



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182

denr.sd.gov

June 9, 2016

Kevin Roth, Street and Sanitation Superintendent
City of Mitchell
612 North Main Street
Mitchell, SD 57301

Re: Inspection of the Mitchell Municipal Solid Waste Landfill

Dear Mr. Roth:

On May 18, 2016, I conducted an inspection of the Mitchell Municipal Solid Waste Landfill (permit number 12-02) with the assistance of Jay Tollefson and yourself. The purpose of this inspection was to review operation and maintenance of the landfill, and determine if the operation of the landfill is in compliance with South Dakota solid waste disposal rules and the city of Mitchell's solid waste permit.

The inspection of the landfill showed that the operation and maintenance of the landfill is acceptable and with one exception is in full compliance with South Dakota solid waste laws and rules and the permit conditions. Please refer to the following requirement. The requirement is a compliance issue that the city of Mitchell needs to address. The recommendations are for your information to maintain compliance with solid waste rules and to improve the operation of your facility.

Requirement

1. Within 30 days of receipt of this inspection report, the operator will need to place additional funds in the financial assurance account to meet the accrued liability through 2015 and provide that documentation to this office.

Reminders

1. The operator will need to ensure that adequate financial assurance funds are set aside at the end of 2016 to cover the accrued liability accumulated this year.
2. The operator needs to take additional measures to get the standing leachate pumped out of Cell #3 as soon as possible.

If you have any questions, or if you would like to discuss the contents of the inspection report, please do not hesitate to contact me at (605) 773-3153.

Sincerely,

A handwritten signature in blue ink that reads "Steven Kropp". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Steven Kropp, P.E.
Waste Management Program

Enclosure

**South Dakota Department of Environment and Natural Resources
Waste Management Program
Municipal Solid Waste Landfill Inspection Report**

Facility Owner: City of Mitchell Date of Inspection: May 18, 2016
Address: 612 North Main Street, Mitchell, SD 57301 County: Davison
Contact's Name, Title & Telephone #: Jay Tollefson, Landfill Manager, (605) 995-8448
Kevin Roth, Street & Sanitation Supt., (605) 995-8465
Date of Last Inspection: July 28, 2015 Permit #: 12-02 Type of Facility: IIA
Tonnage received for disposal in 2015: 29,404 tons
Tonnage received for disposal Jan. – April 2016: 13,413 tons
Tipping Fee: \$39/ton MSW & Rubble; \$20/ton for trees

Narrative

On May 18, 2016, I met with Jay Tollefson (Tollefson) and Kevin Roth (Roth) at the Mitchell landfill scale house. Tollefson and Roth accompanied me during the inspection. We began the inspection by traveling around the landfill where we observed the various waste storage and disposal areas and discussed solid waste handling and disposal practices for these areas. We returned to the scale house to review the records and documentation required by the operator's solid waste permit. We also discussed solid waste operations and the upcoming permit renewal application. Pictures were taken during the on-site inspection and are attached to this report.

Design Standards (ARSD 74:27:12)

1. South Dakota Highway 37 passes one and one-half miles west of the landfill. The primary access road (257th Street) that leads from the highway to the landfill is a blacktop paved road. The operator maintains this road. The on-site roads at the landfill are well maintained. Tollefson stated that there are no problems with access to the lined municipal solid waste (MSW) disposal area during inclement weather conditions.
2. There are signs posted at the entrance to the landfill and at the scale house with the following information: name of the landfill, phone numbers for the landfill and street & sanitation department, days and hours of operation, emergency contact information, landfill tipping fees and the requirement that all incoming loads must be secured. There are signs posted around the landfill showing where the various waste disposal and waste storage areas are located.

