

INTRADEPARTMENTAL MEMORANDUM

FILE: Rolla Solid Waste Management Facility (0358)

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SUBJECT: Permit Application Review

DATE: December 22, 2023

Introduction

On March 29, 2023, the North Dakota Department of Environmental Quality (Department) received a permit application for a renewal for the Rolla Solid Waste Management Facility.

The City of Rolla currently owns and operates an inert waste landfill regulated under Permit 0358 on 8.55 acres located in SW ¼ of the NW ¼ and the NW ¼ of the SW ¼ of Section 21, Township 162N, Range 69W in Rolette County, ND. The Rolla Solid Waste Management Facility is proposing to renew their permit to continue operating an inert waste landfill. The facility was first permitted in 2011.

Design

Access to the facility is controlled by a cable with a lock to prevent unwanted waste disposal when the landfill is closed. There is one shallow disposal pit on site for receiving inert wastes. An earthen stockpile is onsite for covering wood ashes through Department approved burn variances.

Operation

The landfill's Plan of Operation allows only inert wastes for disposal, including clean-burning waste wood, tree cuttings and stumps. Limited quantities of broken concrete, asphalt and waste metal can be received with the goal of eventual recycling of these materials. No putrescible (decaying) municipal solid wastes are allowed, or household/business hazardous or industrial wastes. The facility is only open when a landfill staff person is on site and is otherwise closed to

the public, except when area residents contact the city and set appointments to dispose of their inert wastes.

Closure

The facility submitted a sequential pit closure or a final facility closure plan. The plan states that the closed landfill site will be graded to minimize erosion and optimize drainage of precipitation falling on the landfill. The final cover will have a minimum slope of three percent and a maximum slope of fifteen percent. The facility will utilize either a 2-foot-thick cover consisting of at least 12 inches of compacted clay-rich soil, 6 inches of uncompacted clay-rich soil and at least 6 inches of topsoil, or a 4-foot-thick cover consisting of at least 42 inches of clay-rich soil and at least 6 inches of topsoil. The facility will decide which final cover when they reach the point of closure and depending on the soils available on-site at the time. The final cover will be seeded with native grasses.

Compliance History

The following items of noncompliance have been noted since 2011;

- Failure to provide an annual report for 2020 and 2021.
- Nonburnables in the burn pile.
- Gate was open at the time of inspection.

The above items of noncompliance have been appropriately addressed by the facility, and no formal notices of violations have been issued to the facility.

Solid Waste Management Rules (NDAC Article 33.1-20)

NDAC Section 33.1-20-02.1-05. Record of notice.

A copy of the original record of notice from 2011 was included with the application.

NDAC Section 33.1-20-02.1-06. Property rights.

The City of Rolla owns the landfill property that covers approximately 8.55 acres.

NDAC Section 33.1-20-03.1-01. Preapplication procedures.

A preapplication is not required for an inert waste landfill.

NDAC Section 33.1-20-03.1-02. Permit application procedures.

NDAC Subsections 33.1-20-03.1-02(1) – (3)

The City of Rolla submitted a permit application, including on forms available from the Department, which were filled out and signed by city applicants. Electronic and paper copies of the signed application and supporting documents were submitted to the Department.

NDAC Subsection 33.1-20-03.1-02(4)

A public notice by the facility is not required for a permit renewal and no major modifications are being proposed.

NDAC Subsection 33.1-20-03.1-02(5)

Notification to the North Dakota Public Service Commission is not required as the facility is not proposing to dispose of coal processing wastes in a mining permit area.

NDAC Subsection 33.1-20-03.1-02(6)

Applications for a solid waste management unit or facility permit must include the following information where applicable:

a. A completed application form, subsection 1;

The City of Rolla submitted a permit application, including on forms available from the Department, which were filled out and signed by city applicants. Electronic and paper copies of the signed application and supporting documents were submitted to the Department.

b. A description of the anticipated physical and chemical characteristics, estimated amounts, and sources of solid waste to be accepted, including the demonstration required by North Dakota Century Code section 23.1-08-14;

The inert facility receives only inert materials on special appointments from residents of Rolla and some surrounding farms, including clean-burning demolition wood, tree cuttings, stumps and occasional scrap metal, plastics. Any non-burnable inert wastes are either rejected by the facility, or on occasion, buried in the disposal pit.

c. The site characterization of section 33.1-20-13-01 and a demonstration that the site fulfills the location standards of section 33.1-20-04.1-01;

The facility is located in clay-rich glacial till and loam and lies less than 200 feet from an intermittent wetland/coulee located east/southeast of the site. In 2011, there was a well near the facility boundaries, but no drilling information was found within city's files after a search was conducted for the information. In addition, there was a concrete building foundation in the northeastern portion of the site and an intact building was in the southeast sector.

