

Facility Name: **Macon Walker Road Municipal Solid Waste Landfill**
 City: Macon
 County: Bibb
 AIRS #: 04-13-021-00195

Application #: TV-10423
 Date Application Received: 12/23/97
 Date Application Deemed
 Administratively Complete: 4/4/98
 Date of Draft Permit: 1/23/03
 Permit No: 4953-021-0195-V-01-0

Program	Review Engineers	Review Managers
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Introduction

This narrative is being provided to assist the reader in understanding the content of the attached draft Part 70 operating permit. Complex issues and unusual items are explained herein simpler terms and/or greater detail than is sometimes possible in the actual permit. This permit is being issued pursuant to: (1) Georgia Air Quality Act, O.C.G.A § 12-9-1, et seq. and (2) Georgia Rules for Air Quality Control, Chapter 391-3-1, and (3) Title V of the Clean Air Act Amendments of 1990. Section 391-3-1-.03(10) of the Georgia Rules for Air Quality Control incorporates requirements of Part 70 of Chapter I of Title 40 of the Code of Federal Regulations promulgated pursuant to the Federal Clean Air Act. The primary purpose of this permit is to consolidate and identify existing state and federal air requirements applicable to Macon Walker Road Municipal Solid Waste Landfill and to provide practical methods for determining compliance with these requirements. The following narrative is designed to accompany the draft permit and is presented in the same general order as the permit. It initially describes the facility receiving the permit, the applicable requirements and their significance, and the methods for determining compliance with those applicable requirements. This narrative is intended as an adjunct for the reviewer and to provide information only. It has no legal standing. Any revisions made to the permit in response to comments received during the public participation and EPA review process will be described in an addendum to this narrative.

I. Facility Description**A. Facility Identification**

1. Facility Name: Macon Walker Road Municipal Solid Waste Landfill
2. Parent/Holding Company Name: City of Macon
3. Previous and/or Other Name(s): pka Walker Swamp Road Landfill
4. Facility Location: 327 Lower Poplar Street
Macon, Georgia 31201
Bibb County
5. Attainment or Non-attainment Area Location

The facility location is designated as an attainment area for all criteria pollutants.

6. Class I Area Impacts

This facility is not located within 100 km of a Class I area.

B. Site Determination

There are no issues with regard to site determination. There are no other facilities which could possibly be contiguous or adjacent and under common control. Cherokee Brick and Tile Company operates a brick manufacturing facility adjacent to the landfill, and leases the landfill gas rights from the landfill. While the brick plant uses all the landfill gas from the landfill in their treatment system and brick kilns, the two facilities are not under common control and hence are separate sites under Title V.

C. Existing Permits**Table 1: List of Current Permits as Amended**

Permit Number and/or Purpose of Issuance	Date of Issuance and Date of Amendments (if any)	Comments	
		Yes	No
N/A	N/A	N/A	N/A

Table 2: Comments on Specific Permits

Permit Number	Comments
N/A	N/A

D. Process Description

1. SIC Codes(s): 4953 (Operation of a municipal solid waste landfill)
2. Description of Product(s)

This facility does not have final products. The Macon Walker Road Landfill processes general waste.

3. Overall Facility Process Description

The Macon Walker Road Landfill receives, manages, and disposes of solid waste. The landfill is required, based on Tier 1 NMOC calculations, to operate a landfill Gas Collection and Control System (GCCS) regulated under Georgia Rule (ggg). The landfill currently leases its landfill gas (LFG) rights to the Cherokee Brick and Tile Company located immediately next to the landfill. The landfill gas is treated (compressed, de-watered, and dry filtered) prior to being burned as supplementary fuel in the Cherokee Brick and Tile plant's kilns. The Cherokee Brick and Tile facility operates 24 hours per day, 7 days per week and utilizes 100 percent of the landfill gas extracted from the landfill.

4. Overall Process Flow Diagram (optional)

A landfill process flow diagram was not provided.

