**Statement of Basis for**

Construction Air Permit Quality Application

New Mexico Environment Department (NMED)

Air Quality Bureau (AQB)

**Type of Permit Application:** Construction Air Permit

**Facility:** Camino Real Landfill

**Company:** Camino Real Environmental Center

**Title V Air Quality Permit Number**: P186L-R3

**Construction Air Permit Application Number:** 7592 – December 2018

**Tempo/IDEA ID No.**: 167 - PRT20150001

**Permit Writer:** Cember Hardison

**Application Fee**

|  |
| --- |
| **Paid Invoice Attached:** [X] Yes [] No |
| **Balance Due Invoice Attached:** [x] Yes [X] No |
| **Invoice Comments: permit fee paid**  |

**Draft Permit Review Tracking**

|  |  |
| --- | --- |
| **Date to Enforcement:** not submitted | **Date of Enforcement Reply:**  |
| **Date to Applicant:** Jan 3, Feb 25, 26 | **Date of Applicant Reply: Feb 20** |
| **Date to EPA: N/A** | **Date of EPA Reply: N/A** |
| **Date to Supervisor:** Jan 3, Feb 26, Mar 4 |

1. **Landfill Process Description**

The Camino Real Landfill (CRLF) is located at 1000 Camino Real Blvd, Sunland Park, New Mexico in Doña Ana County and began operating in 1977.

It is a municipal solid waste (MSW) landfill that receives household trash; commercial trash, for example from schools and restaurants; and Special Wastes that include industrial waste, sludge, and petroleum contaminated soils. The landfill is not authorized to accept any hazardous or medical waste.

The landfill includes a public convenience station for residential self-hauler customers and a recycling center.

The air emission sources at this landfill that are subject to an air quality permit include.

* Paved and unpaved haul roads that can generate dust
* Earth moving equipment that can generate dust
* Landfill Gas from the decomposition of the waste
* An open, utility flare that will be used to combust the landfill gas (LFG)
* A land farm for soil that is contaminated with petroleum hydrocarbons such as gasoline or diesel fuel. Some of the hydrocarbons are degraded by microorganisms, but some also evaporates to the air.

**Gas Collection and Control System (GCCS)**

Federal regulation 40 CFR 60, Subpart WWW that applies to landfill gas requires a GCCS to capture landfill gas to obtain a methane concentration at the landfill surface of 500 ppm or less. The GCCS capacity, which may need to be increased in the future, is designed to achieve a capacity to pull up to 3,000 standard cubic feet per minute (scfm) of landfill gas using two Hoffman 38303 Gas Blowers, each with a capacity between 300 scfm to 1500 scfm and is routed to a utility candlestick flare.

**Co-located Four Peaks Energy, LLC facility**

There is also a Landfill Gas to Energy Facility (LFGTE) located at the landfill, the Four Peaks Energy facility (#3275-M2). The Energy Facility includes two, 2242 horse power engines that combust the landfill gas as fuel for beneficial use to generate electric power. When operating the engines can accept about 550 scfm of landfill gas each, for a total of 1100 scfm of landfill gas combusted.

In 2001, the landfill constructed a landfill gas collection and control system (GCCS) to route landfill gas (LFG) to either the landfill’s utility flare or to the Four Peaks Energy facility for combustion. In 2018, the GCCS was expanded to capture more LFG as required by the federal air quality regulation that applies to landfills called NSPS WWW, located at 40 CFR 60.750.

The landfill operates under a Solid Waste Permit (No. SWM-030738) issued by the New Mexico Environment Department (NMED), Solid Waste Bureau. An air quality permit is also required for this landfill.

1. **Purpose of This Application:**

The landfill recently improved its gas collection and control system (GCCS) so more LFG will be routed to the utility flare which will increase the flare emission rates.

1. **Determination of Landfill and Energy Plant Sources Per the Air Quality Regulations:**

The AQB has determined that the Camino Real Landfill and the Four Peaks Energy Center (#3275-M2), a Landfill Gas to Energy Facility (LFGTE), are separate sources and so their air emission rates should not be combined to determine what kind of air quality permit is required. For example, if the maximum expected emission rates are 100 tpy or more for a regulated air pollutant, a Title V permit would be required.

To be considered the same source, requiring emissions to be combined, the two facilities would need to meet three criteria;

1) having the same standard industrial code (SIC) two-digit grouping; 2) being owned, operated, and/or under control of the same organization or company; and 3) being located on the same property or located on adjacent properties.