In addition, a review of several groundwater wells in the Rolla Aquifer that underlies the site and dug in the 1950s revealed that the water rated low as an sodium (alkali) hazard for irrigation uses (from: U.S. Salinity Laboratory Staff 1954, *in Ground Water Resources of Bottineau and Rolette Counties, North Dakota: County Ground-Water Studies 35—Part III, North Dakota State Water Commission, and Bulletin 78-- Part III, North Dakota Geological Survey*. P.G. Randich and R.L. Guzniar, USGS 1984, 46 p.). Due to these

hydrological reports and well data, the inert landfill does not pose any threat to the underlying Rolla Aquifer.

No inert wastes are disposed of within the Rolla Aquifer and the landfill does not lie within a designated wellhead protection area. The landfill is not situated within a hundred-year floodplain, or in any geologic or manmade structures. It does not lie within channels, ravines, steep topography or within woody draws or areas designated as critical plant/animal habitats.

The inert facility is situated in clay-rich glacial till and loam that lies over the Rolla Aquifer; however, the landfill receives only inert wastes that do not pose a threat of groundwater pollution. There are also no downgradient drinking water supply wells closer than a thousand feet from the landfill. In addition, the facility does not lie near any surface mines, and there are no state or national parks in the region. However, as noted above, there was one well near the landfill boundaries, but it is inactive and no drilling information for the well exists.

The landfill is not situated within ten thousand feet of any airport runway and exceeds the requirement of a minimum horizontal separate of twenty-five feet between the landfill boundaries and any above or below ground pipeline or transmission lines.

d. Soil survey and segregation of suitable plant growth material;

A facility soil survey utilizing NRCS data was included with the original inert landfill permit application materials submitted in 2010 and 2011. The soils data was extensively reviewed and discussed in the Department's initial review of the facility in 2011. Based on the soils, site location and geology, all solid waste disposal/burial activities should be confined to the area underlain by Barnes-Buse soil. There are segregated piles of topsoil and subsoil within the facility.

e. Demonstrations of capability to fulfill the general facility standards of section 33.1-20-04.1-02;

Open burning of the waste woodpile within the inert waste facility is prohibited without the filing of a Department-approved burn variance application. The facility has in place adequate signs at the entrance to the facility for the public that lists contact information, acceptable/unacceptable wastes and days/hours of operation.

f. Facility engineering specifications adequate to demonstrate the capability to fulfill performance, design, and construction criteria provided by this article and enumerated in this subdivision;

1) Transfer stations and drop box facilities, section 33.1-20-04.1-06.

The requirements of this section are not applicable as the facility is not proposing a transfer station or a drop box facility.

2) Waste piles, section 33.1-20-04.1-07.

The requirements of this section are not applicable as the facility is not proposing to manage any waste piles.

3) Resource recovery, section 33.1-20-04.1-08.

The requirements of this section are not applicable as the facility is not proposing any resource recovery activities.

4) Land treatment, section 33.1-20-04.1-09 and chapter 33.1-20-09.

The requirements of this section are not applicable as the facility is not proposing a land treatment facility.

5) Non-CCR surface impoundments, section 33.1-20-04.1-09 and chapter 33.1-20-08.1.

The requirements of this section are not applicable as the facility is not proposing any surface impoundments.

6) Any disposal, section 33.1-20-04.1-09.

The landfill has access for equipment to excavate, compact and cover wastes with subsoil materials. The interior road is gravel and it is maintained in good condition. The facility maintains an adequate supply of suitable earthen material onsite for the disposal pit(s) usage and closure, including segregated topsoil. Facility staff work to control vectors within the facility.

The landfill has sufficient slope to aid in controlling run-on and run-off for twenty-five year, twenty-four hour storms.

7) Inert waste landfill, chapter 33.1-20-05.1.