E. Regulatory Status

1. PSD/NSR

This facility is a minor source with respect to PSD rules. Although Tier I calculations indicate an NMOC generation rate of over 400 tons per year, the landfill gas collection and control system required by Rule (ggg) effectively reduces NMOC emissions by 80 percent. Actual NMOC generation, as calculated using AP-42 values, is less than 100 tons per year.

Nonattainment NSR does not apply because the facility is located in a county currently deemed "attainment" for all pollutants.

2. Title V Major Source Status by Pollutant

Table 3: Title V Major Source Status

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility's Title V status for the pollutant?		
		Major Source Status	Major Source Requesting SM Status	Non-Major Source Status
PM	y	n	n	y
PM ₁₀	y	n	n	y
SO ₂	n	n/a	n/a	n/a
VOC	y	n	n	y
NO _x	n	n/a	n/a	n/a
CO	n	n/a	n/a	n/a
TRS	n	n/a	n/a	n/a
H ₂ S	y	n	n	y
Individual HAP	y	n	n	y
Total HAPs	y	n	n	y

3. MACT Standards

The Macon Walker Road Landfill is subject to 40 CFR Part 61 Subpart M for Asbestos. The landfill has accepted waste that contained asbestos. This landfill is also Subject to 40 CFR Part 63 Subpart AAAA for Municipal Solid Waste Landfills.

4. Program Applicability

Program Code	Applicable (y/n)
Program Code 6 – PSD	n
Program Code 8 – Part 61 NESHAP	y
Program Code 9 – NSPS	n
Program Code M – Part 63 NESHAP	y
Program Code V – Title V	y

The facility is not subject to 40 CFR Part 60 Subpart WWWW because it was constructed prior to 1991. However, it is subject to Georgia Rule (ggg) which adopts many of the requirements, including entire sections of Subpart WWWW, as per 40 CFR Part 60 Subpart Cc for existing landfills with design capacities exceeding 2.5 million Mg or 2.5 million cubic meters.

Regulatory Analysis

II. Facility Wide Requirements

A. Emission and Operating Caps:

None Applicable.

B. Applicable Rules and Regulations

This facility is subject to Georgia Rule (ggg) – Existing Municipal Solid Waste Landfills. This is because the landfill has a design capacity of 4.7 MMyd³, which exceeds the Rule (ggg) applicability threshold of 3.2 MMyd³, and was constructed prior to 5/30/91. Using Tier 1 calculations, the estimated facility NMOC generation rate for the year 2000 was 417.23 Mg/yr. This is above the Rule (ggg) 50 Mg/yr NMOC threshold requiring either Tier 2 testing or installation of a control system. The landfill did not choose to recalculate the NMOC using Tier 2, so a landfill gas collection and control system (GCCS) is required. The landfill already has a GCCS which was run by neighboring Cherokee Brick and Tile Company. The GCCS must comply with the requirements of Rule (ggg), which incorporates by reference much of 40 CFR Part 60 Subpart WWW. The landfill uses a landfill gas (LFG) treatment system prior to combustion of the LFG in brick kilns to meet the requirements of the regulation. The specific standards of Rule (ggg) are detailed in Section 3 of the Title V permit.

Because the Macon Walker Road Landfill Title V application denotes that the landfill accepts asbestos, the facility is subject to 40 CFR Part 61 Subpart M. As long as the landfill remains active it is required to comply with the provisions of 40 CFR 61.154 – “Standards for Active Waste Disposal Sites” including all reporting and record keeping requirements applicable to facilities which accept asbestos waste. Upon closure, the facility will be required to comply with 40 CFR 61.151-“Standards for Inactive Waste Disposal Sites for Asbestos Mills and Manufacturing and Fabricating Operations,” if asbestos had been accepted.

The facility is subject to 40 CFR Part 63 Subpart AAAA “Municipal Solid Waste Landfills” because the design capacity exceeds the Subpart WWW applicability threshold of 3.2 million cubic yards. This NESHAP requires that the landfill comply with the provisions of Subpart WWW, and develop and implement a written Startup, Shutdown, and Malfunction Plan in accordance with 40 CFR Part 63 Subpart A “General Provisions.”

