

STATEMENT OF BASIS

FOR THE REISSUANCE OF A NPDES PERMIT

U.S. Environmental Protection Agency
Region 5, NPDES Programs Branch - WN-16J
77 West Jackson Boulevard
Chicago, Illinois 60604
(312) 886-6106

Public Notice No.: 13-12-01-A

Public Notice Issued On: December 18, 2013 **Comment period ends: January 17, 2014**

Permit No.: MI-0054003-3 (Reissuance)

Application No.: MI-0054003-3

Name and Address of Applicant:

Isabella County
200 North Main Street
Mount Pleasant, Michigan 48858

**Name and Address of Facility
Where Discharge Occurs:**

Isabella County Landfill
5650 Tomah Road
Mount Pleasant, Michigan
Isabella County
Isabella Indian Reservation
(NE ¼ of the SW ¼ of Section 19, T14N, R5W)
(Latitude: 43° 35' 15" Longitude: 84° 57' 30")

Receiving Water: Open drainage ditch to the Chippewa River

The above facility is located within the boundaries of the Isabella Indian Reservation. The EPA has retained the authority to issue NPDES permits to facilities with discharges to waters of the United States within Indian Country. The EPA is issuing this NPDES permit under the authorities of the Clean Water Act.

Section 401 Water Quality Certification

EPA is the appropriate authority for purposes of certifying the proposed discharge under Section 401 of the Clean Water Act. Section 401 certification is not needed from the state or the Saginaw Chippewa Indian Tribe as neither has federally approved water quality standards applicable to the receiving water at the point of discharge.

Facility Description:

The applicant is engaging in a groundwater remediation project at the Isabella County Landfill site, a closed landfill. Impacted groundwater is purged from three groundwater wells. The water from these wells is combined and passes through an air-stripper tower to remove volatile organic compounds (VOCs) from the purged groundwater. The air-stripper treated water then flows to a PVC lined settling pool and filter berm. The filter berm and settling pool increase aeration to minimize the naturally occurring high iron, alkalinity and hardness concentrations found in the sites upgradient groundwater, and allow any remaining trace amounts of VOCs to volatilize prior to discharging to a drainage ditch. The treated water eventually enters the Chippewa River.

Receiving Water

The Chippewa River is protected under Michigan Water Quality Standards (WQS) at the boundary of the Reservation for agricultural uses, navigation, industrial water supply, public water supply in areas with designated public water supply intakes, warm-water fish, other indigenous aquatic life and wildlife, partial body contact recreation, total body contact recreation (May through October), and fish consumption.

The receiving stream flows used to develop effluent limitations are a 95 percent exceedance flow of 85 cfs, a harmonic mean flow of 220 cfs, and a 90-day, 10-year low flow of 110 cfs.

Mixing Zone

For toxic pollutants, the volume of the Chippewa River used in assuring that effluent limitations are sufficiently stringent to meet Water Quality Standards is 25 percent of the applicable design flow of the receiving stream.

For other pollutants, the volume of the Chippewa River used in assuring that effluent limitations are sufficiently stringent to meet Water Quality Standards is the applicable design flow of the receiving stream.

Monitoring Point 001A- the permittee is authorized to discharge a maximum of 0.36 MGD of treated groundwater from Monitoring Point 001A through a drainage ditch to Outfall 001. Outfall 001 eventually discharges to the Chippewa River.

DISCHARGE LIMITATIONS, MONITORING AND REPORTING

<u>Parameter</u>	<u>Maximum Limits for Quantity or Loading</u>			<u>Maximum Limits for Quality or Concentration</u>			<u>Frequency of Analysis</u>	<u>Comment</u>
	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>	<u>Monthly</u>	<u>Daily</u>	<u>Units</u>		
Flow	(report)	(report)	MGD	---	---	---	Daily	PWJ
cis-1,2-Dichloroethene	(report)	---	lbs/day	---	5.0	ug/l	Monthly	BPJ
Dichlorodifluoromethane	(report)	---	lbs/day	---	5.0	ug/l	Monthly	BPJ
1,1-Dichloroethane	(report)	---	lbs/day	---	5.0	ug/l	Monthly	BPJ
Vinyl Chloride	(report)	---	lbs/day	---	3.0	ug/l	Monthly	BPJ
Benzene	(report)	---	lbs/day	---	(report)	ug/l	Monthly	PWJ
					<u>Minimum Daily</u>	<u>Maximum Daily</u>		
pH	---	---	---	6.5	9.0	S.U.	Monthly	WQS

Comment Key

BPJ – Best Professional Judgment of appropriate treatment technology based effluent limits in the absence of applicable federal standards

WQS – Water Quality Standards

PWJ – Permit Writer’s Judgment

Basis for Permit Requirements

The limits were developed to ensure compliance with applicable effluent guidelines and protection of Michigan water quality standards where they are applicable. In this regard, the Michigan Department of Environmental Quality (MDEQ) developed limits for this facility that would be protective of state water quality standards. Effluent limitations in the current permit for volatile compounds are regulated by treatment-based effluents limits. MDEQ ran a reasonable potential analysis on the DMR data and all data met water quality standards. EPA believes the limits are appropriate and will use them. EPA is also requiring influent and effluent monitoring for benzene. The most recent data submitted by the permitting with the application indicates that benzene levels are increasing, though not to levels that would require a limit. Regular sampling will provide a basis for a limit in the future, if needed. Best professional judgment and permit writer’s judgment are also used to set the permit requirements.

Special Conditions

- The discharge of water additives is not authorized without approved from the EPA.
- The permit does not authorize any discharge to groundwater or venting of contaminated groundwaters to surface waters.

Significant Changes From The Last Permit

Following are the significant changes in the draft permit:

- Influent and effluent monitoring for benzene has been included.
- The treatment facility description has been expanded.
- The township and range has been changed to reflect the location of the discharge to the drainage creek.
- The “Standard Conditions” have been revised (Part II).

ESA and NHPA Compliance

EPA believes it has satisfied its requirements under the Endangered Species Act and the National Historical Preservation Act. As this is an existing discharge, with no planned construction during permit term, we do not believe the discharge will have any effect on historic properties or threatened or endangered species.

The permit is based on an application dated March 27, 2013 and additional supporting information found in the administrative record.

The permit will be effective for approximately five years from the date of reissuance as allowed by 40 CFR 122.46.

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December, 2013

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