

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

Facility Owner: Brown County Date of Inspection: Sept. 7, 2006
Address: P.O. Box 2137, Aberdeen, SD 57402 County: Brown
Contact's Name, Title & Telephone #: Mike Scott, Landfill Manager, (605) 626-4019
Date of Last Site Inspection: April 7, 2006 Permit #: 02-19 Type of Facility: IIA
Tonnage received in 2005: 44,207 tons MSW & 2,896 tons rubble
Tipping Fees: \$35 / ton MSW & \$10 or \$16 per ton rubble

Narrative

On September 7, 2006, I met with Mike Scott, landfill manager for the Brown County landfill at the landfill. Mr. Scott accompanied me during the inspection. We began the inspection by traveling around the landfill where we spent about an hour and a half observing and discussing solid waste handling and disposal practices as well as landfill operations. 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, and other solid waste issues. We spent some time discussing the anticipated closure of the current MSW disposal area, the required site characterization information that will be needed for the west half of the permitted area for MSW disposal prior to development, items that will need to be reviewed and updated as part of the upcoming permit renewal application, and an alternative handling option for petroleum contaminated soil (PCS). Pictures were taken during the on-site inspection and are attached to this report.

Design Standards (ARSD 74:27:12)

1. There is a blacktop road that leads from the entrance of the landfill south to US Highway 12. This is the primary access road leading to the landfill. The on-site roads at the landfill are well maintained and are suitable for all-weather travel by loaded vehicles. The operator has provided roll-off boxes near the scale house that can be used by the public during inclement weather conditions. Landfill employees transport the roll-off boxes to the active fill area where the waste is unloaded. The operator has built a hoop-barn structure for commercial haulers to use during inclement or windy weather conditions. The hoop-barn structure is located west of the MSW fill area. The hoop-barn structure can hold three days worth of MSW.
2. There are signs posted at the entrance to the landfill with the following information: name of the landfill, name and phone number of the manager, days and hours of operation (M-F, 8am-5pm and Sat. 8:30am-5pm), and other required information. Information about the tipping fees charged at the landfill is available at the scale house. There are signs posted around the landfill for the temporary waste storage and waste disposal areas.

Access to the landfill is controlled by the use of fencing and a lockable gate at the main entrance. The main gate is locked when the facility is closed.

3. The operator uses portable litter fences at the face of the active unloading area to help control litter. Also, there are semi-fixed litter fences within the MSW disposal area, as well as fixed litter fences around the lined MSW disposal area and the perimeter of the landfill. Very little litter was noted outside of the active MSW working area, but it was noted within the perimeter of the MSW disposal area. No litter was noted outside of the permitted boundary of the landfill.
4. The operator has an area south of the scale house that is well designed and organized to temporarily store various wastes for future recycling. The operator has temporary storage areas for yard waste, waste tires, white goods, used oil, paint, batteries, propane tanks and antifreeze. The landfill has the required personnel facilities and equipment located in the landfill maintenance building and at the scale house.
5. Surface water is diverted around the active fill area by a series of open earthen ditches and culverts to a storm water pond located south of the active fill area. There is another storm water pond located in the south central portion of the permitted area that also collects storm water runoff. The operator has obtained a storm water discharge permit (SDR00B097) through the Surface Water Quality Program in the event that a discharge is necessary from the storm water pond.

Facility Operation (ARSD 74:27:13)

1. The landfill employs five full-time landfill staff and two part-time scale attendants. The landfill is only open when there are adequate supervisory and operational personnel at the landfill. The landfill has an adequate scale that is located south of the scale house. The landfill has the scale certified annually by the South Dakota Department of Revenue and Regulation. The South Dakota Department of Revenue and Regulation last certified the scale on October 19, 2005.
2. The operator typically maintains a MSW working area that is approximately 100 feet long by 75 feet wide. The operator spreads the waste with a D8 bulldozer in lifts that are no more than two feet in thickness. The MSW compactor operator typically makes a minimum of three to five passes over the MSW to ensure the waste is sufficiently compacted.
3. The operator uses a spray-on alternative daily cover material or a wood chip and soil mixture to cover the MSW at the end of the working day. The operator uses soil as cover at least weekly to meet a permit requirement that requires soil to be used once per week as cover. The operator uses soil more frequently as daily cover during inclement weather conditions.
4. The operator uses propane powered gas cannons, screamers, and bangers as the primary means of discouraging seagulls. Mr. Scott stated that the landfill also uses an electronic distress call system near the working face to discourage the presence of starlings and seagulls away from the working face. The electronic distress call system was in use at the time of the inspection. There were quite a few seagulls present at the

landfill at the time of the inspection. However most of the seagulls were located on the interim covered MSW and not near the working face.

