for the non-storm water component are identified in the SWPPP: discharges from fire hydrant flushing, potable water sources including water line flushing, water from fire system testing and fire fighting training without burned materials or chemical fire suppressants, irrigation drainage, lawn watering, routine building wash down which does not use detergents or other compounds, pavement wash water where toxic or hazardous materials have not occurred (unless all contamination by toxic or hazardous materials have been removed) and where detergents are not used, air conditioning condensate, springs, uncontaminated groundwater, foundation or footing drains where flows are not contaminated with process materials such as solvents, and discharges from fire fighting activities. Discharges from fire fighting activities are exempted from the requirement to be identified in the SWPPP.

17. Storm Water Detention and Treatment System Report, Outfall 011

On or before July 1, 2017, the permittee shall submit a report to the Department summarizing the effectiveness of the constructed storm water detention and treatment system discharging to the Thornapple River via Outfall 011. The study shall address the following items:

- a. The report shall include:
 - a summary of overall effectiveness of the treatment system for loading removal and concentration reductions for CBOD₅ and Ammonia Nitrogen,
 - a summary of influent data with a comparison to effluent data collected during the same de-icing event,
 - a summary of seasonal and event based effectiveness (event based effectiveness shall compare events of varying duration and intensity); and
 - additional sampling data collected per the requirements in Part I.A.17.b. below.

The permittee shall collect enough samples as to be considered representative of the discharge for the treatment system effectiveness report.

b. Additional Sampling Requirement

- As a condition of this permit, the permittee shall collect data from Monitoring Point 011 for the constituents, specified below, for two significant de-icing events.

Hardness

calcium carbonate

Metals (Total Recoverable), Cyanide and Total Phenols (Quantification levels in parentheses)

antimony (1 µg/l)	arsenic (1 µg/l)	available cyanide (2 µg/l) using Method OIA – 1677	
barium (5 µg/l)	beryllium (1 µg/l)	boron (20 µg/l)	cadmium (0.2 µg/l)
chromium (5 µg/l)	copper (1 µg/l)	lead (1 µg/l)	nickel (5 µg/l)
selenium (1 µg/l)	silver (0.5 µg/l)	thallium (1 µg/l)	zinc (5 µg/l)
total phenolic compounds			

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Section A. Limitations and Monitoring Requirements

Volatile Organic Compounds

acrolein	acrylonitrile	benzene	bromoform
carbon tetrachloride	chlorobenzene	chlorodibromomethane	chloroethane
2-chloroethylvinyl ether	chloroform	dichlorobromomethane	1,1-dichloroethane
1,2-dichloroethane	trans-1,2-dichloroethylene	1,1-dichloroethylene	1,2-dichloropropane
1,3-dichloropropylene	ethylbenzene	methyl bromide	methyl chloride
methylene chloride	1,1,2,2,-tetrachloroethane	tetrachloroethylene	toluene
1,1,1-trichloroethane	1,1,2-trichloroethane	trichloroethylene	vinyl chloride

Acid-Extractable Compounds

p-chloro-m-cresol	2-chlorophenol	2,4-dichlorophenol	2,4-dimethylphenol
4,6-dinitro-o-cresol	2,4-dinitrophenol	2-nitrophenol	4-nitrophenol
Pentachlorophenol	phenol	2,4,6-trichlorophenol	

Base/Neutral Compounds

acenaphthene	acenaphthylene	anthracene	benzidine
benzo(a)anthracene	benzo(a)pyrene	3,4-benzofluoranthene	benzo(ghi)perylene
benzo(k)fluoranthene	bis(2-chloroethoxy)methane	bis(2-chloroethyl)ether	bis(2-chloroisopropyl)ether
bis(2-ethylhexyl)phthalate	4-bromophenyl phenyl ether	butyl benzyl phthalate	2-chloronaphthalene
4-chlorophenyl phenyl ether	chrysene	di-n-butyl phthalate	di-n-octyl phthalate
dibenzo(a,h)anthracene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene
3,3'-dichlorobenzidine	diethyl phthalate	dimethyl phthalate	2,4-dinitrotoluene
2,6-dinitrotoluene	1,2-diphenylhydrazine	fluoranthene	fluorene
Hexachlorobenzene	hexachlorobutadiene	hexachlorocyclo-pentadiene	hexachloroethane
indeno(1,2,3-cd)pyrene	isophorone	naphthalene	nitrobenzene
n-nitrosodi-n-propylamine	n-nitrosodimethylamine	n-nitrosodiphenylamine	phenanthrene
pyrene	1,2,4-trichlorobenzene		

