



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
denr.sd.gov

November 23 2010

Darl Allen, Landfill Manager
Mitchell Landfill
612 North Main Street
Mitchell, SD 57301

Re: Inspection of the Mitchell Municipal Solid Waste Landfill

Dear Mr. Allen:

On November 4, 2010, I conducted an inspection of the Mitchell Municipal Solid Waste Landfill (permit number 06-31) with your assistance. 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 in compliance with South Dakota solid waste laws and rules and the permit conditions. I would like to commend you and your staff for their diligent efforts in the operation of the Mitchell landfill.

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,

Steven Kropp, P.E.
Waste Management Program

Enclosure

cc w/enc: Ron Olson, Street and Sanitation Superintendent, City of Mitchell

**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: November 4, 2010
Address: 612 North Main Street, Mitchell, SD 57301 County: Davison
Contact's Name, Title & Telephone #: Darl Allen, Landfill Manager, (605) 995-8448
Ron Olson, Street & Sanitation Supt., (605) 995-8465
Date of Last Site Inspection: May 27, 2010 Permit #: 06-31 Type of Facility: IIA
Tonnage received in 2009: 24,314.75 tons for disposal
Tonnage received Jan. - Oct. 2010: 22,618.28 tons for disposal
Tipping Fee: \$39/ton MSW & Rubble; \$20/ton for trees

Narrative

On November 4, 2010, I met with Darl Allen, Landfill Manager and Ron Olson, Street & Sanitation Superintendent at the Mitchell landfill. The Mitchell landfill is located two miles south and one and one-half miles east of Mitchell. We began the inspection by discussing solid waste operations and reviewing records and documentation required by the operator's solid waste permit. We then traveled around the landfill where we observed and discussed solid waste handling and disposal practices related to the various waste storage and disposal areas. We returned to the landfill office where we further discussed solid waste issues as well as next year's permit renewal application for the landfill. 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) to the landfill is a blacktop paved road that leads from the highway to the landfill. The city of Mitchell maintains this road. The on-site roads at the landfill are well maintained. Mr. Allen stated that there are no problems with access to the municipal solid waste (MSW) disposal area during inclement weather conditions. The landfill has a designated area for the unloading of MSW during inclement weather conditions in the MSW disposal area.
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 and sanitation department, days and hours of operation, emergency information, the landfill's fees, and the requirement that all incoming loads to the landfill must be secured. There are signs posted around the landfill that shows where the various waste disposal and waste storage areas are located.

3. Access to the landfill is controlled by the use of fencing and a lockable gate at the main entrance to the landfill. In addition, the city of Mitchell's wastewater treatment facility is located adjacent to the north side of the landfill which provides additional access control.
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 the natural topography of the landfill. Surface water is stored in a storm water pond located in the southwest corner of the site. The storm water pond has been designed to contain runoff from a 25-year, 24-hour storm event. The pond has a culvert with a vertical slide gate so that the operator can manually drain the storm water pond into constructed wetlands located south of the storm water pond. The operator has a storm water discharge permit for the storm water pond through the Surface Water Quality Program (SDR00B408). Mr. Allen stated that the landfill discharged water from the storm water pond into the wetlands on October 14, 2010.

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 a scale that is located on the south side of the scale house. The operator has the scale certified by the South Dakota Department of Public Safety – Weights and Measures Program. The Weights and Measures Program last certified the scale on November 2, 2010.
2. The operator maintains a working face and unloading area that's 60 feet wide by 100 feet long. The operator spreads the waste in lifts that are one to two feet thick. The compactor operator makes an average of three to five passes over the waste to ensure the waste is sufficiently compacted.
3. The operator uses a spray-on alternative daily cover material to cover the wastes at the end of the working day. The operator is also approved to use petroleum contaminated soil (PCS) as an alternative daily cover material. The operator uses soil once per week as cover to meet a permit condition that requires soil to be used once per week as cover. No vector issues were noted at the time of the inspection.
4. The solid waste permit for the landfill requires the operator to perform daily litter pickup. The landfill staff and the Mitchell garbage collection personnel perform the daily litter pickup at the landfill. In the event of excessive litter at the landfill due to high wind conditions, employees from the Mitchell Street and Sanitation Department assist to help pick up litter. The landfill uses approximately 30 portable litter fences at the working face and fixed litter fences around the lined disposal area and the landfill to help control litter. At the time of the inspection, there were a few pieces of litter was noted outside of the lined MSW disposal area but no litter was noted outside of the permitted boundary of the landfill.
5. In the past the operator used to burn trees, tree branches, and untreated wood as needed. The operator stockpiles this material east of the lined MSW disposal area. The operator burned only when the weather conditions are favorable and notifies the

Mitchell Fire Department, the sheriff's office, Mitchell Dispatch and the DENR before burning at the landfill. Since 2007, the landfill has an agreement with Mueller Pallets of Sioux Falls to have them come out to the landfill and take the wood waste material for recycling/reuse. So the landfill has not open burned any wood waste since then. Mueller Pallet has been at the landfill three times this year to grind the wood waste material that the landfill has collected.