5. The operator's solid waste permit requires that the operator perform at least daily litter pickup at the landfill. Mr. Scott stated the landfill employees perform daily litter pickup at the landfill. Mr. Scott said that the landfill also uses inmates from the Brown County jail to help pick up litter at the landfill on an as needed, as available basis. The landfill employees also use a Mad Vac to help pick up litter at the landfill. The landfill uses around 30 portable litter fences at and around the working face, semi-fixed litter fences within the MSW disposal area and fixed litter fences around the permitted area of the landfill and the lined MSW disposal area to help control litter at the landfill.
6. The operator accepts a number of special wastes for disposal or temporary storage and future recycling. The operator does accept petroleum-contaminated soil PCS for treatment and disposal. The operator requires pretreatment contamination levels of the PCS prior to acceptance. The operator has a treatment area located southwest of the lined MSW disposal area. The treatment area is bermed to control run-on and runoff. The operator has the runoff from the treatment area tested to determine the effectiveness of the treatment area at protecting surface water. The test results are included in the landfill's annual monitoring report. The operator turns the PCS at least weekly during the months of April through October to promote remediation. Once the PCS contamination drops below 100 parts per million total petroleum hydrocarbons, the soil is disposed of in the MSW disposal area. I discussed with Mr. Scott a new PCS handling and disposal option that this office is now offering to landfills that have a liner and leachate collection system. This office is now allowing those previously mentioned landfills the option of using PCS as daily cover or directly disposing of PCS into the lined MSW disposal area regardless of contamination level provided it's not a hazardous waste. I told Mr. Scott that this alternative PCS handling option would require a variance to the landfill's solid waste permit and that this office could amend the permit now or wait until the landfill's permit is up for renewal next year. Mr. Scott indicated that he would be interested in amending his permit to allow for this alternative handling option in the near future.
7. The landfill does accept asbestos for disposal. The operator disposes of the asbestos in a separate bermed area. The operator has accepted 177 bags of asbestos for disposal so far in 2006. The operator does accept dead animals for disposal at the landfill. The dead animals mainly come from a local fur and trapping company. The dead animals are disposed of in the MSW disposal area. The operator has disposed of approximately 83 tons of dead animals so far this year.
8. The landfill accepts materials that could go to a restricted use facility for disposal. The landfill operates a separate disposal area that is located west of the scale house. The only types of materials allowed to be disposed of in this area are small loads of concrete, brick, asphaltic concrete, painted and stained wood, attached insulation and similar wastes. The operator periodically uses the compactor to compact these wastes. Larger loads of these materials and other materials such as mattresses, carpet, or furniture are disposed of in the lined MSW disposal area. The operator tracks the loads of restricted use type materials mixed with MSW. These loads are disposed of in the lined MSW disposal area. The landfill accepts lead-acid batteries from the public for temporary storage and future recycling. The batteries are stored in a plastic containment basin. The containment basin offers protection in the event a lead-acid battery leaks. The

operator has Mardian's in Aberdeen come to the landfill to pick up the lead-acid batteries for recycling. So far this year, Mardian's has accepted 600 lead-acid batteries from the landfill. The landfill also accepts waste oil from the public. The waste oil is stored in three 396-gallon tanks and the tanks are clearly labeled as waste oil. The Brown County Highway Department periodically comes to the landfill to pump out the waste oil. The Brown County Highway Department burns the waste oil at the county maintenance shop as a source of fuel.