Additional Parameters

Total Suspended Solids	Total Aluminum	Total Cobalt	Total Iron
Total Phosphorus	Total Manganese	Total Molybdenum	Nitrate-Nitrite (as N)
Oil & Grease	Sulfate (as SO4)	Propylene Glycol	Total Dissolved Solids
Total Vanadium	Total Alkalinity	Chloride	Total Calcium
Chemical Oxygen Demand	Total Potassium	Total Sodium	Conductivity
Acetate	Nitrogen, Total Organic (as N)		

If, upon review of the analysis, it is determined that additional requirements are needed to protect the receiving waters in accordance with applicable water quality standards, the permit may then be modified by the Department in accordance with applicable laws and rules.

Nothing in this section obviates the permittee from properly submitting reports and forms as required by law.

The Storm Water Detention and Treatment System Report for Outfall 011, including information, measures, and data, shall be used to quantify the parameters that may be present in the discharge. A detectable quantity of a pollutant does not necessarily indicate that the discharge is exceeding water quality standards.

PART II

Section A. Definitions

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

Acute toxic unit (TU_A) means $100/LC_{50}$ where the LC_{50} is determined from a whole effluent toxicity (WET) test which produces a result that is statistically or graphically estimated to be lethal to 50% of the test organisms.

Bioaccumulative chemical of concern (BCC) means a chemical which, upon entering the surface waters, by itself or as its toxic transformation product, accumulates in aquatic organisms by a human health bioaccumulation factor of more than 1000 after considering metabolism and other physiochemical properties that might enhance or inhibit bioaccumulation. The human health bioaccumulation factor shall be derived according to R 323.1057(5). Chemicals with half-lives of less than 8 weeks in the water column, sediment, and biota are not BCCs. The minimum bioaccumulation concentration factor (BAF) information needed to define an organic chemical as a BCC is either a field-measured BAF or a BAF derived using the biota-sediment accumulation factor (BSAF) methodology. The minimum BAF information needed to define an inorganic chemical as a BCC, including an organometal, is either a field-measured BAF or a laboratory-measured bioconcentration factor (BCF). The BCCs to which these rules apply are identified in Table 5 of R 323.1057 of the Water Quality Standards.

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.

Chronic toxic unit (TU_C) means $100/MATC$ or $100/IC_{25}$, where the maximum acceptable toxicant concentration (MATC) and IC_{25} are expressed as a percent effluent in the test medium.

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. The daily concentration will be used to determine compliance with any maximum and minimum daily concentration limitations (except for pH and dissolved oxygen). When required by the permit, report the maximum calculated daily concentration for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the Discharge Monitoring Reports (DMRs).

For pH, report the maximum value of any individual sample taken during the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs and the minimum value of any individual sample taken during the month in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs. For dissolved oxygen, report the minimum concentration of any individual sample in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

Daily loading is the total discharge by weight of a parameter discharged during any calendar day. This value is calculated by multiplying the daily concentration by the total daily flow and by the appropriate conversion factor. The daily loading will be used to determine compliance with any maximum daily loading limitations. When required by the permit, report the maximum calculated daily loading for the month in the "MAXIMUM" column under "QUANTITY OR LOADING" on the DMRs.

Department means the Michigan Department of Natural Resources and Environment.

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.

PART II

Section A. Definitions

Discharge Event is a discrete occurrence during which effluent is discharged to the surface water up to 10 days of a consecutive 14 day period.