C. Compliance Status

According to Section 11.10 of the Title V application, the facility believes itself to be in compliance with all applicable regulations as of the signature date of 7/5/00. The Stationary Source Compliance Program has recently issued the landfill a Notice of Violation (NOV) for failure to conduct the monitoring required by Rule (ggg). The NOV indicates that the landfill did not conduct the monthly well-head temperature, pressure, or oxygen/nitrogen monitoring from the period between 4/00 and 8/02. Although the enforcement action has yet to be completely resolved, Macon Walker Road Landfill has currently carrying out all required monitoring.

D. Operational Flexibility

There were no operational flexibility requests in the Title V application.

E. Permit Conditions

2.2.1 – Establishes 40 CFR Part 61 Subpart A – “General Provisions” for NESHAP as applicable. The facility is subject to the General Provisions of Part 61 because it is subject to Part 61 Subpart M.

2.2.2 – Establishes 40 CFR Part 61 Subpart M “Asbestos” as applicable.

2.2.3 – Establishes 40 CFR Part 63 Subpart A – “General Provisions” for NESHAP as applicable. The facility is subject to the General Provisions of Part 63 because it is subject to Part 63 Subpart AAAA.

2.2.4 – Establishes 40 CFR Part 63 Subpart AAAA “Municipal Solid Waste Landfills” as applicable.

2.3.1 – Establishes Georgia Rule 391-3-1-02(2)(ggg) “Existing Municipal Solid Waste Landfills” as applicable.

III. Regulated Equipment Requirements

A. Brief Process Description

The Macon Walker Road Landfill receives, manages, and disposes of solid waste. The landfill is required, based on Tier 1 NMOC calculations, to operate a landfill Gas Collection and Control System (GCCS) regulated under Georgia Rule (ggg). The landfill currently leases its landfill gas (LFG) rights to the Cherokee Brick and Tile Company located immediately next to the landfill. The landfill gas is treated (compressed, de-watered, and dry filtered) prior to being burned as supplementary fuel in the Cherokee Brick and Tile plant's kilns. The Cherokee Brick and Tile facility operates 24 hours per day, 7 days per week and utilizes 100 percent of the landfill gas extracted from the landfill.

The landfill uses the landfill gas treatment system to meet the control requirements of Rule (ggg) and 40 CFR 60.752.

B. Equipment List for the Process

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
01	Landfill	391-3-1-.02(2)(ggg) 391-3-1-.02(2)(n) 40CFR 61 Subpart A 40CFR 61 Subpart M 40 CFR 63 Subpart A 40 CFR 63 Subpart AAAA	3.4.1, 3.4.2, 3.4.3, 4.2.1, 5.2.1 through 5.2.9, 6.1.7, 6.2.1 through 6.2.11	GCCS	Landfill Gas Collection and Control System; gas treatment system

* Generally applicable requirements contained in this permit may also apply to emission units listed above.

C. Equipment & Rule Applicability

Emission and Operating Caps –
No emission or operating caps apply.

Applicable Rules and Regulations -

The landfill is subject to Georgia Rule 391-3-1-.02(2)(ggg) "Existing Municipal Solid Waste Landfills," which incorporates by reference 40 CFR Part 60 Subpart WWW. The landfill is subject to Rule (ggg) and not the NSPS because it was constructed prior to the 1991 NSPS applicability date, and has a design capacity exceeding 2.5 million Mg or 2.5 million cubic meters. Tier 1 calculations revealed NMOC generation exceeding 50 Mg/yr, and the landfill chose not to conduct Tier 2 testing, but immediately comply with the requirements through the use of the Gas Collection and Control System (GCCS).

Rule (ggg) requires the use of an approved GCCS which collects the landfill gas using a series of wells and headers, and routes the gas to a control device. In this case, the landfill gas treatment system qualifies as the control device because it compresses, de-waters, and filters the gas prior to combustion in the neighboring brick kilns. The Division approved Macon Walker Road Landfill's GCCS plan which specified this system in 1998.