The facilities are located on the same property and fall under the same two digit SIC code category, but they are owned and operated by two separate legal entities. Therefore, the landfill and energy plant are not defined as a single source per the air quality regulations.

* The landfill’s SIC code is 4953 Sanitary Services
* The energy plant’s SIC code is 4911 Electric Services

The landfill is owned and operated by Camino Real Environmental Center, Inc., a wholly-owned subsidiary of Waste Connections, Inc.

The LFGE facility is owned and operated by ENERGYneering Solutions.

The LFGE facility is located on a leased parcel of land (approximately 0.25-acres) located within the landfill’s property boundary.

1. **Prevention of Significant Deterioration (PSD) and Nonattainment Applicability:**

**PSD – Not Subject**

The Camino Real Landfill is not a PSD major source since the emission rates of any one regulated air quality pollutant that is emitted from a stack is less than 250 tons per year (tpy). (20.2.74.7.AF(2) New Mexico Administrative Code (NMAC))

**Major Nonattainment Permit Requirements 20.2.79 NMAC** [PERMITS - NONATTAINMENT AREAS](http://164.64.110.239/nmac/parts/title20/20.002.0079.htm) **– Not Subject**

**Minor Nonattainment Permit Requirements 20.2.72.216 NMAC** [CONSTRUCTION PERMITS](http://164.64.110.239/nmac/parts/title20/20.002.0072.htm) **– Not Subject**

Nonattainment permits can apply regardless if the area designation is nonattainment or attainment/unclassifiable, since nonattainment permits are based on either a monitored or modeled nonattainment and federal CAA regulations require nonattainment permits for sources that cause or contribute to nonattainment in designated attainment/unclassifiable areas.

The Camino Real Landfill is located in the designated ozone nonattainment area located in Doña Ana County <https://www.env.nm.gov/air-quality/ozone/>

This facility is now a major Title V source, due to the increase in CO flare emission rates. However, it is not a major nonattainment source, since the facility is not major for NOx or VOCs, the air pollutants subject to regulation in the ozone nonattainment area.

The landfill is also not subject to the minor source nonattainment permit requirements at 20.2.72.216 NMAC based on the following determination made by the Permit Programs Manager, Ted Schooley:

* Regulation citations from 20.2.72.216 NMAC
* “that will emit a regulated air contaminant such that the ambient impact of the contaminant would exceed the significant ambient concentration in table 1 … .”
* "Regulated air contaminant" means, any air contaminant, the emission or ambient concentration of which is regulated pursuant to the New Mexico Air Quality Control Act or the federal act. [20.2.72.7.AA NMAC]
* Ozone does meet the definition of a regulated air contaminant. However, the ambient impact of the contaminant must also exceed the significant ambient concentration in table 1. Ozone is not listed in table 1, nor is there is any provision at 20.2.72.216 NMAC that provides a legal mechanism to tie ozone to any of the pollutants listed in 20.2.72.500 NMAC, Table 1.
* Based on the analysis above, the minor source non-attainment provisions at 20.2.72.216 NMAC do not apply to ozone nonattainment.