EC₅₀ means a statistically or graphically estimated concentration that is expected to cause 1 or more specified effects in 50% of a group of organisms under specified conditions.

Fecal coliform bacteria monthly is the geometric mean of the samples collected in a calendar month (or 30 consecutive days). The calculated monthly value will be used to determine compliance with the maximum monthly fecal coliform bacteria limitations. When required by the permit, report the calculated monthly value in the "AVERAGE" column under "QUALITY OR CONCENTRATION" on the DMRs. FOR SEASONAL LAGOON DISCHARGES ONLY: If the period in which the discharge occurred was partially in each of two months, the monthly average shall be reported on the DMR of the month in which the last day of discharge occurred..

Fecal coliform bacteria 7-day is the geometric mean of the samples collected in any 7-day period. The calculated 7-day value will be used to determine compliance with the maximum 7-day fecal coliform bacteria limitations. When required by the permit, report the maximum calculated 7-day concentration for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs. FOR SEASONAL LAGOON DISCHARGES ONLY: If the seven day period was partially in each of two months, the seven day average shall be reported on the DMR of the month in which the last day of discharge occurred.

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

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

Geometric Mean is the average of the logarithmic values of a base 10 data set, converted back to a base 10 number.

IC₂₅ means the toxicant concentration that would cause a 25% reduction in a nonquantal biological measurement for the test population.

Interference is a discharge which, alone or in conjunction with a discharge or discharges from other sources, both: 1) inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and 2) therefore, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or, of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent state or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including state regulations contained in any state sludge management plan prepared pursuant to Subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act. [This definition does not apply to sample matrix interference.]

Land Application means spraying or spreading biosolids or a biosolids derivative onto the land surface, injecting below the land surface, or incorporating into the soil so that the biosolids or biosolids derivative can either condition the soil or fertilize crops or vegetation grown in the soil.

LC₅₀ means a statistically or graphically estimated concentration that is expected to be lethal to 50% of a group of organisms under specified conditions.

Maximum acceptable toxicant concentration (MATC) means the concentration obtained by calculating the geometric mean of the lower and upper chronic limits from a chronic test. A lower chronic limit is the highest tested concentration that did not cause the occurrence of a specific adverse effect. An upper chronic limit is the lowest tested concentration which did cause the occurrence of a specific adverse effect and above which all tested concentrations caused such an occurrence.

MGD means million gallons per day.

PART II

Section A. Definitions

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.

Monthly concentration is the sum of the daily concentrations determined during a reporting month (or 30 consecutive days) divided by the number of daily concentrations determined. The calculated monthly concentration will be used to determine compliance with any maximum monthly concentration limitations. When required by the permit, report the calculated monthly concentration in the "AVERAGE" column under "QUALITY OR CONCENTRATION" on the DMRs. FOR SEASONAL LAGOON DISCHARGES ONLY: If the period in which the discharge occurred was partially in each of two months, the monthly average shall be reported on the DMR of the month in which the last day of discharge occurred.

For minimum percent removal requirements, the monthly influent concentration and the monthly effluent concentration shall be determined. The calculated monthly percent removal, which is equal to 100 times the quantity [1 minus the quantity (monthly effluent concentration divided by the monthly influent concentration)], shall be reported in the "MINIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs.

Monthly loading is the sum of the daily loadings of a parameter divided by the number of daily loadings determined in the reporting month (or 30 consecutive days). The calculated monthly loading will be used to determine compliance with any maximum monthly loading limitations. When required by the permit, report the calculated monthly loading in the "AVERAGE" column under "QUANTITY OR LOADING" on the DMRs. FOR SEASONAL LAGOON DISCHARGES ONLY: If the period in which the discharge occurred was partially in each of two months, the monthly average shall be reported on the DMR of the month in which the last day of discharge occurred.