9. The landfill accepts appliances and white goods that contain refrigerants for temporary storage and recycling. The operator has Brick's TV & Appliance Repair come to the landfill to remove the refrigerants. The operator transports the white goods and other salvageable metal to Mardian's for recycling. The operator hauled 800 tons of salvageable metal from the landfill in 2005 and 169 tons so far in 2006 for recycling.
10. The operator accepts yard waste from the public for composting. The composting area has berms built to control storm water run-on and runoff. The operator places the yard waste in windrows and adds moisture to yard waste to promote composting. The finished compost is registered with the SD Department of Agriculture as a soil amendment and is given away free to the public. The landfill also accepts waste tires from the public for temporary storage and future recycling. The designated waste tire storage area is located near the scale house. Mr. Scott estimates that the landfill has accepted and removed 169 tons of waste tires so far this year. Approximately 1,500 – 2,000 waste tires are currently on-site. The operator has an agreement with Greenman Technologies of Savage, MN to haul the waste tires to their plant where the waste tires will be recycled.
11. The operator conducts random inspections of incoming waste loads to ensure no unauthorized wastes are being disposed of at the landfill. Landfill personnel are trained to recognize hazardous or suspicious wastes. The scale operator makes random inspections at the scale house. The operator has a mobile platform set up at the scale house so that the scale operator can make an inspection on large loads of wastes that are brought to the landfill. The scale operator makes a notation on the scale ticket that an inspection had been performed. The operator maintains a logbook on all of the waste inspections that are performed.
12. The operator conducts safety and landfill operations training meetings for all landfill employees. Mr. Scott stated that he sends the landfill employees to various SD Solid Waste Management Association meetings where additional training opportunities exist.
13. The operator has hired Helms and Associates of Aberdeen, SD, to perform 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, Helms and Associates, and the Brown County courthouse.
14. Leachate from the lined MSW disposal area is collected in a subsurface collection system and routed to a 10,000-gallon tank. The operator periodically pumps out the leachate and recirculates the leachate over the lined MSW disposal area. In the past, the operator transported the leachate to the Aberdeen wastewater treatment plant for disposal. The operator has the leachate sampled in accordance with the

requirements for the city of Aberdeen's wastewater discharge permit as well as the ground water monitoring parameters for the landfill.

15. The operator has hired Minnesota Valley Testing Laboratory (MVTL), New Ulm, MN, to perform ground water monitoring and methane gas testing at the landfill. A review of the methane gas testing results for 2005 showed that methane gas was only detected in the leachate sump pump house.

Closure and Postclosure (ARSD 74:27:15)

The operator updated the closure and postclosure plans when the operator submitted its solid waste permit renewal application in 2001. A review of the closure and postclosure plans at that time showed that the plans were adequate and in compliance with state rules. Since the permit renewal, the operator requested a modification to the closure plan to increase the closure area to 15 acres. This modification was approved and the closure costs have been increased as well as adjusted for inflation. As a reminder, as part of the upcoming permit renewal application the operator will need to review and update where necessary the closure and postclosure plans for the landfill.

Financial Assurance (ARSD 74:27:16)

There is a written estimate for closure and postclosure costs in the file. The estimated amount is \$1,470,000. As of December 31, 2005, the operator had deposited \$727,452 in certificates of deposit for closure and postclosure costs. The operator also has \$187,513 in restricted assets to fund future closure and postclosure costs. While not required by this department, the operator has also voluntarily restricted \$240,000 for potential remedial action. The financial assurance mechanism for the closure and postclosure accounts is adequate and in compliance with the rules.

Transportation (ARSD 74:27:17)

Brown County has an ordinance that requires all loads to be covered and secured. The transporter of an unsecured load is given a warning ticket for the first offense. For a second offense, the violator is turned over to the state's attorney for prosecution. The operator has established the *Covered Load Appreciation Program* at the landfill. The program was set up to educate the users of the landfill that the rules and local ordinances require that all incoming loads must be secured. The operator randomly rewards landfill users who have covered and/or secured loads with various thank you gifts.

Ground Water Monitoring (ARSD 74:27:19)

The operator has hired MVTL to perform ground water monitoring at the landfill. Earth Tech Inc., of Minneapolis, MN, prepared the required 2005 Annual Ground Water Monitoring Report and submitted the report to this department on March 30, 2006. The operator and Earth Tech were sent a letter from this department dated November July 12. In the letter, this department stated

that it had reviewed the report and stated that there were seven problematic issues found in the report that needed to be addressed. As a result, this office requested that Earth Tech provide a revised copy of the report that addressed the seven issues and to submit a revised report to this office by August 31. At the time of the inspection, Earth Tech had not yet provided the revised report to this office.

Reminders

1. As a reminder, as part of the upcoming permit renewal application the operator will need to review and update where necessary the closure and postclosure plans and costs for the landfill.
2. If the operator anticipates during the term of the next permit renewal that the west half of the permitted area will be developed for MSW disposal, then the operator needs to provide adequate site characterization information to this office in accordance with ARSD 74:27:12:03 prior to landfill development.

FACILITY RATING

Operations at the Brown County municipal solid waste landfill are deemed: **Acceptable**

Signature of Inspector: _____ Date: _____