

**Pima County Department of Environmental Quality  
Solid Waste Management Division  
Air Quality Permit # 5011**

**TECHNICAL SUPPORT DOCUMENT (TSD)**

**April 21, 2009**

**I. General Comments:**

**A. Company Information**

1. Pima County Department of Environmental Quality-Solid Waste Management Division  
Tangerine Landfill
2. Physical Address: 10220 West Tangerine Road, Marana, AZ 85653.  
Mailing Address: 5301 West Ina Road, Tucson, AZ 85743.

**B. Background**

The Tangerine Landfill (Landfill) is an active municipal solid waste landfill owned and operated by the Pima County Department of Environmental Quality Solid Waste Management Division. The facility began accepting waste at the beginning of 1984. The total site area is approximately 80 acres. The landfill has two disposal units, separated by a utility easement that runs through the property, combining for a waste footprint of 55 acres. The types of wastes accepted for landfilling are municipal solid waste, green waste, construction debris, manure livestock waste, inert materials, and dead animals.

In 2005 the landfill exceeded a design capacity of 2.5 million cubic meters or 2.5 million megagrams and therefore is subject to Title V regulations as part of conformance to the NSPS for Municipal Solid Waste Landfills, promulgated under 40 CFR 60, Subparts Cc and WWW, and codified under Pima County Code (PCC) 17.16.490.

Landfills subject to Subpart WWW with non-methane organic compound (NMOC) emissions that exceed 50 Mg/yr are required to design, construct, and operate a gas collection and control system (GCCS). Modeling predicts that NMOC emissions will peak in 2010, the year after closure, at 9.3 Mg. This is less than 50 Mg/yr and therefore Tangerine Landfill is not required to install a GCCS.

**C. Attainment Classification**

The Landfill is located in a region that is designated as attainment for all criteria pollutants.

**II. Source Description**

**A. Process Description**

Activities conducted at the Landfill include landfilling operations, leachate management, cover operations, and recycling activities. The activities are described in detail below.

1. Landfill Operations

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Municipal solid waste (MSW) and other types of solid waste are brought to the facility via non-county collection trucks and private vehicles. The MSW is disposed of in a lined disposal area, is compacted by heavy equipment and covered at the end of each workday. Daily cover is imported to the facility as there are no soil stockpiles on site. Landfill equipment used includes compactors, dozers, scrapers, motor graders, loaders, water trucks and other on-site vehicles.

2. **Leachate Management**

Leachate generated within the Landfill is collected via a leachate management system. Collected leachate is sent to a lined evaporation pond where the leachate is held while it evaporates.

3. **Recycling Activities**

Recyclable materials such as aluminum, scrap metal, computers, and white goods are stored in designated areas. Freon-containing appliances are stored separately from other appliances prior to removal of Freon in accordance with 40 CFR 82 regulations.

**B. Operating Schedule**

The Landfill is permitted to operate 24 hours a day, 7 days per week (8760 hours per year).

**C. Applicability Categories**

The following categories are addressed by the permit:

1. Municipal Solid Waste Landfill. (NSPS and NESHAP)
2. Particulate Matter Standards.
3. Odor Limiting Standards.

**D. Air Pollution Control Equipment**

The Landfill utilizes water trucks to control fugitive dust at the site.

**III. Regulatory History**

There is no regulated history of the Landfill. This is the first permit to be issued for this facility

**A. Testing & Inspections**

None. This facility was previously not required to be permitted. Inspections will be conducted after the issuance of the permit.

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**B. Excess Emissions**

There has been no history of Notices of Violations for any excess emissions at this site.

**IV. Emission Estimates**

Pollutants emitted from the Landfill include volatile organic compounds (VOCs), particulate matter (including PM<sub>10</sub> and PM<sub>2.5</sub>), and various hazardous air pollutants (HAPs). Emission calculations have been submitted, reviewed and approved. The table below is a summary of the emissions at the facility.

These values may be used for the following purposes:

- (i). Ascertaining “major source” status of IGS pursuant to CAA Sec 501 (2);
- (ii). Comparing source potential-to-emit with emission rates allowable by relevant standards; and
- (iii). Comparing source potential-to-emit with emissions inventory and test data.

<b>Pollutant</b>	<b>2006 Actual</b>	<b>PTE</b>
	<b>tons/year</b>	<b>tons/year</b>
PM <sub>2.5</sub>	1.26	1.33
PM <sub>10</sub>	12.41	13.17
VOC's	1.74	3.58
Total HAPs	2.59	5.32

**V. Applicable Requirements**

**A. Standards addressed by the permit:**

1. Pima County State Implementation Plan (SIP):

- Rule 315 Roads and Streets
- Rule 318 Vacant Lots and Open Spaces
- Rule 321 Standards and Applicability
- Rule 343 Visibility Limiting Standard

2. Code of Federal Regulations Title 40:

- 40CFR60, Subpart WWW Standards of Performance for Municipal Solid Waste Landfills:
- 40CFR63, Subpart AAAA National Emission Standards for Hazardous Air Pollutants:  
Municipal Solid Waste Landfills

3. Pima County Code (PCC) Title 17, Chapter 17.16:

- 17.16.020 Noncompliance with Applicable Standards
- 17.16.030 Odor Limiting Standards
- 17.16.050 Visibility Limiting Standards
- 17.16.060 Fugitive Dust Producing Activities
- 17.16.080 Vacant Lots and Open Spaces

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- 17.16.090 Roads and Streets
- 17.16.100 Particulate Materials
- 17.16.390 Municipal Solid Waste Landfills

B. Standards which are not applicable:

PSD/NSR. PSD is not applicable because emissions at the facility are less than 250 TPY. Non-attainment NSR is not applicable because the facility is in an area that is classified in attainment for all pollutants.