| 1. **Permit History**

\*The asterisk denotes the current active NSR and Title V permits that have not been superseded. |
| --- |
| **Permit Number** | **Issue Date** | **Action Type** | **Description of Action (Changes)** |
| P186LR3 |  | Title V Significant Modification  | The requirements from 2018 NSR permit number 7592, will be incorporated into the landfill’s Title V permit. |
| 7592\* | 3-11-19 | New Construction Permit | The Camino Real Landfill added to and improved their Gas Collection and Control System (GCCS) that was required as of November 16, 2018 by New Source Performance Standard (NSPS) WWW. The landfill gas (LFG) is generated by decomposition of the solid waste. This improvement to the GCCS will increase the amount of LFG routed to the Landfill’s utility flare which will increase the amount of gas combusted and the emission rates from the flare. LFG will still be sent to the co-located Four Peaks Energy facility, a beneficial-use to-energy plant, that generates commercial electric power, but during times when Four Peaks cannot accept any or all of the LFG for power generation, it must be combusted and destroyed by the landfill’s utility flare. |
| P186LR3 | withdrawn | Title V Significant Mod | Application to incorporate changes in NSR 7592 was withdrawn. |
| 7592 | withdrawn | New construction permit | The application submitted previously in December 2017, was withdrawn by the Camino Real Landfill Environmental Center with approval by the Air Quality Bureau (AQB) and was replaced with a December 2018 application. |
| P186L-R3\* | 6/13/2017 | Title V Renewal | Renewal of Title V permit. This renewal consists of reactivating (white it has remained permitted) the Gas Collection and Control System (GCCS) since testing shows that the facility has now triggered the 50 Mg of NMOCs emission rate and is subject to NSPS WWW requirements.  |
| RO Change | 7/16/2014 | TV Administrative Amendment | Responsible Official changed from James Nordstrom to Dr. Juan Carlos Tomas. |
| P186LR2M1 | 1/18/2013 | TV Significant Modification | This modification consists of removal the NSPS WWW requirement for a Gas Collection and Control System (GCCS) since testing showed that the facility had not yet triggered the 50 Mg of NMOCs emissions. The system will remain in place and can be operated on a discretionary basis. |
| P186LR2 | 11/10/2011 | Title V renewal | Title V 5-year permit renewal. |
| No change in operations or addition of new equipment. Existing emission rate changes due to selection of different methods of calculations. Change in haul roads/routes due to cell management plan.After the issuance of Title V Operating Permit No. P186L-R1, USEPA promulgated the PM2.5 significant impact level (SIL) and modeling requirements. Thus, this application represents the first time that PM2.5 emissions have been calculated and modeled for the facility. Fugitive dust emissions from facility operations and vehicle travel have increased due to changes in the orientation and length of on-site roads; the relocation of the active disposal area from Cell 10 to Cell 3.1; the closure of the soil stockpile area; and the removal of US Border Patrol activity from fugitive dust calculations (at the direction of AQB). Landfill gas (LFG) flare emission rates have decreased and fugitive LFG emissions have increased because of updates to the GCCS control efficiency methods, which now more closely parallels the Mandatory Greenhouse Gas Reporting Rules set forth by USEPA. Previous flare emission rates were based on 100% GCCS control efficiency with an associated 50% increase to flare emission rates. Flare emission rates in this application are based on a 75% GCCS control efficiency and 25% fugitive LFG emission rates. Based on EPA’s ROC this permit also revised General Condition B110.C relating to “Prompt Reporting of Deviations”. |
| P186LR1M2 | 2/7/2011 | TV Administrative Amendment | Approved an alternate monitoring threshold for oxygen at 17 of the site’s landfill gas extraction wells. |
| P186LR1M1 | 2/5/2008 | TV Administrative Amendment | Established dates for the submittal of Semi-Annual Monitoring Reports and Annual Compliance Certifications. |
| P186LR1 | 4/12/2007 | Title V renewal | Five year renewal of Title V (TV) Operating Permit. |
| P186L | 4/30/2001 | Initial Title V  | Title V Permit with a landfill gas collection and control system (GCCS) and utility flare. |

1. **Public Response/Concerns:**

Per AQB Bureau Chief, the permittee was not required to re-submit the public notice that was completed for the 2017 application that was withdrawn.

The AQB published another public notice, in English and Spanish, in the El Paso Times and the Spanish Language paper El Paso y Mas on December 23, 2018.

The Public notice and the Camino Real Landfill air quality permit application are also posted to this website: <https://www.env.nm.gov/air-quality/permit-applications-with-public-interest-public-meeting-or-public-hearing/>

As of the current date, no comments or inquiries have been received for this application.

1. **Emissions from Startup and Shutdown:**

The applicant states that a startup, shutdown, and emergency operational plan was developed in accordance with 20.2.70.300.D(5)(g), 20.2.72.203.A.5 NMAC, and 20.2.7.14.A and B NMAC.

**According to the application, this facility does not have any emission rates during starting up, shutting down, or maintaining equipment that would exceed or not be covered by a permitted emission limit.**

1. **Compliance and Enforcement Status:** - There are no outstanding areas of concern or violations for this facility.
2. **Air Dispersion Modeling:**

The AQB reviewed the air dispersion modeling which showed that air emission rates from the facility meet the ambient air quality standards for all pollutants. Per this analysis, operations that generate dust are allowed only during daylight hours, from 5am to 5pm.