Access to the facility is controlled by a thick wire with a lock attached to a metal post when the facility is closed to the public. The facility receives only inert waste for disposal. Wood ashes from approved burn variances are spread within the disposal pit and covered with earthen material. The facility meets the minimum requirement of six inches of suitable earthen cover twice a year, each year. The facility operation is limited to an area no larger than necessary for the disposal of wood ashes from tree cuttings and clean burning demolition wood.

8) Municipal waste landfill, chapter 33.1-20-06.1.

The requirements of this section are not applicable as the facility is not proposing a municipal waste landfill.

9) Industrial waste landfill, chapters 33.1-20-07.1 or 33.1-20-10.

The requirements of this section are not applicable as the facility is not proposing an industrial waste landfill.

10) TENORM waste landfill, chapters 33.1-20-07.1 or 33.1-20-10 and 33.1-20-11

The requirements of this section are not applicable as the facility is not proposing a TENORM waste landfill.

11) Special waste landfill, chapter 33.1-20-07.1;

The requirements of this section are not applicable as the facility is not proposing a special waste landfill.

12) CCR unit, chapter 33.1-20-08;

The requirements of this section are not applicable as the facility is not proposing a CCR unit.

13) Municipal solid waste ash landfills, chapter 33.1-20-10;

The requirements of this section are not applicable as the facility is not proposing a municipal solid waste ash landfill.

14) Regulated infectious waste unit, chapter 33.1-20-12;

The requirements of this section are not applicable as the facility is not proposing a regulated infectious waste unit.

g. The plan of operation of section 33.1-20-04.1-03;

The landfill's Plan of Operation includes a brief description of inert wastes (clean burning tree cuttings and demolition wood), and a health and safety plan that includes fire emergencies, stormwater control, and sufficient earthen stockpiles. The plan also includes safety procedures for fire and stormwater runoff emergencies at the facility.

h. Demonstration of the treatment technology of section 33.1-20-01.1-12;

The requirements of this section are not applicable as the facility is not proposing to treat waste.

i. The place where the operating record is or will be kept, section 33.1-20-04.1-04;

The operating record is kept at City of Rolla's City Hall.

j. Demonstration of capability to fulfill the groundwater monitoring, sections 33.1-20-08-06 or 33.1-20-13-02;

The requirements of this section are not applicable as the facility is an inert waste landfill or transfer station and groundwater monitoring is not required.

k. Construction quality assurance and quality control;

The closure plan addresses construction quality assurance and quality control for the final cover. The facility will follow the Department's Guideline 5: Quality Assurance For Construction Of Landfill And Surface Impoundment Liners, Caps, And Leachate Collection Systems.

l. Demonstrations of capability to fulfill the closure standards, section 33.1-20.1-04.1-05 and otherwise provided by this article;

The facility submitted a sequential pit closure or a final facility closure plan. The plan states that the closed landfill site will be graded to minimize erosion and optimize drainage of precipitation falling on the landfill. The final cover will have a minimum slope of three percent and a maximum slope of fifteen percent. The facility will utilize either a 2-foot-thick cover consisting of at least 12 inches of compacted clay-rich soil, 6 inches of uncompacted clay-rich soil and at least 6 inches of topsoil, or a 4-foot-thick cover consisting of at least 42 inches of clay-rich soil and at least 6 inches of topsoil. The facility will decide which final cover when they reach the point of closure and depending on the soils available on-site at the time. The final cover will be seeded with native grasses.

m. Demonstrations of capability to fulfill the postclosure standards, section 33.1-20-04.1-09 and otherwise provided by this article; and

The facility's closure plan addresses post-closure and includes annual inspections of the final cover and making repairs as necessary to correct settlement, erosion and subsidence. The plan states that the facility will conduct 5 years of post-closure care.

n. A disclosure statement as required by North Dakota Century Code section 23.1-08-17.

A disclosure statement that meets the requirements of this section was submitted to the Department.

Conclusion

Based on the submitted application and items discussed above, City of Rolla has shown that the renewal meets the requirements of the North Dakota Solid Waste Management Rules. It is proposed that the Department grant City of Rolla a permit with the conditions listed in Permit 0358. The proposed permit length is for a period of 10 years because the facility has a good compliance record.

CRH:DAT:KDJ
Attachment