

Illinois Environmental Protection Agency
Bureau of Air
Permit Section

June 2015

Responsiveness Summary for the
Construction Permit Application from
Winnebago Reclamation Services for the
West Expansion Unit at the
Winnebago Landfill
Rockford, Illinois

Source Identification No.: 201801AAF
Application No.: 13090005

Table of Contents

	<i>Page</i>
Decision.....	2
Background.....	2
Comment Period	2
Availability of Documents.....	3
Questions and Comments with Responses by the Illinois EPA	3
Comments on Surface Water And Groundwater Pollution.....	7
For Additional Information	8

DECISION

On June 25, 2015, the Illinois Environmental Protection Agency (Illinois EPA) issued an air pollution control construction permit to Winnebago Reclamation Services to construct the West Expansion Unit at the Winnebago Landfill, a municipal solid waste landfill located south of Rockford.

Copies of the issued permit can be obtained from the contact listed at the end of this document. The permit and additional copies of this document can also be obtained from the Illinois EPA website www.epa.illinois.gov/public-notices/index.

BACKGROUND

On September 6, 2013, the Illinois EPA Bureau of Air received a construction permit application from Winnebago Reclamation Services (Winnebago Services) requesting a permit to construct the West Expansion Unit at the Winnebago Landfill. The West Expansion Unit would be a new area at the landfill with a design capacity of 8.3 million cubic yards of waste. It would be separated from the existing areas at the landfill at which waste is currently being handled or has been received in the past. The primary source of emissions of the new waste disposal unit would be landfill gas generated by the decomposition of waste deposited in this new unit. The project also includes a landfill gas collection and control system, which will include both temporary and permanent collectors and piping to connect the collected landfill gas and a new flare adjacent to the disposal area.

The construction permit issued for this project identifies the applicable rules governing emissions from the proposed new waste disposal area and associated landfill gas collection and control system and establishes enforceable limits on its emissions. The permit also establishes appropriate compliance procedures, including requirements for emissions testing, continuous monitoring, recordkeeping and reporting.

COMMENT PERIOD

The Illinois EPA Bureau of Air evaluates applications and issues permits for sources of emissions. An air pollution control permit application must appropriately address compliance with applicable air pollution control laws and regulations before a permit can be issued. Following its initial review of Winnebago Reclamation Service's application, the Illinois EPA Bureau of Air made a preliminary determination that the application met the standards for issuance of a construction permit and prepared a draft permit for public review and comment.

The public comment period began with the publication of a notice in the Rockford Register Star on December 6, 2014. The notice ran again in the Rockford Register Star on December 13, 2014 and December 20, 2014. A public hearing was held on January 20, 2015 at the New Milford Fire Department to receive oral comments and answer questions regarding the application and draft construction permit. The comment period closed on February 19, 2015.

AVAILABILITY OF DOCUMENTS

The permit issued to Winnebago Reclamation Services (Winnebago Services) is available at the Illinois EPA's internet site at www.epa.illinois.gov/public-notices/index. Copies of the permit and this responsiveness summary may also be obtained by contacting the Illinois EPA at the telephone numbers listed at the end of this document

QUESTIONS AND COMMENTS WITH RESPONSES BY THE ILLINOIS EPA

(Each question or comment is followed by the response by the Illinois EPA in bold-face type)

1. Where will the new West Expansion Unit be located? Will it be closer to or further from Baxter Road?

The West Expansion Unit will be adjacent to State Route 251 and close to Edson Road. It will be farther south from Baxter Road than the area of the landfill that is currently active.

2. How big will the new proposed new unit be compared to what the Winnebago Landfill already has?

The permitted capacity of the West Expansion Unit is 8.3 million cubic yards. The permitted capacity of the currently active North Expansion Unit at the landfill is approximately 10.7 million cubic yards.

3. How many acres will it be?

The area of the West Expansion Unit will be approximately 60 acres.

4. Will the West Expansion Unit be at least 500 feet away from the neighboring residential subdivision?

Yes, the West Expansion Unit will comply with 35 IAC 811.302(d), which prohibits a waste disposal unit from being constructed within 500 feet of an occupied dwelling. The West Expansion Unit is approximately 2500 feet from the closest house in the Living Woods Subdivision.

5. Will there be new flares for the West Expansion Unit? How many flares will there be?

There will be a new flare as part of the gas collection and disposal system for the West Expansion Unit. Additionally, there is a provision in the permit for installation of a second flare if needed as a backup.

6. Are there any plans to capture the methane in the landfill gas generated by the West Expansion Unit or to recycle it?

Winnebago Services has not proposed another landfill-gas-to-energy facility as part of its application for the West Expansion Unit. Winnebago Services currently plans to flare all collected landfill gas, including the methane in the landfill gas. If in the future Winnebago Services decides that it wants to construct a landfill-gas-to-energy facility that would use landfill gas collected from the West Expansion Unit, it would need to obtain an additional construction permits for that facility.