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. The landfill receives very few pesticide containers anymore. The landfill accepts PCS for disposal. The operator's permit has a variance in it that allows the landfill to use PCS for daily cover or direct disposal in the landfill. The landfill also accepts asbestos for disposal. The asbestos is buried with the MSW in the lined disposal area and its location and elevation is mapped by the city's engineering department for the landfill's records. The landfill last accepted a load of regulated asbestos wastes on August 4, 2010.
7. The landfill accepts materials that could go to a restricted use facility for disposal. The landfill buries the materials with the MSW. The landfill does accept lead-acid batteries from the public for temporary storage and future recycling. The lead-acid batteries are picked up for recycling by German Auto of 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. The operator has Randt Oil Company of Litchfield, MN pick up the waste oil for recycling.
8. The landfill accepts appliances that contain refrigerants for temporary storage and recycling. The landfill staff removes the refrigerants from the appliances and temporarily stores the refrigerants on-site. The operator periodically takes the refrigerants to Johnstone Supply, Sioux Falls, SD, for recycling. The landfill staff hauls the appliances, white goods, and other salvageable metal to Dakota Salvage in Mitchell for recycling. The operator also accepts waste tires for temporary storage. The operator periodically hauls the waste tires to New Deal Tire, Groton, SD, for processing. The landfill last hauled waste tires to New Deal Tire on June 11, 2010. The operator does accept yard waste from the public for composting. The composting area is located west of the scale house which has been constructed with a recycled asphalt/concrete base and has been designed to control surface water runoff and run-on. 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 uses a misting system on the edge of storage pond to help reduce the amount of compost leachate being stored in the pond. The misting system is used from late spring until the early fall.
9. The operator conducts random inspections of incoming waste loads to ensure no unauthorized wastes are being disposed of at the landfill. The waste screenings are conducted at the scale house or at the face of the MSW disposal area. Landfill personnel are 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. Mr.

Allen and Mr. Olson are Managers of Landfill Operations certified. 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 when additional training opportunities exist. All newly hired employees are trained on landfill operations.

10. The operator maintains computerized tonnage reports. Dependable Sanitation, Aberdeen, SD, offers recycling services to the city of Mitchell. 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 2006 permit renewal application. As a reminder, the operator will need to update the Source Reduction and Recycling plan for the landfill as part of next year's permit renewal application.
11. The operator's engineering department performs the 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 area is collected in a subsurface collection system and routed to a manhole/lift station located north of the MSW disposal area. The leachate is piped to the Mitchell wastewater treatment facility which is located adjacent to the landfill on the north side of the permitted area. The leachate is sampled twice per year as part of the landfill's monitoring plan. In addition, the city's wastewater treatment plant personnel sample the leachate twice per year.
13. The operator has hired LBG, Inc., to perform ground water monitoring and methane gas testing at the landfill. A review of the quarterly methane gas testing results for 2009 showed that methane gas was not detected anywhere at the landfill.

Closure and Postclosure (ARSD 74:27:15)

The operator submitted the closure and postclosure plans when the solid waste permit application was submitted last 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 estimated total cost calculated for closure and postclosure in December 2006 was calculated as \$1,180,850. The operator has set aside \$138,050 to date to cover these costs. The financial assurance mechanism for the closure and postclosure accounts is adequate and in compliance with the rules.

Inspection photos from the Mitchell MSWLF – Nov. 4, 2010



Photo showing some of the signage posted at the entrance to the Mitchell landfill.



Photo showing the roll-off container used to temporarily store white goods and salvageable metal. The roll-off container is located on the north side of the landfill's scale house.



Photo of the waste tire storage area located west of the scale house. The landfill staff periodically hauls waste tires to New Deal Tire for processing.



Photo of the yard waste composting area located west of the scale house. Runoff from the composting area is collected in a pond on the west side of the composting area.



Photo showing the compost runoff pond from the west side looking east towards the yard waste composting area. The landfill staff has set up a misting system to help evaporate the water in the runoff pond.



Photo of the storm water pond located in the SW portion of the site. The operator can discharge water from this pond via the slide gate in the foreground to constructed wetlands located south of the pond.



Photo of the clean wood waste pile at the landfill. The landfill has Mueller Pallet come periodically to grind up the wood waste.



Photo of the MSW unloading area and working at the landfill. The landfill staff was spreading and compacting MSW in the NE corner of Cell #2 at the time of the inspection.