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GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
WARREN DISTRICT OFFICE



LIESL EICHLER CLARK  
DIRECTOR

August 9, 2019

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

COMPLIANCE COMMUNICATION  
CC No. CC-002126

Mr. Bryan Wagoner, Environment & Sustainability Director  
Detroit Metro Wayne County Airport Authority  
1 L.C. Smith Building, Mezzanine Level  
Detroit, Michigan 48242

Dear Mr. Wagoner:

SUBJECT: Compliance Sampling Inspection  
National Pollutant Discharge Elimination System (NPDES)  
NPDES Permit No. MI0036846  
Designated Name: Detroit Metro Wayne Co Airport

On April 30, 2019, and May 6, 2019, staff of the Department of Environment, Great Lakes, and Energy (EGLE), Water Resources Division (WRD), conducted a NPDES Compliance Sampling Inspection (CSI) at the Detroit Metro Wayne Co Airport, located in Romulus, Michigan. The purpose of the inspection was to evaluate the facility's compliance with Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), and NPDES Permit No. MI0036846.

The inspection consisted of a review of the permitted Monitoring Points 003A, 004A, and 006A, and Outfalls 003, 004, and 006, and a review of NPDES related records. EGLE staff, Lishba Varughese and I, met with Mr. Bryan Wagoner and Mr. Jim Cullen who oversee the environmental compliance for the facility.

Detroit Metro Wayne Co Airport currently discharges treated deicing operations runoff and treated storm water runoff. Based on the type of wastewater treatment provided, the facility is required to have an operator who holds the following wastewater certifications:

- A-1d Impoundment
- A-1i Storm Water Management – Industrial Site

Currently, Bryan Wagoner is the designated certified operator for the facility and holds the certifications listed above.

Since the previous inspection on February 23, 2018, there has been one Pollution Emergency Alerting System (PEAS) incident reported by the facility. On March 8, 2019, PEAS was notified of a break in the force-main which conveys dilute deicing fluid containing propylene glycol from Pond 003 West to the Great Lakes Water Authority Treatment Facility. An unknown amount of untreated water was released to the surrounding area, though there was reportedly no evidence of a discharge to the waters of the state.

The facility has also reported four emergency discharge events since the previous inspection. Per Bryan Wagoner, all emergency discharge events were initiated due to limited freeboard. Per the facility's *DTW Stormwater Detention Pond Operating Procedures Manual*, freeboard should

be maintained at a minimum of 2.5 feet. The operations manual, in Section 4.1.2, also indicates that notification to the department be made prior to initiating an emergency discharge, which was not completed in the instances below. The emergency discharge events are summarized in the following table.

**Table of Reported Emergency Discharge Events**

Pond	Date Occurred	Date Reported	Freeboard before discharge	DMR Exceedance (Y/N)
3 East	3/31/2019	3/31/2019	1.5 feet	Y
3 East	4/20/2019	4/20/2019	1.25 feet	Y
3 East	4/26/2019	4/26/2019	1.1 feet	N
3 East*	5/01/2019	5/01/2019	1.5 feet	Y
6	5/01/2019	5/01/2019	2.0 feet	N

\*Note: During this emergency discharge event, Pond 3 West overflowed into Pond 3 East; the freeboard of Pond 3 West prior to discharge was approximately 4.0 feet. Discharge was ongoing through 05/03/2019.

EGLE staff review of submitted DMRs for the facility indicate the following permit exceedances of the five-day Carbonaceous Biochemical Oxygen Demand (CBOD<sub>5</sub>) and Dissolved Oxygen (DO) permit limits. The exceedances, as reported by Detroit Metro are summarized in the table below.

**Table of Reported CBOD<sub>5</sub> Exceedances**

Outfall	Date Occurred	Date Reported	CBOD <sub>5</sub> Permit Limit (max)	Reported CBOD <sub>5</sub>	DO Permit Limit (min)	Reported DO
003A	2/01/2019	2/11/2019	230 mg/L	250 mg/L		
006A	2/10/2018	2/11/2019	150 mg/L	180 mg/L		
006A	3/01/2019	3/14/2019	240 mg/L	290 mg/L		
003A*	4/01/2019	4/02/2019			3.5 mg/L	2.9 mg/L
003A*	4/20/2019	4/20/2019			3.5 mg/L	1.9 mg/L
003A*	5/03/2019	5/03/2019			3.5 mg/L	2.7 mg/L

\*Note: These exceedances coincide with emergency discharge events

In addition, Dissolved Oxygen samples taken on May 1<sup>st</sup> and 2<sup>nd</sup>, 2019 were calculated by averaging two measurements taken. The facility comment on the DMR for May 1<sup>st</sup> reads “5.16 mg/L is the average of two measurements taken: 2.23 mg/L at the beginning of the discharge and 8.10 mg/L fifteen hours later”. Per the definitions found in Part II.A, “for dissolved oxygen, report the minimum concentration of any *individual* sample in the ‘MINIMUM’ column under ‘QUALITY OR CONCENTRATION’ on the DMRs”.