National Pretreatment Standards are the regulations promulgated by or to be promulgated by the Federal Environmental Protection Agency pursuant to Section 307(b) and (c) of the Federal Act. The standards establish nationwide limits for specific industrial categories for discharge to a POTW.

No observed adverse effect level (NOAEL) means the highest tested dose or concentration of a substance which results in no observed adverse effect in exposed test organisms where higher doses or concentrations result in an adverse effect.

Noncontact Cooling Water is water used for cooling which does not come into direct contact with any raw material, intermediate product, by-product, waste product or finished product.

Nondomestic user is any discharger to a POTW that discharges wastes other than or in addition to water-carried wastes from toilet, kitchen, laundry, bathing or other facilities used for household purposes.

Partially treated sewage is any sewage, sewage and storm water, or sewage and wastewater, from domestic or industrial sources that is treated to a level less than that required by the permittee's National Pollutant Discharge Elimination System permit, or that is not treated to national secondary treatment standards for wastewater, including discharges to surface waters from retention treatment facilities.

Pretreatment is reducing the amount of pollutants, eliminating pollutants, or altering the nature of pollutant properties to a less harmful state prior to discharge into a public sewer. The reduction or alteration can be by physical, chemical, or biological processes, process changes, or by other means. Dilution is not considered pretreatment unless expressly authorized by an applicable National Pretreatment Standard for a particular industrial category.

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

Section A. Definitions

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.

Regional Administrator is the Region 5 Administrator, U.S. EPA, located at R-19J, 77 W. Jackson Blvd., Chicago, Illinois 60604.

Significant industrial user is a nondomestic user that: 1) is subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; or 2) discharges an average of 25,000 gallons per day or more of process wastewater to a POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process wastestream which makes up five (5) percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the permittee as defined in 40 CFR 403.12(a) on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's treatment plant operation or violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

Significant Materials Significant Materials means any material which could degrade or impair water quality, including but not limited to: raw materials; fuels; solvents, detergents, and plastic pellets; finished materials such as metallic products; hazardous substances designated under Section 101(14) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (see 40 CFR 372.65); any chemical the facility is required to report pursuant to Section 313 of Emergency Planning and Community Right-to-Know Act (EPCRA); polluting materials as identified under the Part 5 Rules (Rules 324.2001 through 324.2009 of the Michigan Administrative Code); Hazardous Wastes as defined in Part 111 of the Michigan Act; fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges.

Tier I value means a value for aquatic life, human health or wildlife calculated under R 323.1057 of the Water Quality Standards using a tier I toxicity database.

Tier II value means a value for aquatic life, human health or wildlife calculated under R 323.1057 of the Water Quality Standards using a tier II toxicity database.

Total Maximum Daily Loads (TMDLs) are required by the Federal Act for waterbodies that do not meet Water Quality Standards. TMDLs represent the maximum daily load of a pollutant that a waterbody can assimilate and meet Water Quality Standards and an allocation of that load among point sources, nonpoint sources, and a margin of safety.

Toxicity Reduction Evaluation (TRE) means a site-specific study conducted in a stepwise process designed to identify the causative agents of effluent toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in effluent toxicity.

Water Quality Standards means the Part 4 Water Quality Standards promulgated pursuant to Part 31 of Act No. 451 of the Public Acts of 1994, as amended, being Rules 323.1041 through 323.1117 of the Michigan Administrative Code.

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.

Yearly 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.

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

Section A. Definitions

3-Portion Composite sample is a sample consisting of three equal volume grab samples collected at equal intervals over an 8-hour period.

7-day concentration is the sum of the daily concentrations determined during any 7 consecutive days in a reporting month divided by the number of daily concentrations determined. The calculated 7-day concentration will be used to determine compliance with any maximum 7-day concentration limitations. When required by the permit, report the maximum calculated 7-day concentration for the month in the "MAXIMUM" column under "QUALITY OR CONCENTRATION" on the DMRs. FOR SEASONAL LAGOON DISCHARGES ONLY: If the seven day period was partially in each of two months, the seven day average shall be reported on the DMR of the month in which the last day of discharge occurred.