1. **State Regulations Determination (New Mexico Administrative Code (NMAC)**)**:**

| **20****NMAC**  | **Title** | **Applies** **(Y/N)** | **Unit(s) or Facility** | **Comments** |
| --- | --- | --- | --- | --- |
| **2.1** | GENERAL PROVISIONS  | Yes | Entire Facility | The facility is subject to 20.2.1 NMAC General Provisions, including Section 116 that applies to significant figures & rounding.  |
| **2.3** | NM Ambient Air Quality Standards | Yes | Entire Facility | New Mexico has its own set of ambient air quality standards. The Total Suspended Particulates (TSP) standard was repealed in 2018 and so no longer applies. The TSP standard was to mitigate nuisance dust and not intended as a health-based standard.The federal ambient air quality standards for PM10 and PM2.5 are the health-based standards that apply to PM. |
| **2.7** | Excess Emissions | Yes | Entire Facility | Applies to all stationary and portable stationary air emissions sources subject to regulation.  |
| **2.23** | Fugitive Dust Control | No | Units 1 and 2 | This regulation became effective January 1, 2019.The landfill is located in an area requiring a mitigation plan per 40 CFR 51.930, but since it is subject to an air quality permit that includes conditions to limit fugitive dust, this regulation does not apply (20.2.23.108.A and 20.2.23.108.B(3) NMAC). |
| **2.61** | Smoke and Visible Emissions | Yes | Unit 5 | The Flare is subject the 20% opacity limit from combustion sources. The flare meets this requirement by meeting 40 CFR 60.18 which requires that the flare be operated with no visible emissions or no visible smoke. |
| **2.64** | Municipal Solid Waste | No | Units 3 and 5 | This regulation would apply except it was updated to remove delegation of NSPS WWW and replaced it with delegation of NSPS XXX.However, the AQB still has delegated authority to regulated NSPS WWW under state regulation 20.2.77 NMAC.  |
| **2.70** | Operating Permits | Yes | Entire Facility | The facility is subject to a Title V permit according to NSPS WWW and CO emission rates from the flare that are greater than 100 tpy.  |
| **2.71** | Operating Permit Fees | Yes | Entire Facility | The landfill is subject to 20.2.70 NMAC since it is a Title V major source with CO emission rates greater than 100 tpy.  |
| **2.72** | Construction Permits | Yes, but not annual fees. | Entire Facility | The landfill is subject to the minor source air quality application fees, but is not subject to annual fees since it is a Title V major source and so annual fees are charged per 20.2.71 NMAC.  |
| **2.72.216** | Nonattainment Area Requirements | No | Entire Facility | This applies to minor nonattainment sources or minor nonattainment modifications that are located in areas that are either monitored or modeled nonattainment. The designation of the area does not matter.This facility is located in the designated ozone nonattainment area located in Doña Ana County, but per the determination of the Permit Programs Manager, Ted Schooley, this facility is not subject to this regulation.  |
| To follow is the determination of the Permit Programs Manager.Regulation citations from 20.2.72.216 NMAC“ that will emit a regulated air contaminant such that the ambient impact of the contaminant would exceed the significant ambient concentration in table 1 … .”"Regulated air contaminant" means, any air contaminant, the emission or ambient concentration of which is regulated pursuant to the New Mexico Air Quality Control Act or the federal act. [20.2.72.7.AA NMAC]Ozone does meet the definition of a regulated air contaminant. However, the ambient impact of the contaminant must also exceed the significant ambient concentration in table 1. Ozone is not listed in table 1, nor is there is any provision at 20.2.72.216 NMAC that provides a legal mechanism to tie ozone to any of the pollutants listed in 20.2.72.500 NMAC, Table 1.Based on the analysis above, the minor source non-attainment provisions at 20.2.72.216 NMAC do not apply to ozone non-attainment”. |
| **2.73** | NOI & Emissions Inventory Requirements | Yes | Entire Facility | The landfill is subject to notice of intent requirements under 20.2.73.200 NMAC. The requirement is met with the construction permit application which covers both 20.2.73 and 20.2.72 NMAC.  |
| **2.77** | New Source Performance | Yes | Sources subject to a regulation in 40 CFR 60 | Applies to any stationary source constructing or modifying and which is subject to a requirement in 40 CFR Part 60.  |
| **2.78** | Emissions Standards for HAPs  | No |  | This regulation applies to all sources emitting hazardous air pollutants, which are subject to the requirements of 40 CFR Part 61. The landfill has no sources that are subject to these federal regulations. |
| **2.79** | Permits Nonattainment Areas | No | Entire Facility | This facility is located in the Sunland Park Ozone Nonattainment area but is not subject to 20.2.79 NMAC since it is not major for VOCs or NOx, the pollutants subject to regulation in ozone nonattainment areas.  |
| **2.82** | MACT Standards for Source Categories of HAPs | Yes | Sources subject to a regulation in 40 CFR 63 | This regulation applies to all sources emitting hazardous air pollutants, which are subject to the requirements of 40 CFR Part 63. |