7. Does the landfill have trucks that run on landfill gas? If so how is the gas collected and stored for use in the trucks.

At this time, the landfill does not have trucks that run on landfill gas.

8. What are the health concerns that one might have regarding this project?

Modern landfills are designed in accordance with federal and state regulations, including liner systems, groundwater monitoring, leachate collection and gas collection systems to prevent health impacts from the landfills. The regulations have been developed to prevent the concerns associated with uncontrolled landfills of the past that were in operation prior to the development of these regulations.

9. Is Winnebago Services going to take the steps to alleviate nuisance problems?

To mitigate the development of nuisance conditions from the new West Expansion Unit, Winnebago Services must install and operate an enhanced landfill gas collection system at this unit. Among other measures required by the permit, this permit reflects new developments and continuing improvements in steps that can be taken to collect landfill gas from municipal waste landfills. In this regard, the permit issued for the West Expansion Unit does require Winnebago Services to comply with requirements for collection of landfill gas developed from rules recently adopted by the California Air Resources Board. These rules set requirements for the concentrations of methane at the surface of a municipal waste landfill that are more stringent than the requirements under applicable USEPA rules. The concentration of methane at the surface of a landfill is an indicator of how effectively landfill gas is being collected. More stringent limits for the levels of methane at the surface of a landfill require that the landfill gas generated by a municipal waste landfill be more effectively collected.

10. Has Winnebago Services been in violation of its permits? Why would one think it would follow a new permit? I believe it is in violation of the Clean Air Act. Why would the new flare be any different? Winnebago Services should comply with applicable regulations before it is granted a new permit.

Winnebago Services recently entered into a Consent Decree with the State of Illinois to resolve alleged violations of air pollution control requirements at the existing Winnebago Landfill. (People of the State of Illinois, *ex rel.*, Lisa Madigan, Attorney General of the State of Illinois, v. Winnebago Reclamation Services, Illinois Circuit Court, Seventeenth Judicial Circuit, Winnebago County, No. 11 CH 1088, entered April 8, 2015.) As part of this Consent Decree, Winnebago Services agreed to pay a penalty of \$219,000. This Consent Order requires Winnebago Services to undertake correctives actions for the existing landfill.

The review of a permit application and subsequent permit decision-making is a separate process from the enforcement process. During permitting, the Illinois EPA must base its decisions on the application provided by the applicant and applicable regulations, considering whether the application provides information showing the applicant's operation, procedures, and equipment can consistently meet the applicable state environmental laws and rules. If so, the Illinois EPA is required by law to issue the permit. (See Section 39(a) of the Illinois Environmental Protection Act, 415 ILCS 5/39.) The source will then be required to operate within the limits provided by the permit. The enforcement process is designed to bring a source back into compliance. In an enforcement action, measures can also be imposed to facilitate future compliance and discourage or prevent future noncompliance.

11. Will the new flare for the West Expansion Unit have to comply with the emission standards adopted by the State of California?

No. The new flare will have to comply with requirements for landfill gas flares adopted by USEPA. These requirements are very effective in assuring that landfill gas that has been collected is then properly controlled by being flared or burned. The new requirements adopted by the California Air Resources Board, which are the basis of certain provisions of the permit of the West Expansion Unit, deal with the effectiveness of collection of landfill gas.

12. Was only one flare operating at the Winnebago Landfill between approximately 2012 and 2014? Prior to this period and after this period, two flares have been operating.

During the period when only one flare at the landfill was typically in operation, the gas-to-energy facility at the source was also operating and less landfill gas needed to be flared. This is because the preferred disposition of landfill gas collected from the older portion of the landfill was the gas-to-energy facility, which used the landfill gas as fuel to generate electricity. This facility ceased operation in late 2014, so all collected landfill gas must now be flared. The amount of landfill gas that is currently being generated and collected from the existing landfill is such that both flares need to be used to control this gas.

13. Is there a permit for the second flare the landfill relit or built in the summer of 2014? I was unable to find the current permit for it.

The two existing flares at the Winnebago Landfill are addressed by permits. Flare 1 is covered by Permit 02040025 originally issued in 2002. Flare 2 is covered by Permit 04120073 originally issued in 2005. Both permits were revised on August 4, 2011.

14. Will Winnebago Services have to retrofit the two existing flares to meet new standards?

Changes are not required for the existing flares. As already discussed, Winnebago Services must install and operate an enhanced landfill gas collection system for the West Expansion Unit, to ensure that the landfill gas generated by this new waste disposal area is effectively collected and is ducted to the new flare system rather than escaping directly to the atmosphere. Pursuant to the recent consent decree, Winnebago Services must also meet more stringent requirements for collection of landfill gas from the existing landfill.

15. a. Is there a device that could be used off site in real time that would show the amount of heat generated by the flares?