7-day loading is the sum of the daily loadings of a parameter divided by the number of daily loadings determined during any 7 consecutive days in a reporting month. The calculated 7-day loading will be used to determine compliance with any maximum 7-day loading limitations. When required by the permit, report the maximum calculated 7-day loading for the month in the "MAXIMUM" column under "QUANTITY OR LOADING" on the DMRs. FOR SEASONAL LAGOON DISCHARGES ONLY: If the seven day period was partially in each of two months, the seven day average shall be reported on the DMR of the month in which the last day of discharge occurred.

PART II**Section B. Monitoring Procedures****1. Representative Samples**

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

2. Test Procedures

Test procedures for the analysis of pollutants shall conform to regulations promulgated pursuant to Section 304(h) of the Federal Act (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 promulgated under 40 CFR Part 136 for pollutant monitoring required by this permit shall be made in accordance with the Alternate Test Procedures regulations specified in 40 CFR 136.4. These requests shall be submitted to the Chief of the Permits Section, Water Resources Division, Michigan Department of Environmental Quality, P.O. Box 30458, Lansing, Michigan, 48909-7773. The permittee may use such procedures upon 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.

3. Instrumentation

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

4. 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.

5. 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 Department.

PART II

Section C. Reporting Requirements

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. 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 Michigan DNRE 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).

3. Retained Self-Monitoring Requirements

If instructed on the effluent limits page to conduct retained self-monitoring, the permittee shall maintain a year-to-date log of retained self-monitoring results and, upon request, provide such log for inspection to the staff of the Water Resources Division, Michigan Department of Natural Resources and Environment. Retained self-monitoring results are public information and shall be promptly provided to the public upon request.

The permittee shall certify, in writing, to the Department, on or before January 10th of each year, that: 1) all retained self-monitoring requirements have been complied with and a year-to-date log has been maintained; and 2) the application on which this permit is based still accurately describes the discharge. With this annual certification, the permittee shall submit a summary of the previous years monitoring data. The summary shall include maximum values for samples to be reported as daily maximums and/or monthly maximums and minimum values for any daily minimum samples.

4. 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 Discharge Monitoring Report. Such increased frequency shall also be indicated.

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

5. 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.

PART II

Section C. Reporting Requirements

6. Noncompliance Notification

Compliance with all applicable requirements set forth in the Federal Act, Parts 31 and 41 of the Michigan Act, and related regulations and rules is required. All instances of noncompliance shall be reported as follows:

- a. 24-hour reporting - Any noncompliance which may endanger health or the environment (including maximum daily concentration discharge limitation exceedances) shall be reported, verbally, within 24 hours from the time the permittee becomes aware of the noncompliance. A written submission shall also be provided within five (5) days.
- b. other reporting - The permittee shall report, in writing, all other instances of noncompliance not described in a. above at the time monitoring reports are submitted; or, in the case of retained self-monitoring, within five (5) days from the time the permittee becomes aware of the noncompliance.

Written reporting shall include: 1) a description of the discharge and cause of noncompliance; and 2) the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and the steps taken to reduce, eliminate and prevent recurrence of the noncomplying discharge.

7. Spill Notification

The permittee shall immediately report any release of any polluting material which occurs to the surface waters or groundwaters 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 second 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.

8. 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;
- 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.

PART II**Section C. Reporting Requirements****9. 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 9.b. or 9.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 9.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 second 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 9.a., 9.b., 9.c., and 9.d., above. This provision does not relieve the permittee of any notification responsibilities under Part II.C.10. 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.

PART II

Section C. Reporting Requirements

10. Notification of Changes in Discharge

The permittee shall notify the Department, in writing, within 10 days of knowing, or having reason to believe, that any activity or change has occurred or will occur which would result in the discharge of: 1) detectable levels of chemicals on the current Michigan Critical Materials Register, priority pollutants or hazardous substances set forth in 40 CFR 122.21, Appendix D, or the Pollutants of Initial Focus in the Great Lakes Water Quality Initiative specified in 40 CFR 132.6, Table 6, 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; or 3) any chemical at levels greater than five times the average level reported in the complete application (see the first page of this permit for the date(s) the complete application was submitted). Any other monitoring results obtained as a requirement of this permit shall be reported in accordance with the compliance schedules.