### **Site Inspection**

During the site inspection on April 30, 2019, EGLE staff observed foam at Monitoring Point 006A and Outfall 006, discharging into the Frank and Poet Drain. EGLE staff, Mr. Micky Leonard, collected samples from Outfall 006 at this time. During the site inspection, there was no discharge through Outfall 003 or 004. Review of Monitoring Point 004A indicated that the composite sampler was not functioning at the time of the inspection, though facility staff confirmed the sampler was replaced on May 9, 2019. During the review of Monitoring Point 003A, EGLE staff observed little to no freeboard at Pond 3 East. Outfall 003 was not

discharging at the time of the site inspection. On May 1, 2019, there was an emergency discharge initiated from Pond 3 East and an overflow of Pond 3 West into Pond 3 East. Mr. Micky Leonard collected a split sample from the facility from Outfall 003 during the emergency discharge on May 2, 2019. EGLE results are provided and compared to the results reported by Detroit Metro Wayne Co Airport in the document titled *2019 CSI Final Report DTW* which can be found enclosed in this letter. All parameters regularly sampled per permit requirements, compared well.

### **Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)**

Additional sampling for PFAS was collected at Outfall 003 and 006 due to the statewide, multi-agency effort to determine the levels of PFAS in waters of the state as well as identify potential sources. Michigan has developed Rule 57, Water Quality Standards for both perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA). For PFOS, the Human Non-Cancer Value (HNV) is 11 ppt (parts per trillion) in surface water used as a source of drinking water, and 12 ppt for those waters not used as a drinking water source. The HNV for PFOA is 420 ppt and 12,000 ppt for drinking water and non-drinking water, respectively. Sample results indicate that discharges from Detroit Metro Wayne Co Airport exceed Water Quality Standards for PFOS. Please refer to the table below for the results of the testing conducted by EGLE.

**PFAS Sampling Results**

Sample Location	Sample Date	PFOS Level Detected	PFOS Water Quality Standard	PFOA Level Detected	PFOA Water Quality Standard
Outfall 003	4/30/19	43 ppt	12 ppt	26 ppt	12,000 ppt
Outfall 006	5/02/19	74 ppt	12 ppt	28 ppt	12,000 ppt

Based on these sample results, Detroit Metro Wayne Co Airport is required to conduct an investigation to determine the source(s) of PFAS in the storm water discharged from the site. Please develop and submit for approval a PFAS Source Identification Study Plan. The Plan should be developed with the intent to identify PFAS source areas in order to implement control measures and/or treatment technologies to ensure that discharges from Detroit Metro Wayne Co Airport meet Water Quality Standards for PFOS. In addition to the source identification efforts, EGLE staff requests that the Detroit Metro Wayne Co Airport collect samples for PFAS analysis at each of the NPDES-permitted outfalls for the next three (3) discharge events. The enclosed document provides the minimum list of required analytes that Detroit Metro Wayne Co Airport must provide laboratory sample results for. Additionally, all sampling shall be performed in accordance with the sampling guidance provided on the Michigan PFAS Action Response Team webpage <https://www.michigan.gov/pfasresponse/>.

### **Conclusion**

Detroit Metro Wayne Co Airport is required to submit a written response to this letter no later than **September 9, 2019**. At a minimum, the response shall include the following action items:

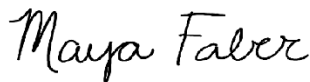
1. According to the *DTW Stormwater Detention Pond Operating Procedures Manual* Section 4.1.2, notification must be made prior to an emergency discharge due to limited freeboard to discuss the events that led up to the emergency discharge, and the specifics with how the emergency discharge will be conducted. Facility will either need to change the language in the manual or confirm that they will follow this procedure in the future.

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2. Confirmation that DMR entries for Dissolved Oxygen on May 1<sup>st</sup> and 2<sup>nd</sup>, 2019 have been corrected to reflect the minimum value of any individual sample taken that day.
3. A proposed PFAS Source Identification Study Plan for EGLE's approval. In addition to proposed sampling locations and methods, the plan should also include information regarding the onsite use of Aqueous Film-Forming Foam (AFFF) employed, at the site including:
  - a. Brand name(s) or type(s) of AFFF employed, including formulation/ingredients. If multiple types of AFFF have been employed, provide the dates for each.
  - b. Date and location of any use (e.g. to prevent, extinguish or control fires, to test firefighting equipment, and/or historical firefighting training exercises).
  - c. Maintenance and testing procedures.
4. Confirmation that Detroit Metro Wayne Co Airport will conduct the requested PFAS sampling at the NPDES-permitted outfalls. Please also identify the laboratory that will be hired to analyze the storm water samples for all required PFAS analytes and the methodology that will be used to analyze the samples.

In addition to the items requested above, if Detroit Metro has any information it would like EGLE to consider regarding this letter, please provide it with the written response. We appreciate your cooperation in resolving this matter. If you have any questions regarding this letter or if you would like to discuss it, please contact me.

Sincerely,



Maya Faber  
Water Resources Division  
Warren District Office  
248-497-2244

Enclosures: *2019 CSI Final Report DTW*  
*EGLE PFAS Minimum Laboratory Analytes List*

cc/enc: Mr. Jon Russell, EGLE, WRD  
Mr. Phil Argiroff, EGLE, WRD  
Ms. Christine Alexander, EGLE, WRD  
Ms. Christine Aiello, EGLE, WRD  
Ms. Melinda Steffler, EGLE, WRD  
Ms. Amy Peterson, EGLE, MPART  
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