

**COPPER MOUNTAIN LANDFILL, INC.
TECHNICAL REVIEW AND EVALUATION
OF APPLICATION FOR
AIR QUALITY PERMIT NO. 36438**

I. INTRODUCTION

This Class I air quality control renewal permit no. 36438 is for the operation of an existing municipal solid waste landfill that is owned and operated by Copper Mountain Landfill, Inc.

A. Company Information

Facility Name:	Copper Mountain Landfill, Inc.
Facility Address:	34583 East Co. 12 th Street Wellton, AZ 85356
Mailing Address:	34583 East Co. 12 th Street Wellton, AZ 85356

B. Background

This source is an existing municipal solid waste landfill operating under Permit No. 1000734 which expired on September 6, 2005.

C. Attainment Classification

Copper Mountain Landfill is located in an attainment area with respect to all the criteria pollutants.

II. FACILITY DESCRIPTION

Process Description

Copper Mountain Landfill (CML) accepts household waste (including yard clippings and other green waste), white goods (void of CFCs), construction and demolition debris, tires (segregated and temporarily stored until they are shipped off-site), Asbestos, wastewater treatment plant sludge, Petroleum Contaminated Soil (PCS), fly Ash and other non-hazardous waste. The facility has a design capacity of more than 2.5 million megagrams.

The primary activities at the landfill are the transportation and deposition of refuse along with the excavation and stockpiling of cover material and soil. A definite area of the landfill is excavated, lined, and prepared to receive waste. Cell construction continues as a cut-and-fill operation, and excavated material is used for daily, intermediate and final cover.

Due to natural decomposition of waste material and evaporation of Volatile Organic Compounds (VOCs), landfill gases (LFG) are emitted from the landfill. These contain about 50% Methane (CH₄), 50% carbon dioxide (CO₂) and a fraction of non-methane organic compounds (NMOCs). Particulate matter emissions are due to traffic on unpaved roads, application of cover, soil stockpiling, and wind erosion.

A leachate collection and recovery system is provided to collect and withdraw leachate. This leachate is used as dust suppressant on the landfill or sent to leachate evaporation pond.

The facility also has a liquid waste solidification process. The liquid waste is treated with an absorbing agent (e.g., soil, sand, lime, fly ash etc.) and converted into solid waste for disposal in the landfill.

The landfill is operating 295 days per year.

III. COMPLIANCE HISTORY

Copper Mountain Landfill has been in compliance with the permit conditions.

IV. EMISSIONS

Estimates of non-methane organic compound (NMOC) emissions were calculated using the equation specified in 40 CFR §60.754(a)(1)(i). Based on Tier 2 emission survey, in 2003, NMOC concentration was estimated to be 1004.65 parts per million by volume (ppmv), resulting in an current NMOC generation rate of 32.8 Mg/yr in year 2005. Using this NMOC generation rate and an annual growth rate of 3%, the landfill is expected to exceed the 50 Mg/yr threshold during the current permit period and in year 2011(end of the permit period), it will be approximately 50.8 Mg/yr. When the landfill does approach the threshold, it will be required to implement a landfill gas collection system.

Particulate emissions are produced by unpaved road traffic, scraper operations and operation of construction vehicles. Dust control is accomplished by use of a water truck. Using AP-42, the total controlled PM₁₀ emissions from the facility is 7.55 tpy. The expected PM₁₀ emissions (with controls) from the facility at the end of the permit term will be approximately 10.7 tpy.

Following Table provides current emissions as well as PTE in year 2011.

Pollutant	Current Emissions	Emissions (Yr 2011)
	Ton per year	Ton per year
NMOC	32.7	50.8
PM ₁₀	7.55	9.12
NO _x	9.91	9.91
CO	2.14	2.14
SO ₂	0.66	0.66
VOC	28.86	39.82
HAPs	16.98	21.83

V. APPLICABLE REGULATIONS

The applicable regulations were identified by the agency as part of the application packet. If necessary, the source is required to list any additional regulations that may be applicable. Table 2 displays the applicable requirements for each piece of equipment under this proposed permit.

Table 2: Verification of Applicable Regulations

Unit	Date of Construction./ Modification	Control Device	Rule	Verification
MSW Landfill	Modified in 1999	Required when NMOC \geq 50 Mg/yr	40 CFR §60, Subpart WWW, 40 CFR §63 Subpart AAAA	40 CFR §60 Subpart WWW regulates emissions of landfill gas from MSW landfills. National Emission Standard for Hazardous Air Pollutants (40 CFR §63 Subpart AAAA) requires a Startup, Shutdown and Malfunction (SSM) plan to be in place when the facility has a collection and control system in place.
Generators	N/A	N/A	R18-2-719	This standard applies to all stationary rotating machinery
Fugitive dust sources	N/A	Water and other reasonable precautions.	Article 6 of the AAC	These standards are applicable to all fugitive dust sources.
Asbestos Handling	N/A	N/A	40 CFR §61.154 (Subpart M)	Standards for disposal of asbestos-containing waste
Mobile sources	N/A	Water Sprays/Water Truck for dust control	Article 8 of the AAC	Opacity requirements for smoke and dust for mobile sources (construction equipment, etc.).
Stratospheric Ozone	N/A	N/A	40 CFR §82, Subpart F	Requirements for control of ozone-depleting substances

VI. PREVIOUS PERMIT CONDITIONS

This operating permit number 1000734 was issued to Copper Mountain Landfill on October 11, 2000, for the operation of a Municipal Solid Waste Landfill.

