



DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: 112010-009 Project Number: 2010-06-049

Parent Company: Waste Corporation of Missouri, Inc.

Parent Company Address: 2120 West Bennett, Springfield, MO 65807

Installation Name: Central Missouri Landfill

Installation Number: 159-0055

Installation Address: 24461 Oak Grove Lane, Sedalia, MO 65302

Location Information: Pettis County, S36, T46N, R22W

Application for Authority to Construct was made for:
Central Missouri Landfill is expanding the existing landfill by approximately 5.5 acres and is referred to as the North Horizontal Expansion. This would increase the solid waste disposal capacity by approximately 1,387,500 cubic yards or 832,500 tons. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.



Standard Conditions (on reverse) are applicable to this permit.



Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

NOV 30 2010

EFFECTIVE DATE


DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Departments' Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available within 30 days of actual startup. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW

Project Number: 2010-06-049
Installation ID Number: 159-0055
Permit Number:

Central Missouri Landfill
24461 Oak Grove Lane
Sedalia, MO 65302

Complete: June 21, 2010

Parent Company:
Waste Corporation of Missouri, Inc.
2120 West Bennett
Springfield, MO 65807

Pettis County, S36, T46N, R22W

REVIEW SUMMARY

- Central Missouri Landfill has applied for authority to expand the existing landfill by approximately 5.5 acres this expansion is referred to as the North Horizontal Expansion. This would increase the solid waste disposal capacity by approximately 1,387,500 cubic yards or 832,500 tons.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment. HAPs emissions will vary yearly depending on the condition in the landfill and the amount of wastes and type of wastes the landfill accepts.
- 40 CFR 60 Subpart WWW, "Standards of Performance for Municipal Solid Waste Landfills" of the New Source Performance Standards (NSPS) applies to the landfill.
- Subpart AAAA, "National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills", of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) apply to this installation. None of the currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed landfill.
- No air pollution control equipment is being used in association with the new expansion.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, Construction Permits Required. Potential emissions of all pollutants are below de minimis levels.
- This installation is located in Pettis County, an attainment area for all criteria pollutants.

- This installation is not on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation's major source level is 250 tons per year and fugitive emissions are not counted toward major source applicability.
- Ambient air quality modeling was not performed since potential emissions of the application are below de minimis levels.
- Emissions testing are required as outlined in NSPS, Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills.
- A revision to the Part 70 Operating Permit application is required for this installation within 1 year of equipment startup.
- Approval of this permit is recommended without special conditions.

INSTALLATION DESCRIPTION

The Central Missouri Landfill (CML) is a municipal solid waste landfill owned and operated by Waste Corporation of Missouri, Inc. The landfill is located in Pettis County, Missouri, near Sedalia about ¼ mile north of US Highway 50, accessed by Oak Grove lane. CML has been in operation since 1972 and consists of the following disposal areas: Landfill 1 is a 3 acres Pre Subtitle D area closed in 1982; Landfill 2 is a 2-acre Pre Subtitle D area closed in 1988; Landfill 3 is a 10 acre Pre Subtitle D area closed in 1998; Areas 1-4 are 16.2 acres open, intermittently active Subtitle D area; and Horizontal Expansion is an active 45-acre Subtitle D area.

Landfill 1 through 3, located at the south west corner of the facility, and Areas 1-4, located at the northwest corner of the facility have operated under two solid waste disposal area operating permits number 115906 and 115908. After the approval of the horizontal expansion in 2004, the total design capacity of the CML was 5.80 million Mg. This is over the 2.5 million Mg and made the facility subject to a Part 70 Operating permit and was issued OP2006-084 on November 22, 2006 for land fills 1 through 3, areas 1-4, and the Horizontal Expansion. It is a Minor Source for Construction permits with a Section 6 permit being issued for the Horizontal Expansion.

The following permits have been issued to Central Missouri Landfill from the Air Pollution Control Program.