11. Changes in Facility Operations

Any anticipated action or activity, including but not limited to facility expansion, production increases, or process modification, which will result in new or increased loadings of pollutants to the receiving waters must be reported to the Department by a) submission of an increased use request (application) and all information required under Rule 323.1098 (Antidegradation) of the Water Quality Standards or b) by notice if the following conditions are met: 1) the action or activity will not result in a change in the types of wastewater discharged or result in a greater quantity of wastewater than currently authorized by this permit; 2) the action or activity will not result in violations of the effluent limitations specified in this permit; 3) the action or activity is not prohibited by the requirements of Part II.C.12.; and 4) the action or activity will not require notification pursuant to Part II.C.10. Following such notice, the permit may be modified according to applicable laws and rules to specify and limit any pollutant not previously limited.

12. Bioaccumulative Chemicals of Concern (BCC)

Consistent with the requirements of Rules 323.1098 and 323.1215 of the Michigan Administrative Code, the permittee is prohibited from undertaking any action that would result in a lowering of water quality from an increased loading of a BCC unless an increased use request and antidegradation demonstration have been submitted and approved by the Department.

13. 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.

PART II

Section D. Management Responsibilities

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 the Michigan Act and/or the Federal Act and constitutes grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of an application for permit renewal.

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

2. 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 Michigan Act. Permittees authorized to discharge storm water shall have the storm water treatment and/or control measures under direct supervision of a storm water operator certified by the Department, as required by Section 3110 of the Michigan Act.

3. 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.

4. 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.

5. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the surface waters 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.

PART II

Section D. Management Responsibilities

6. 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 Michigan Act.

7. Waste Treatment Residues

Residuals (i.e. solids, sludges, biosolids, filter backwash, scrubber water, ash, grit, or other pollutants or wastes) removed from or resulting from treatment or control of wastewaters, including those that are generated during treatment or left over after treatment or control has ceased, 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 Michigan Act, Part 31 for protection of water resources, Part 55 for air pollution control, Part 111 for hazardous waste management, Part 115 for solid waste management, Part 121 for liquid industrial wastes, Part 301 for protection of inland lakes and streams, and Part 303 for wetlands protection. Such disposal shall not result in any unlawful pollution of the air, surface waters or groundwaters of the state.

8. Right of Entry

The permittee shall allow the Department, any agent appointed by the Department or the Regional Administrator, upon the presentation of credentials, and in compliance with Kent Count Department of Aeronautics, Federal Aviation Administration, and Transportation Security Administration rules and regulations:

- 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 discharge of pollutants.

9. Availability of Reports

Except for data determined to be confidential under Section 308 of the Federal Act and Rule 2128 (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 and the Regional Administrator. As required by the Federal 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 Federal Act and Sections 3112, 3115, 4106 and 4110 of the Michigan Act.

PART II**Section E. Activities Not Authorized by This Permit****1. Discharge to the Groundwaters**

This permit does not authorize any discharge to the groundwaters. Such discharge may be authorized by a groundwater discharge permit issued pursuant to the Michigan Act.

2. POTW Construction

This permit does not authorize or approve the construction or modification of any physical structures or facilities at a POTW. Approval for the construction or modification of any physical structures or facilities at a POTW must be by permit issued under Part 41 of the Michigan Act.

3. Civil and Criminal Liability

Except as provided in permit conditions on "Bypass" (Part II.C.9. pursuant to 40 CFR 122.41(m)), 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.

4. 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 Federal Act except as are exempted by federal regulations.

5. 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 Federal Act.

6. 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, including any other Department of Natural Resources and Environment permits, or approvals from other units of government as may be required by law.