The landfill is subject to Georgia Rule (n) "Fugitive Emissions." This rule requires that the facility minimize fugitive dust from the facility. For landfills this includes using water or chemicals for controlling dust on construction operations, grading of roads, and the clearing of land; covering at all times, when in motion, open bodied trucks transporting material likely to give rise to airborne dust; application of suitable dust suppressing material to dirt roads, material, stockpiles, and other similar sources.

D. Compliance Status

The Stationary Source Compliance Program has recently issued the landfill a Notice of Violation (NOV) for failure to conduct the monitoring required by Rule (ggg). The NOV indicates that the landfill did not conduct the monthly well-head temperature, pressure, or oxygen/nitrogen monitoring from the period between 4/00 and 8/02. Although the enforcement action has yet to be completely resolved, Macon Walker Road Landfill is currently carrying out all required monitoring.

E. Operational Flexibility

The landfill has not requested any operational flexibility.

F. Permit Conditions

3.4.1 details the standards for the GCCS under Rule (ggg).

3.4.1a requires that the GCCS collect landfill gas in any area of the landfill where waste has been in place for 5 years if still active, or 2 years if closed or at final grade.

3.4.1b requires that each wellhead of the GCCS be operated at negative pressure, except under certain conditions.

3.4.1c requires that each wellhead of the GCCS be operated at less than 55°C, and at less than 20% Nitrogen or 5% Oxygen.

3.4.1d requires that the GCCS function such that the landfill surface concentrations of methane remain below 500 ppm compared to background levels.

3.4.1e requires that the collected gases are treated via compression, de-watering, and filtering, and not vented directly to the atmosphere after treatment. The proposed changes to Subpart WWW define treatment as filtering, de-watering, and compression of landfill gas.

3.4.1f requires that the treatment system and downstream combustion sources be operated at all times that the GCCS operating.

3.4.2 and 3.4.3 establish the requirements of Georgia Rule (n) "Fugitive Emissions."

IV. Testing Requirements (with Associated Record Keeping and Reporting)**A. General Testing Requirements**

The standard general requirements are included in the permit. Condition 4.1.3 includes test methods that are applicable to the landfill. Because the landfill does not use open flares or an enclosed combustor to comply with Rule (ggg), test methods regarding these devices are not included.

B. Specific Testing Requirements

Condition 4.2.1 details the testing requirements of Rule (ggg) needed to validate any request to remove the GCCS after closure of the landfill.

No control device performance testing is required under Rule (ggg) since the landfill gas treatment system is used for control.

V. Monitoring Requirements (with Associated Record Keeping and Reporting)**A. General Monitoring Requirements**

The standard general requirements are included in the permit. Condition 5.3.1 requires the Permittee to maintain records of all data and information required by Conditions 5.2.1 through 5.2.9. Reports are to be submitted semiannually in accordance with Condition 6.1.4.

B. Specific Monitoring Requirements

Rule (ggg) (as per Subpart WWW) specifies monitoring for the GCCS at the landfill. Items to be monitored include wellhead temperature, pressure, and nitrogen/oxygen content; control device bypass lines (if applicable); and landfill surface concentrations of methane. All the conditions in Section 5.2 are derived directly from the monitoring requirements of Subpart WWW. No monitoring is required by the NSPS for the treatment system as long as it meets the definition of "treatment" and does not vent the treated landfill gas to the atmosphere.

5.2.1 requires a device to continuously monitor and record the landfill gas flow rate to the treatment system. In lieu of this monitor, any bypass line can be sealed under lock and key

5.2.2 requires sampling ports and temperature gauges on all GCCS wellheads.

5.2.3 requires monthly monitoring and recording of each GCCS wellhead gas pressure to ensure that the pressure is negative. Excessive pressure must be reported as an exceedance as per Condition 6.1.7.

5.2.4 details the procedures (as per Subpart WWW) if the GCCS wellhead gas pressure is not negative.

5.2.5 requires monthly monitoring and recording of each GCCS wellhead temperature and nitrogen or oxygen level. Excessive oxygen or nitrogen levels must be reported as an exceedance as per Condition 6.1.7.

5.2.6 details the procedures (as per Subpart WWW) if the GCCS wellhead gas temperature, nitrogen content, or oxygen content exceeds the allowable values.

