



**COPY**  
DEPARTMENT of ENVIRONMENT  
and NATURAL RESOURCES

JOE FOSS BUILDING  
523 EAST CAPITOL  
PIERRE, SOUTH DAKOTA 57501-3182  
[www.state.sd.us/denr](http://www.state.sd.us/denr)

July 30, 2007

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 July 3, 2007, I conducted an inspection of the Mitchell Municipal Solid Waste Landfill with the assistance of Ron Olson and you. 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.  
Natural Resources Engineering Specialist  
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: July 3, 2007  
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 Site Inspection: Oct. 17, 2006 Permit #: 04-17 Type of Facility: IIA  
Tonnage received in 2006: 23,576 tons of MSW and 166 tons of rubble  
Tonnage received Jan.-June 2007: 12,413 tons of MSW and 11 tons of rubble  
Tipping Fee: \$39/ton MSW & Rubble; \$20/ton for trees

**Narrative**

On July 3, 2007, I met with Darl Allen, Landfill Manager and Ron Olson, Street and Sanitation Superintendent, at the Mitchell landfill. The Mitchell landfill is located two miles south and one and one-half miles east of Mitchell. Mr. Allen and Mr. Olson accompanied me during the inspection.

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 as well as the storm water basin and constructed wetlands, and the leachate collection system. We returned to the landfill office where we discussed solid waste issues as well as the plans for formally closing and capping the inactive Mitchell 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 mile west of the landfill. The primary access road (257<sup>th</sup> Street) is a blacktop paved road that leads from the highway to the landfill. The city 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 west end of 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 showing where the various waste disposal and storage areas are located. Signage at the landfill appears to be adequate.

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 north of the landfill which provides additional access control. The operator uses portable litter fences at the face of the MSW unloading area, around the MSW disposal cell 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 active fill 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 the constructed wetlands located south of the storm water pond. The operator does have a storm water discharge permit for the storm water pond through the Surface Water Quality Program (SDR00B408).

### **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 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 South Dakota Department of Revenue and Regulation last certified the scale in October 2006.
2. The operator had a working face and unloading area that was 30 feet wide by 100 feet long at the time of the inspection. The operator spreads the waste in lifts that are no more than one foot in thickness. 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 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 at least 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, some litter was noted in the portable litter fences and some litter in the litter fence that surrounds the

lined MSW disposal area. No litter was noted outside of the lined MSW disposal area.

5. Normally the operator burns trees, tree branches, and untreated wood as needed. The operator stockpiles this material east of the lined disposal area. The operator keeps a log of the date and time of the open burning. The operator burns only when the weather conditions are favorable. The operator notifies the Mitchell Fire Department, the sheriff's office, Mitchell Dispatch and the DENR before burning at the landfill. Recently the landfill has signed 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 for a while.
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 operator currently accepts petroleum-contaminated soil (PCS) for treatment and 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 and its location and elevation is mapped. The landfill has accepted only two loads of asbestos for disposal so far this year.
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 employees remove the refrigerants from the appliances and temporarily store 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 operator does accept yard waste from the public for composting. Mr. Olson stated that at the current time, the landfill is not making the finished compost available to the public. It's being stored on-site and will be used in the construction of the final cap over the inactive Mitchell landfill. 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 has set up a misting system on the edge of storage pond to help reduce the amount of compost leachate being stored in the pond.

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 Manager 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. A copy of the 2006 and the 2007 year-to-date 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. 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.
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 plant which is located adjacent to the landfill on the north side of the permitted area. Since the landfill opened in September 2005, the landfill has pumped 7.32 million gallons of leachate to the treatment plant for disposal. Mr. Olson stated that Leggette, Brashears and Graham (LBG), Inc samples the leachate 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 2006 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 accrued liability for the landfill through the end of 2006 was calculated at \$34,803. As of December 31, 2006, the operator had deposited \$35,275 for closure and postclosure costs. The operator will be depositing \$20,225 in the closure/postclosure account by the end of the 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 stating that all incoming loads to the landfill must be secured to prevent littering. Mr. Allen stated that first time offenders are warned the first time if their load is not secured. The second time the transporter of an unsecured load is fined \$10.

### Ground Water and Assessment Monitoring (ARSD 74:27:19 & 20)

The operator has hired LBG, Inc., to perform ground water monitoring for the landfill. LBG, Inc. submitted the required annual report of statistical analysis for the 2006 ground water monitoring data for the landfill to this department on April 2, 2007. This department has not yet reviewed the report.

### FACILITY RATING

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

Signature of Inspector:

*Steven Gross*

Date:

*July 30, 2007*

Inspection photos from the Mitchell MSWLF – July 3, 2007



View of the main entrance and sign posted at the entrance to the Mitchell landfill.



Closer-up view of the signage posted at the entrance to the landfill.



View of the yard waste composting area. The compost pad has been constructed with a recycled asphalt/concrete base. Runoff from the compost pad is collected in a pond located on the west end of the composting area. View is looking to the east.



View of the compost runoff pond. The operator has installed a misting system to help reduce the amount of compost leachate in the pond. The storm water holding pond can be seen in the background. View is looking to the west.



View of the storm water holding pond. Storm water runoff from around the landfill is collected in this holding pond. The pond has a vertical slide gate that allows the operator to discharge clean surface water into some of the constructed wetlands at the landfill. View is looking towards the northwest.



View of the constructed wetland just south of the gate valve. This wetland has become well established since the landfill opened. Some of the landfill's perimeter shelter belt can be seen just above the cattails in the constructed wetlands.



Wide view of the lined MSW disposal area from the west side looking to the east. The landfill staff has surrounded the active working and unloading area with portable litter fences to help control litter.



Close-up view of the active working area. The landfill employees keep the working area as small as possible to minimize litter generation.