1. **Federal Regulations Determination:**

| **Federal Regulation** | **Title** | **Applies****(Y/N)** | **Unit(s) or Facility** | **Comments** |
| --- | --- | --- | --- | --- |
| Air Programs Subchapter C(40 CFR 50) | National Primary and Secondary Ambient Air Quality Standards | Yes | Entire Facility | Applies to stationary sources of air emissions at certain levels for which there is a Federal Ambient Air Quality Standard. |
| NSPS Subpart A(40 CFR 60) | General Provisions | Yes | Sources subject to a regulation in 40 CFR 60 | Subpart A of 40 CFR 60 applies.  |
| 40 CFR 60.18 |  |  | Unit 5 - Flare | Requirements for the candlestick flare (Utility Flare) GCCS control device. 60.752(b)(2)(iii)(A) The permittee must operate and design the flare in accordance with §60.18 except as noted in §60.754(e) (NSPS WWW).NSPS Cf 60.33f(c)(1) a non-enclosed flare control device shall be designed and operated in accordance with the parameters established in 60.18 except as noted in 60.37f(d) (NSPS Cf) |
| **NSPS WWW 60.752(b)(2)(iii)(A)**(iii) Route all the collected gas to a control system that complies with the requirements in either paragraph (b)(2)(iii) (A) or (C) of this section.(A) An open flare designed and operated in accordance with §60.18 except as noted in §60.754(e); **60.754   Test methods and procedures.****(e) For the performance test required in §60.752(b)(2)(iii)(A)**, **the net heating value of the combusted landfill gas as determined in §60.18(f)(3) is calculated from the concentration of methane in the landfill gas as measured by Method 3C.** A minimum of three 30-minute Method 3C samples are determined. The measurement of other organic components, hydrogen, and carbon monoxide does not apply. **NSPS Cf****60.33f(c)** Control system. For approval, a state plan must include provisions for the control of the gas collected from within the landfill through the use of control devices meeting the following requirements, except as provided in §60.37f(d).(**1) A non-enclosed flare designed and operated in accordance with the parameters established in §60.18 except as noted in §60.37f(d);****For the performance test required in §60.33f(c)(1),** the net heating value of the combusted landfill gas is calculated from the concentration of methane in the landfill gas as measured by Method 3C. A minimum of three 30-minute Method 3C samples are determined. The measurement of other organic components, hydrogen, and carbon monoxide does not apply.**NSPS, Subpart A 60.18   General control device and work practice requirements for flares applies.**   |
| 40 CFR 60 Subpart Cc | NSPS – Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills | No | Units 3 and 5 | The landfill is not subject to 40 CFR 60, Subpart Cc.It is subject to Subpart WWW since it was modified after May 30, 1992.  |
| 40 CFR 60 Subpart Cf | NSPS—Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills | Yes | Units 3 and 5 | NSPS Cf will apply once EPA approves the state plan. Until then, the NSPS WWW requirements must be met. EPA’s stay of the requirements of this subpart ended August 29, 2017. The AQB submitted the plan to EPA as required, but EPA is reconsidering this regulation and so has put all plan approvals on hold.  |
| **60.33f   Emission Guidelines for municipal solid waste landfill emissions.**(a) Landfills. For approval, a state plan must require each owner or operator of an MSW landfill having a design capacity greater than or equal to 2.5 million megagrams by mass and 2.5 million cubic meters by volume to collect and control MSW landfill emissions at each MSW landfill that meets the following conditions:(3) The landfill has an NMOC emission rate greater than or equal to 34 megagrams per year or Tier 4 surface emissions monitoring shows a surface emission concentration of 500 parts per million methane or greater. **The permittee of the Four Peaks Energy LLC facility must keep records per 60.39f(f) and make these records available to AQB and to Camino Real Landfill as the owner/operator subject to these requirements.** |
| 40 CFR 60WWW | NSPS- Standards of Performance for Municipal Waste Solid Landfills | Yes | Units 3 and 5 | Applies per 40 CFR 60.750(a)Once EPA approves the NSPS Cf state plan, these units will no longer be subject to NSPS WWW, but instead will be subject to NSPS Cf and the state plan. |
| **The permittee shall meet the requirements of NSPS WWW and the approved monitoring in Section 4 of the approved GCCS design plan.** NSPS WWW applies since the construction, reconstruction, or modification of this landfill occurred after May 30, 1991 and before July 17, 2014. **History:**In June 2016 the AQB was notified that NMOCs are greater 50Mg/yr triggering the requirement to install a gas collection and control system (GCCS) that captures the gas generated from decomposition of the landfill waste within 30 months after the first annual report in which emission rate equals or exceeds 50 megagrams per year. The NMOCs were recalculated using Tier 2 sampling under NSPS Rule (40 CFR 60, Subpart WWW), EPA methods 3C and 25C, in May 2015, showing they are >50Mg/yr.The landfill originally installed GCCS in 2000 and has operated it since then. The GCCS was subject to NSPS requirements between 2000 and 2013, and recently became subject to the full control requirements again in November 2018..  |
| 40 CFR 60Subpart XXX | NSPS – Standards of Performance for Municipal Waste Solid Landfills | No | Units 3 and 5 | The Facility is currently subject to 40 CFR 60, Subpart WWW since it does not meet the definition of a “new” landfill under 40 CFR 60, Subpart XXX. It is an “existing” facility as defined in 40 CFR 60, Subpart Cf.  |
| MACT Subpart A(40 CFR 63) | General Provisions | Yes | Units 3 & 5 | Applies if any other subpart under 40 CFR 63 applies.  |
| 40 CFR 63.6, Subpart A | Compliance with standards and maintenance | Yes | Unit 3 & 5 | Unit subject to 40 CFR 63 |
| 40 CFR 63 Subpart AAAA | National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills | Yes | Units 3 & 5 | The permit requires a facility-wide minor HAP limit to avoid being subject to this regulation.It appears that this regulation will not apply once NSPS Cf and the state plan takes effect since NSPS includes its own provisions during startup, shutdown, and maintenance.  |
| 40 CFR 68 | [PART 68—CHEMICAL ACCIDENT PREVENTION PROVISIONS](https://www.ecfr.gov/cgi-bin/text-idx?SID=3923e5c51bba4a619745644eb6f7bcae&mc=true&node=pt40.17.68&rgn=div5) | Yes | Chemical use at landfill | This regulation applies to preventing accidental releases of regulated substances (chemicals used for general operations) stored or used at certain quantities.The landfill has a Risk Management Plan in place.  |
| 40 CFR 82 | [PART 82—PROTECTION OF STRATOSPHERIC OZONE](https://www.ecfr.gov/cgi-bin/text-idx?SID=d4e134f88b7fbb53205f481e610ee04e&mc=true&node=pt40.21.82&rgn=div5) | Yes | Recycling center | The landfill is subject to Subpart F, Recycling and Emissions Reductions. EPA Guidance Page for 40 CFR 82: https://www.epa.gov/section608 |