3. Access to the landfill is controlled by the use of fencing, lockable gates at the main entrance to the landfill, and natural topography. The operator uses portable litter fences at the face of the MSW unloading area, fixed fencing around the MSW disposal area and around the perimeter of the landfill to help control litter.
4. The landfill has been designed to divert normal surface water flow and storm water runoff away from the active fill area. Surface water is directed away from the MSW disposal area by perimeter ditches and storm sewer piping along with natural topography. Surface water is stored in a storm water pond located in the southwestern corner of the site. The landfill employees make periodic inspections of the water level in the storm water pond. The operator does have a storm water discharge permit for the storm water pond through the Surface Water Quality Program (SD00B408). The storm water pond has a culvert with a vertical slide gate so that the operator can manually drain the storm water pond into the constructed wetlands located south of the storm water pond. Tollefson stated that the landfill has not discharged any storm water from the pond since 2013. However with all of the recent rains the area has received, Tollefson said that the landfill will be discharging storm water from the pond to the wetlands in the near future.

Facility Operation (ARSD 74:27:13)

1. The landfill is only open when there are adequate supervisory and operational personnel at the landfill. The landfill employs four full-time employees. The landfill has an adequate scale that is located south of the scale house. The operator has the scale certified annually by the South Dakota Department of Public Safety – Weights and Measures Program. The Weights and Measures Program last certified the scale in September 2015.
2. Tollefson said that the landfill staff typically tries to maintain a working face that's 50 feet wide by 100 feet long. The operator spreads the waste in lifts that are no more than two feet in thickness. The compactor operator makes a minimum of three to five passes over the waste to ensure the waste is sufficiently compacted. Tollefson said that the landfill compactor has a Global Positioning System (GPS) installed in it. The GPS system is designed to help the compactor operator determine when the MSW is adequately compacted.
3. The operator uses a spray-on alternative daily cover material (Posi-Shell) to cover the wastes at the end of the working day. The operator uses soil at least once per week as cover to meet a permit condition that requires soil to be used once per week as cover. The operator is permitted to use petroleum contaminated soil (PCS) as daily cover. No vector issues were noted at the time of the inspection.
4. The landfill uses 30 portable litter fences at the working face and fixed litter fences around the MSW disposal area and the perimeter of the landfill to help control litter. There were a few pieces of litter noted in the portable litter fences and within the litter fences surrounding the MSW disposal area. A couple of pieces of litter were observed outside of the MSW disposal area. No litter was observed outside of the permitted boundary. The solid waste permit for the landfill requires the operator to perform at least daily litter pickup. Tollefson stated that the landfill employees perform daily litter pickup at the landfill. In addition, the Mitchell Street and Sanitation

Department's collection workers also help pick up litter. The operator also picks up litter along 257th Street to South Dakota Highway 37 to the edge of Mitchell city limits.

5. In the past, the operator burned trees, tree branches, and untreated wood as needed. The operator now stockpiles the clean wood waste south of Cell #2. There's one large pile of trees and branches and another large pile of pallets and untreated wood. The operator has an agreement with Mueller Pallet to have them come to the landfill and grind the clean wood waste for recycling/reuse. Last year, the landfill accepted 2,610 tons of clean wood waste. Oversized tree trunks that cannot be ground are hauled to the Mitchell restricted use facility for disposal.
6. The operator accepts a number of special wastes for disposal or temporary storage and future recycling. The landfill will accept pesticide containers from the public for disposal. The operator requires the pesticide containers be triple rinsed and punctured prior to acceptance at the landfill for disposal. Tollefson stated that the landfill receives very few pesticide containers anymore due to the SD Department of Agriculture's pesticide container cleanup program. The operator does accept PCS for disposal. The operator's permit has a variance in it that allows the landfill to accept PCS for use as daily cover or direct disposal provided that the PCS is not a hazardous waste. The landfill accepted 1,382 tons of PCS last year. The landfill does accept regulated asbestos containing wastes for disposal. The regulated asbestos containing waste is buried with MSW in the lined disposal area and its location and elevation is mapped by the operator's engineering department. The operator accepted 29 cubic yards of regulated asbestos containing wastes last year and none during the first four months of 2016. The operator does accept dead animals for disposal at the landfill. The dead animals are mainly small household pets and small roadkill animals. The dead animals are disposed of directly in the active fill area and covered with MSW immediately.
7. The landfill accepts materials that could go to a restricted use facility for disposal. The landfill buries these materials with MSW in the lined disposal area. The landfill does accept lead-acid batteries from the public for temporary storage and future recycling. Batteries are picked up for recycling by German Auto, Dimock, SD. The landfill does not accept waste oil from the public. The landfill refers the public to local businesses that will accept waste oil from the public. The landfill stores the waste oil that it generates in a 260-gallon tank, and the tank is clearly labeled as waste oil. The operator has LubeTech Liquid Recycling from DeSmet, SD, pick up the waste oil for recycling.
8. The landfill accepts appliances that contain refrigerants for temporary storage and recycling. The landfill has staff that is certified to remove the refrigerants from the appliances. The operator temporarily stores the refrigerants on-site. The operator periodically takes the refrigerants to Johnstone Supply, Sioux Falls, SD, for recycling. The operator has H&R Salvage come to the landfill and they recycle the appliances, white goods, and other salvageable metal the landfill collects. The operator accepts waste tires for temporary storage. The operator has New Deal Tire, LLC of Groton, SD, pick up the waste tires for processing. The operator's permit allows the landfill to dispose of quartered/shredded tires within the lined MSW disposal area. The landfill disposed of 99 tons of shredded tires in 2015 and 14.2 tons so far this year. The operator does accept yard waste from the public for composting. The composting