Table 3: Permit # 1000734

Condition No.	Determination				Comments
	Revise	Keep	Delete	Stream-line	
Att. A.	x				General Provisions - Revised to represent most recent permitting language.
Att B.I.			x		Relationship to State Implementation plan – deleted as this is not installation permit.
Att B.II		x			NMOC Compounds
Att B.III.A		x			Collection and Control System Requirements – installation standards

Att B.III.B		x			Removal Standards
Att B.III.C		x			Operational Standards
Att B.IV		x			Specifications for active collection system – renumbered as III.D
Att B.V		x			Compliance Provisions – renumbered as III.E
Att B.VI		x			Monitoring of operations – renumbered as III.F
Att B.VII		x			Recordkeeping Requirements – renumbered as III.G
Att B.VIII		x			Reporting Requirements – renumbered as III.H
Att B.IX		x			Asbestos Requirements – relocated as Section IV.
Att B.X	x				Fugitive Dust Requirements - Revised to represent most recent permitting language. Relocated as Section V.
Att B.XI		x			Generators Requirements – Relocated as Section VI.
Att B.XII	x				Mobile Sources Requirements - Revised to represent most recent permitting language and relocated as Section VII.
Att B.XIII		x			Facility wide requirements – relocated as Section I
Att B.XIV		x			Stratospheric Ozone requirements – relocated as Section VIII.

VII. MONITORING AND RECORDKEEPING REQUIREMENTS

A. NMOC

The permit contains requirements for calculating and monitoring NMOC emissions on an annual basis, per 40 CFR §60, Subpart WWW. The Permittee is required to keep track of NMOC emissions in order to determine when and if the 50 Mg/yr threshold will be reached. When the threshold is reached, then a collection and control system is required, and additional monitoring requirements are triggered. These requirements are included in the permit. It is anticipated that CML will trigger these requirements in this permit term.

B. OPACITY

The permit requires the source to perform bi-weekly observations of the various fugitive dust emissions plumes, and if a plume appears to exceed the opacity standard, a 6-minute Method 9 observation is to be conducted. Bi-weekly surveys are to be conducted for any stationary rotating machinery stacks, and Method 9 observations performed if opacity appears to exceed the standard. The Permittee is to keep records of the date, time, location and results of any Method 9 observation made, as well as the name of the observer who conducted the test.

C. ASBESTOS

The Permittee is required to monitor the waste that is being accepted for all asbestos-containing waste material and maintain shipment records of all asbestos containing materials that enter the landfill.

D. Ozone Depleting Materials

The Permittee is required to monitor the amount of ozone depleting material that enters the landfill area and dispose of it in the proper manner specified in Attachment “B” of the permit.

VIII. INSIGNIFICANT ACTIVITIES

The applicant has requested the following activities to be deemed as “insignificant”. According to A.A.C. R18-2-101.57, for an activity to be deemed “insignificant”, there should be no applicable requirement for the activity. This was the basis used to determine if the activities in the following list qualify as an “insignificant” activity under Arizona law.

Table 3

Activity	Insignificant Yes/No	Reason and Applicable Regulation
2800 gallon diesel storage tank	Yes	Diesel/waste oil storage – A.A.C. R18-2-101.57(c)
300 waste oil fuel tank	Yes	Diesel/waste oil storage – A.A.C. R18-2-101.57(c)
Landscaping, building, maintenance or janitorial activities	Yes	A.A.C. R18-2-101.57(a)
Hand-held or manually operated tools or equipment for cutting, buffing, polishing, carving, drilling, machining, sanding, sawing and grinding.	Yes	A.A.C. R18-2-101.57(f)
Brazing or welding equipment	Yes	A.A.C. R18-2-101.57(j)
IC engines driven air compressors, and pressure washer	No	A.A.C. R-18-2-719 applicable.

IX. LIST OF ABBREVIATIONS

- A.A.C.....Arizona Administrative Code
- CFR.....Code of Federal Regulations
- COCarbon Monoxide
- EPA.....Environmental Protection Agency
- HAPsHazardous Air Pollutants
- NO_x.....Nitrogen Oxides
- NSPS.....New Source Performance Standard
- PM.....Particulate Matter
- PM₁₀.....Particulate Matter Less than 10 Microns
- PTE.....Potential to Emit
- SO₂Sulfur Dioxide
- VOC.....Volatile Organic Compounds
- Yr.....Year