



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

November 8, 2006

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 October 17, 2006, 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,

A handwritten signature in black ink that reads "Steven Kropp".

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: October 17, 2006
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 Visit: March 8, 2006 Permit #: 04-17 Type of Facility: IIA
Tonnage received in 2005: 7,700 tons of MSW and 145 tons of rubble
Tonnage received Jan.-Sept. 2006: 18,137 tons of MSW and 150 tons of rubble
Tipping Fee: \$39/ton MSW & Rubble; \$20/ton for trees

Narrative

On October 17, 2006, 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 first part of the inspection.

We began the inspection by traveling around the landfill where we spent about an hour observing and discussing 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 manhole/lift station for the leachate collection system. We returned to the landfill office where we further discussed solid waste operations, reviewed records and documentation required by the operator's solid waste permit, as well as the status of the public notice period for the permit renewal of the landfill. We also discussed 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 (257th Street) from the highway to the landfill is a blacktop paved road. The city maintains this road. The on-site roads at the landfill are well maintained and contain adequate gravel. Mr. Allen indicated that there are no problems with access to the municipal solid waste (MSW) disposal area during inclement weather conditions. Mr. Olson stated that the designated area for the unloading of MSW during inclement weather conditions is 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 and lagoons are located north of the landfill which provides additional access control. The operator uses portable litter fences at the face of the MSW unloading 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 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 permitted 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 and one part-time employee. The landfill has an adequate scale that is located on the south side of the scale house. The operator has the scale certified annually by the South Dakota Department of Revenue and Regulation. The South Dakota Department of Revenue and Regulation certified the scale when the landfill opened last year.
2. The operator had a working face and unloading area that was 30 feet wide by 60 feet long at the time of the inspection. The operator spreads the waste in lifts that are no more than two feet in thickness. The compactor operator makes an average of four 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. Mr. Allen performs 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 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,

the some litter noted was in the portable litter fences and even less litter was in the litter fence that surrounds the lined disposal area. No litter was noted outside of the lined disposal area.

5. 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. The operator last conducted an open burning event on September 22, 2006.
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. Mr. Allen stated that the landfill receives very few pesticide containers anymore. The operator currently accepts petroleum-contaminated soil (PCS) for treatment and disposal. The operator requires pretreatment contamination levels of the PCS prior to acceptance. The treatment area is located east of the active fill area and is bermed to control run-on and runoff. Mr. Allen stated that the landfill employees typically turn the PCS periodically to promote remediation. Once the PCS contamination drops below 100 parts per million total petroleum hydrocarbons, the soil is used as daily cover in the MSW fill area. As part of the current permit renewal process, the operator's new draft permit has a variance in it to allow the landfill to use PCS for daily cover or direct disposal in the landfill. The draft permit is currently being public noticed and the 30-day public notice comment period ends October 27. The landfill does accept asbestos for disposal. The asbestos is buried with the MSW and its location and elevation is mapped. The landfill has accepted 32 cubic yards 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. 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 Randt Oil Company, 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. The operator temporarily stores the refrigerant on-site. The operator periodically takes the refrigerants to Johnstone Supply, Sioux Falls, SD, for recycling. The operator hauls the appliances, white goods, and other salvageable metal to Dakota Salvage in Mitchell for recycling. The operator 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. The composting area which is located west of the scale house 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. There were two windrows of yard waste compost on-site at the time of the inspection.

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 is 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 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 2005 and the 2006 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 departments 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 north of the landfill. Since the landfill opened in September 2005, the landfill has pumped 3.3 million gallons of leachate to the treatment plant for disposal.
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 2005 and 2006 year-to-date 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 in 2003. A review of the closure and postclosure plans showed that the plans were adequate and in compliance with state rules. As part of this year's permit renewal application, the operator and their engineering consultant reviewed the closure and postclosure plans and found that the plans were still applicable and appropriate for the landfill.

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 was calculated as \$1,180,850. The accrued liability for the landfill through 2005 was calculated at \$6,101. As of September 30, 2006, the operator had deposited \$15,000 for closure and postclosure costs. The operator will be depositing \$20,275 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. The landfill has issued eight of these fines since the landfill has opened.

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 submitted the required annual report of statistical analysis for the 2005 ground water monitoring data for the landfill on March 20, 2006. A review of the report and the statistical analysis showed no ground water contamination at the site. This department provided a response letter to the operator and LBG on September 13. The letter stated that this department concurs with LBG's recommendation that the current ground water monitoring program for the landfill continue as approved.

FACILITY RATING

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

Signature of Inspector: _____ Date: _____

Inspection photos from the Mitchell MSWLF – Oct. 17, 2006



View of the entrance gate and some of the signage posted at the Mitchell landfill.



View of the signage listing the tipping fees posted at the scale house.



View of the white good and salvageable metal storage area located on the north side of the scale house/landfill storage building. The operator hauls the white goods and salvageable metal to Dakota Salvage in Mitchell for recycling.



View of the waste tire storage area. Once a sufficient number of waste tires have been collected, the operator hauls the waste tires to New Deal Tire in Groton, SD.



View of the storm water retention pond. The storm water pond is located in the SW portion of the site. The pond has a vertical slide gate that allows the operator to discharge clean storm water to two of the constructed on-site wetlands. View is looking to the north.



View of the leachate manhole/lift station and associated controls. The manhole/lift station is located north of the MSW disposal area. Leachate is piped to the lift station where it is then pumped to the operator's waste water treatment plant for disposal.



This is an expanded view of the MSW disposal area. The operator uses 30 portable litter fences to surround the active working area to help contain any windblown wastes. So of the equipment used in the daily operation of the landfill is also visible in the photo.



Close-up view of the active working area at the landfill. The operator was maintaining a working face that was approximately 30 ft. wide by 60 ft. long at the time of the inspection.