5.2.7 requires quarterly surface methane concentration monitoring on the landfill, and describes the procedures if any methane concentrations exceed the allowable values. Excessive methane concentrations must be reported as an exceedance as per Condition 6.1.7.

5.2.8 details the methods for conducting the surface methane concentration monitoring.

5.2.9 requires the landfill to develop a program for monthly inspections of the landfill cover integrity.

5.3.2 details the reporting requirements of Subpart WWW if any monitoring reveals exceedances of the allowable under the rule.

VI. Other Record Keeping and Reporting Requirements**A. General Record Keeping and Reporting Requirements**

The standard general requirements are included in the permit. Condition 6.1.7 details reportable exceedances, including exceedances of the allowable wellhead pressure, temperature, nitrogen or oxygen level, and exceedances of the allowable surface methane concentration. Failure to develop, implement and maintain on site the Startup, Shutdown, and Malfunction Plan is also an exceedance as defined in Subpart AAAA.

B. Specific Record Keeping and Reporting Requirements

6.2.1 requires submittal of a landfill closure report as per Subpart WWW.

6.2.2 requires submittal of a GCCS equipment removal report as per Subpart WWW.

6.2.3 requires that landfill design capacity records be kept on site as per Subpart WWW.

6.2.4 requires that records and maps of the GCCS system be kept on site for the lifetime of the system as per Subpart WWW.

6.2.5 requires that records of asbestos and nondegradable waste be kept as per Subpart WWW.

6.2.6 requires records of all monitoring results, as per Subpart WWW.

6.2.7 requires that the landfill satisfy the reporting and record keeping requirements in regard to 40 CFR Part 61 Subpart M "Asbestos."

6.2.8 requires records of asbestos disposal locations be kept as per Subpart M.

6.2.9 requires that the landfill submit the information detailed in 60.757(g) within 180 days after the permit is issued. Section 60.757(g) actually requires this information to be submitted along with the performance test, but no testing is required for landfills using a landfill gas treatment system to comply with Subpart WWW.

6.2.10 requires that the landfill develop and implement a dust suppression plan to assure compliance with Rule (n).

6.2.11 requires that the landfill develop, implement, and maintain on site a Startup, Shutdown, and Malfunction Plan in accordance with 40 CFR Part 63 Subparts A and AAAA.

VII. Specific Requirements

A. Operational Flexibility

Not Applicable.

B. Alternative Requirements

Not Applicable.

C. Insignificant Activities

See Section 4.10 of the Title V permit application

D. Temporary Sources

Not Applicable.

E. Short-Term Activities

Condition 7.6.1 requires records of duration and frequency of the construction or closure of landfill cells.

F. Compliance Schedule/Progress Reports

Not Applicable.

G. Emissions Trading

Not Applicable.

H. Acid Rain Requirements

Not Applicable.

I. Prevention of Accidental Releases

Not Applicable.

J. Stratospheric Ozone Protection Requirements

Macon Walker Road Landfill indicated on Section 3.11 of the Title V application that it does have equipment that uses ozone-depleting compounds, and does service, maintain, or dispose of vehicle air conditioners. The landfill indicated that not single piece of equipment exceeds 50 pounds of refrigerant charge.

K. Pollution Prevention

Not Applicable.

L. Specific Conditions

Not Applicable.

VIII. General Provisions

Generic provisions have been included in this permit to address the requirements in 40 CFR Part 70 that apply to all Title V sources, and the requirements in Chapter 391-3-1 of the Georgia Rules for Air Quality Control that apply to all stationary sources of air pollution.

Addendum to Narrative

The public comment period for this Title V permit expired on April 11, 2003 without comment.

The only change made from the draft permit to the final permit involves Condition 6.2.11 which requires a Startup, Shutdown, and Malfunction Plan to be written within 1 year of publication of NESHAP 40 CFR 63 Subpart AAAA. When the draft permit was written, the final publication date of Subpart AAAA was unknown. Condition 6.2.11 is changed to indicate the actual date (1/24/04) that the plan must be written.