area is located west of the scale house and has been constructed with a recycled asphalt/concrete base. The composting area has been designed to control surface water run-on and runoff. Surface water that comes into contact with yard waste is handled as leachate and is directed to a storage pond located west of the composting area. The operator has the finished compost tested and registered with the SD Department of Agriculture.

9. The operator conducts random inspections of incoming waste loads to ensure no unauthorized wastes are being disposed of at the landfill. Landfill personnel are also trained to recognize hazardous or suspicious wastes. The load inspection sheet includes information as to the date of the inspection, vehicle identification, materials noted in the load, whether any additional action was taken and locations for the landfill employee and hauler to sign the inspection sheet. Tollefson is Manager of Landfill Operations certified through the Solid Waste Association of North America. The landfill employees periodically have personnel and safety training with other city of Mitchell employees as well as attending SD Solid Waste Management Association meetings where additional training opportunities exist. All newly hired employees are trained on landfill operations.
10. The operator maintains computerized tonnage reports. A copy of the 2015 and the 2016 Jan. – April tonnage reports were provided by the operator and are attached to this inspection report. Dependable Sanitation, Aberdeen, SD, offers recycling services to the city of Mitchell. The Mitchell Street Department recycles asphalt and concrete. Other recycling and reduction efforts are done at the county and local levels. The operator updated the Source Reduction and Recycling Plan for the landfill as part of the 2011 permit renewal application.
11. The operator's engineering department performs fill progression survey calculations at the landfill. The operator maintains copies of past permit applications, permits, plans and specifications and other required information at the scale house and the Mitchell Street and Sanitation Department.
12. Leachate from the lined MSW disposal is collected in a subsurface collection system which pipes the leachate to the Mitchell wastewater treatment facility for disposal. The treatment facility is adjacent to the landfill on the north side of the permitted boundary of the landfill. During the first four months of this year, the landfill has sent 1,096,000 gallons of leachate to the Mitchell wastewater treatment facility. The operator has the leachate tested twice per year as part of the landfill's monitoring plan. In addition, the wastewater treatment facility tests the landfill leachate twice per year. It was noted that there was an area (approximately 80 ft. by 100 ft.) in the southeastern corner of Cell #3 where there was standing fluid in the cell. The area is just south of where the leachate collection piping from Cell #3 ties into main north-south leachate collection line. It is in the lowest area of Cell #3. Tollefson said this area was the only area of Cell #3 that hasn't had any MSW placed. Based on this information and the design of Cell #3, the standing fluid observed is a mixture of leachate collected from the upslope area of Cell #3 and storm water runoff from the soil covered areas of Cell #3 and the south facing slope of Cell #2. He said that the leachate pumping system has been pumping leachate out of the cells at a rate of 105-110 gpm. I encouraged Tollefson to take additional measures to get the standing leachate pumped out of the cell as soon as possible.