Table 1: Permit History

| Permit Number | Description |
|---------------|--|
| OP2006-084 | Part 70 Operating Permit |
| 102004-007 | Section 6 Permit Issued for Landfill expansion |
| OP | Basic Operating Permit Completed 3/10/2004 |
| OP | Basic Operating Permit Completed 9/25/2001 |

PROJECT DESCRIPTION

The Central Missouri Landfill (CML) is requesting an increase in the Subtitle D waste disposal area from 62.5 acres to 68.0 acres. As proposed, the expansion will increase the capacity of the land fill by approximately 1,387,500 yards. Based on the waste density of 1,200 pounds per cubic yard, the expansion would provide an estimated 832,500 tons (755,321 Mg) of additional waste disposal capacity. This quantity includes daily intermediate cover and is a conservative estimate. The additional capacity provided by the North Horizontal Expansion would allow for an estimated 4.9 years of additional life based on a waste acceptance rate of 600 tons per day and 5.5 days of disposal per week. HAPs emissions will vary yearly depending on the condition in the landfill and the amount of wastes and type of wastes the landfill accepts. As of the date of the application, the installation has not reported emissions of non methane organic compounds (NMOCs) above 50 Mg per year. Therefore a gas collection and control system has not been required.

EMISSIONS/CONTROLS EVALUATION

The Potential to Emit (PTE) for the North Horizontal Expansion were calculated for Volatile Organic Compounds (VOCs), Hazardous Air Pollutants (HAPs) and NMOCs. The PTE was generated from the Environmental Protection Agency Landfill Gas Emission Model (LandGEM) Version 3.02. Landfill gas generation estimates were based on historical waste acceptance through 2009 and an average daily waste acceptance of 600 tons per day from 2009 until the landfill attains its proposed capacity. As allowed in NSPS, Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills because of the expansion and the total design capacity being larger than 2.5 million Mg, the LandGEM default values were used. The current site specific values were not used and were not supplied with the application. The value used in the model for the methane generation potential (L_0) was 170 cubic meters per megagram and 4,0000 parts per million by volume for the NMOC concentration and 0.05 for the methane generation rate constant (k). These values are all the regulatory default values and are not site specific values as allowed by Subpart WWW.

Table 2: Emissions Summary (tons per year)

| Pollutant | Regulatory <i>De Minimis</i> Levels | Existing Potential Emissions | Existing Actual Emissions (2009 EIQ) | Potential Emissions of the Application | New Installation Conditioned Potential |
|------------------|-------------------------------------|------------------------------|--------------------------------------|--|--|
| PM ₁₀ | 15.0 | 17.87* | 10.5 | N/A | N/A |
| SO _x | 40.0 | N/A | N/A | N/A | N/A |
| NO _x | 40.0 | N/A | N/A | N/A | N/A |
| VOC | 40.0 | 65.21** | 7.87 | 3.56 | N/A |
| CO | 100.0 | 6.85* | 2.00 | N/A | N/A |
| HAPs | 10.0/25.0 | 54.43** | 0.99 | 2.97 | N/A |
| NMOC | 50.0 | 694.11** | N/D | 37.91 | N/A |

N/A = Not Applicable; N/D = Not Determined

* From permit Number 102004-007 with project number 2004-06-075.

** From LandGEM calculations as submitted in application.

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of Pollutant are below de minimis levels.

APPLICABLE REQUIREMENTS

Central Missouri Landfill shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required June 1 for the previous year's emissions.
- *Operating Permits*, 10 CSR 10-6.065
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-3.090

SPECIFIC REQUIREMENTS

- *New Source Performance Regulations*, 10 CSR 10-6.070 – *New Source Performance Standards (NSPS) for Municipal Solid Waste Landfills*, 40 CFR Part 60, Subpart WWW
- *Emission Standards for Hazardous Air Pollutants*, 10 CSR 10-6.080 – *National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Municipal Solid Waste Landfills*, 40 CFR Part 61, Subpart AAAA

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted without special conditions.

Timothy Paul Hines
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated 06/04/2010, received 06/16/2010, designating Waste Corporation of Missouri, Inc. as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Kansas City Regional Office Site Survey, June 23, 2010.