The heat generated by a flare can be calculated from the amount of landfill gas that is flared and the heat content of the flare. However, this would not be of particular value. The concern for proper operation of a flare at a landfill is that it is properly designed and sized and that landfill gas is actually being combusted, i.e., that the flame has not gone out.

- b. Is there a device that could show the amount of particulate emitted by the flare?

There is not a device to monitor the amount of particulate matter generated by a flare or landfill. Again, such a device would not be of particular value. The concern for proper operation of a flare at a landfill is that it is properly designed and sized and that landfill gas is actually being combusted.

- c. Is there a device that could show the air quality for the day? Could one possibly be considered for the southern part of the landfill I have real concern?

It is impractical to conduct ambient air quality monitoring for an individual landfill. However, real-time information for the general status of the air quality in a region is available from the Air Quality Index Forecast System (<http://airnow.gov/>).

16. Winnebago Services does not keep papers, trash and other litter from blowing off-site from the landfill.

Winnebago Services is required to contain blowing trash pursuant to state rules, 35 IAC 811.107(k) and 812.108(j). Winnebago Services' litter control plan was approved under Permit No. 2010-133-LF issued by the Illinois EPA, Bureau of Land. The plan involves minimizing litter through the use of daily cover materials

(including soil, synthetic covers and alternate daily cover materials approved by the Illinois EPA) and by patrolling around the perimeter of the landfill and surrounding property to collect litter that escapes the active fill area.

17. I have complained to the Illinois EPA about odors, dust and particulate matter from the Winnebago Landfill many times. It is clearly a nuisance.

The existing Winnebago Landfill has been an inordinate source of odors. Because of this, Winnebago Services was the subject of the enforcement action to require steps to be taken to more effectively collect the landfill gas generated by the landfill.

18. Winnebago Services does not consistently apply daily cover material at the existing landfill, as I have also stated in my complaints to the Illinois EPA.

The Illinois EPA has followed up on these allegations. This follow-up has not found that Winnebago Service was not properly applying daily cover material. Winnebago Services is permitted to use certain alternative materials, other than soil, for daily cover. What may have been observed was the use of these alternative materials rather than soil for daily cover.

19. When I have watched trucks arriving at the Winnebago Landfill, I have never seen landfill personnel checking the contents of the loads of waste using the catwalk near the entrance to the landfill.

The waste material that is delivered to the landfill for disposal is checked at the active area of the landfill where the trucks dump their loads. This is a more effective way to inspect the material because it is spread out. Any loads of material or Items that are not appropriate for disposal at the landfill can be loaded back into the truck for disposal at another appropriate facility.

20. I live very close to the western boundary of the Winnebago Landfill. On numerous occasions, I have experienced a metallic sulfuric odor.

Metallic-type odors, as addressed by this comment, are typically not associated with landfills. More information would be needed to determine whether these odors are how this commenter experiences certain odors from the Winnebago Landfill or are attributable to something other than the landfill.

COMMENTS ON SURFACE WATER AND GROUNDWATER POLLUTION

1. I have serious concerns with water and ground water contamination on the landfill site. There are no transparent water testing mechanisms that the public is entitled to see from Winnebago Landfill. The landfill sends samples to its private laboratories instead of using Illinois EPA laboratories. Why is this?

Winnebago Services is required to operate a network of groundwater monitoring wells around the Winnebago Landfill to identify any subsurface leakage from the landfill and prevent contamination of groundwater. As the operator of this landfill, Winnebago Services is responsible for taking routine samples from these wells and having them analyzed by a qualified laboratory. The Illinois EPA does not have the resources to conduct this sampling and analysis itself. This approach to groundwater monitoring at landfills, with the responsibility and burden for this monitoring placed on the source, has been found to provide reliable data. In part, this is because falsification of this monitoring data, like falsification of other data required to be collected by a permit, is a criminal act and carries criminal liabilities.

Winnebago Services reports the result of its groundwater monitoring to the Illinois EPA on a quarterly basis. These reports are public information and copies of these reports may be obtained by submitting a request to the Illinois EPA's under the Freedom of Information Act (FOIA).

2. The Winnebago Landfill has been polluting Kilbuck Creek. There is obvious milky-white water being pumped into the creek.

This comment about water pollution from the existing Winnebago Landfill has been referred to the Illinois EPA's Bureau of Water for further investigation.

Leachate from the West Expansion Unit will be discharged to the Rock River Water Reclamation District by a force main connection to a sanitary sewer. The landfill has an NPDES permit from the Illinois EPA's Bureau of Water that regulates this discharge.

FOR ADDITIONAL INFORMATION

Questions about the public comment period and the permit decision should be directed to:

Brad Frost
Illinois Environmental Protection Agency
Office of Community Relations
1021 North Grand Ave, East
PO Box 19506
Springfield, IL 62794-9506

217-782-7027
217-782-9143 TDD