**VI. Permit Contents**

**A. Emission Limits/Standards:**

1. Municipal Solid Waste Landfill (NSPS and NESHAP) [II.A of Part B of the permit]
  - a. The Permittee is required to comply with 40 CFR 60 Subpart WWW, "Standards of Performance for Municipal Solid Waste Landfills" by recalculating the NMOC emission rate annually and submitting an annual emission report to the Control Officer. The procedures for calculating the emission rate are provided in the permit.
  - b. If the NMOC emission rate, exceeds 50 megagrams per year, the Permittee is required to install a collection and control system in compliance with 40 CFR 60.752(b)(2).
  - c. When the landfill is permanently closed, the Permittee is required to submit a closure notification to the Control Officer as provided for in 40 CFR 60.757(d).
2. Particulate matter standards
  - a. Opacity limiting standards [II.B.1 of Part B of the permit]

These are standard opacity requirements for sources operating in Pima County.
  - b. Visibility limiting standards

These visibility standards prevent the Permittee from having visible emissions go beyond the property line of the facility. The Permittee is required to control air born particulate matter at all times using reasonable measures. As long as the Permittee is using reasonable measures, the Permittee is in compliance when the wind speed exceeds twenty five miles per hour. Emissions from undisturbed land are not affected by this requirement.
  - c. The Permittee is required to apply adequate amounts of water, or other effective dust suppressants until the area becomes permanently stabilized.
  - d. Vacant lots, open spaces, roads and streets

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These generic Pima County Code dust control standards describe how the Permittee should control dust from on site activities.

- e. Particulate Materials and Fugitive Dust Producing Activities

These generic Pima County Code dust control standards describe how the Permittee should control dust from on site activities which may include construction, transportation and storage of particulate matter.

- f. Odor Limiting Standard

This standard requires the Permittee to control all odors from operations at the facility so as not to cause air pollution.

**B. Monitoring**

- 1. Municipal Solid Waste Landfill (NSPS and NESHAP)

- a. This standard requires the Permittee to calculate the NMOC emission rate using the actual year-to-year solid waste acceptance rate and the equation provided by the standard.
- b. After calculating the emission rate the Permittee compares the calculated NMOC mass emission rate to the standard of 50 megagrams per year. If the NMOC emission rate calculated is less than 50 megagrams per year, then the Permittee is required to submit an annual emission rate report with the recalculated NMOC mass emission rate. If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, then the Permittee is required to install a gas collection system. The Permittee may determine a site-specific NMOC concentration and recalculate the NMOC emission rate. If this rate is still equal to or greater than 50 megagrams per year then the Permittee will install the gas collection system required above.

- 2. Particulate Matter

The Permittee is required to conduct a survey of any visible emissions from sources of fugitive dust. If the emissions appear to exceed 20% the Permittee is required to conduct a Method 9 observation. If the Method 9 results show that the visible emissions exceed 20% then the Permittee shall take immediate action to reduce the opacity below 20%.

**C. Recordkeeping:**

- 1. Municipal Solid Waste Landfill (NSPS and NESHAP)

The Permittee is required to keep readily accessible on site records of all required monitoring for at least 5 years. Keeping these records verifies that the Permittee is recalculating the design capacity of the landfill.

- 2. The Permittee is required to keep records of the following: the name of the observer, the date the observations were made, fugitive dust sources observed, results of the observations, and any corrective actions taken. These records verify that the Permittee is monitoring all fugitive dust

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sources and showing compliance with emission limits and standards. Pima County Code requires all records to be kept on site or readily accessible for a period of five years.

**D. Reporting:**

1. Municipal Solid Waste Landfill (NSPS and NESHAP)
  - a. The Permittee submitted the initial design capacity report as required by federal regulations.
  - b. The Permittee is required to submit an NMOC emission rate report to the Control Officer annually. The Control Officer may request such additional information as may be necessary to verify the reported NMOC emission rate. The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual emissions.
2. Facility Wide Requirements

These are standard Pima County Code permit reporting requirements for Title V sources which include excess emissions and deviations, compliance certifications, semi annual reports of required monitoring and emissions inventory reports. Reports are to be submitted as required by the permit and Pima County Code.

**E. Testing**

1. The only required testing is EPA Method 9, visible emissions observation test. This test is to be used as required by the permit when emissions appear to exceed 20% opacity.
2. If any other tests are necessary or required by the Control Officer, a written request with the appropriate test methods shall be made to the Control Officer or Permittee respectively.

**VII. Previous Permit Conditions**

Since this permit is for a “new” facility, there are no previous permit conditions.