13. The operator has hired Leggette, Brashears and Graham (LBG), Inc., to perform ground water monitoring and methane gas testing at the landfill. A review of the quarterly methane gas testing results for 2015 showed that methane gas was not detected anywhere at the landfill.

Closure and Postclosure (ARSD 74:27:15)

The operator reviews and updates the closure and postclosure plans every year. A review of the closure and postclosure plans showed that the plans were adequate and in compliance with state rules.

Financial Assurance (ARSD 74:27:16)

There is a written estimate for closure and postclosure costs in the file. The operator updates the closure and postclosure costs every year. The estimated total cost calculated for closure and postclosure is \$1,791,335.10. The accrued liability for the landfill through 2015 was calculated as \$381,144.10. As of April 30, 2016, the operator had set aside \$357,375.13 for closure and postclosure costs. Within 30 days of receipt of this inspection report, the operator will need to place additional funds in the financial assurance account to meet the accrued liability through 2015 and provide that documentation to this office. The operator will need to ensure that adequate funds are set aside at the end of 2016 to cover the accrued liability accumulated this year. The financial assurance mechanism for the closure and postclosure accounts is adequate and in compliance with the rules.

Transportation (ARSD 74:27:17)

There is a sign at the entrance to the landfill referencing a city ordinance (City Ordinance #1981, Section 30-23) that requires all incoming loads to the landfill must be secured to prevent littering. The transporter of an unsecured load is fined \$10.

Ground Water Monitoring (ARSD 74:27:19)

The operator has hired LBG, Inc., to perform ground water monitoring for the landfill. LBG submitted the required annual report of statistical analysis for the 2015 ground water monitoring data for the landfill on March 24, 2016. This office has not yet reviewed the 2015 annual report.

REQUIREMENT

1. Within 30 days of receipt of this inspection report, the operator will need to place additional funds in the financial assurance account to meet the accrued liability through 2015 and provide that documentation to this office.

Reminders

1. The operator will need to ensure that adequate financial assurance funds are set aside at the end of 2016 to cover the accrued liability accumulated this year.
2. The operator needs to take additional measures to get the standing leachate pumped out of Cell #3 as soon as possible.

FACILITY RATING

Operations at the Mitchell Municipal Solid Waste Landfill are deemed: **Acceptable**

Signature of Inspector: *Steven Kopp* Date: June 9, 2016

Inspection photos from the Mitchell Landfill – May 18, 2016



This photo shows the main gate leading to the landfill and some of the informational signs.



Photo showing the white goods and salvageable metal storage area located north of the scale house. H&R Salvage comes periodically to the site to pick up the white goods and metal for recycling.



Photo of the waste tire stockpile area located west of the scale house. The operator has New Deal Tire, LLC come periodically to pick up the waste tires.



Photo showing some of the windrows of yard waste compost within the composting area. The dark pile of compost on the right is finished compost that's been screened and available to the public.



This panoramic photo shows the landfill's storm water retention pond located in the southwestern portion of the site. The operator can discharge clean storm water to the constructed wetlands that are located south of the pond.



Panoramic photo of the constructed wetlands located south of the storm water pond.



This photo shows the landfill's tree and tree branch pile located south of the lined disposal area. The operator has a separate pile for untreated wood. The landfill has Mueller Pallet come periodically to grind the clean wood waste for recycling.



This photo shows the landfill staff spreading and compacting waste within the lined disposal area. The portable litter fences were placed downwind of the working face to help contain litter.



This photo shows the SE corner of Cell #3 where there was standing leachate on the liner. The operator was encouraged to get the leachate pumped out as soon as possible.



Photo showing the leachate manhole and control system located north of the lined disposal area.