1. **Minor NSR Exempt Equipment and TV Insignificant Activities**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Unit Number** | **Unit Description** | **Manufacturer** | **Model No.** | **Max Capacity** | **List Specific 20.2.72.202 NMAC Exemption (e.g. 20.2.72.202.B.5)** |
|
| **Serial No.** | **Capacity Units** | **Insignificant Activity citation (e.g. IA List Item #1.a)** |
|
| 2 | Diesel Fuel Storage Tank | N/A | N/A | 10,000 | 20.2.72.202.B(2)VOCs with vapor pressure of 0.2 PSI |
| N/A | gallons | I.A. List Items #1.a, and #8 |
| 2 | Waste Oil Storage Tank | N/A | N/A | 500 | 20.2.72.202.B(2)VOCs with vapor pressure of 0.2 PSI |
| N/A | gallons | I.A. List Item #5 |
| 2 | Parts Degreaser | ChemFree Corporation | N/A | <10mm Hg | 20.2.72.202(5) emissions less than 1/2 tpy |
| N/A | vapor pressure | I.A List Item #5 |
| 2 | Motor Oil and Antifreeze Storage | N/A | N/A | <1mm Hg | 20.2.72.202.B(2) VOCs with vapor pressure of 0.2 PSI |
| N/A | vapor pressure | I.A. List Item #5 |
| 2 | Portable Light Towers | Ingersol Rand | Lightsource | <1 ton/yr | 20.2.72.202.A(1) and (2)Activities for maintenance |
| LT06E4705 | emission rate | I.A List Item #6 |

See 20.2.72.202.A and B for minor NSR exempt equipment in this construction permits regulation:

[CONSTRUCTION PERMITS](http://164.64.110.239/nmac/parts/title20/20.002.0072.htm)

Link to Title V Insignificant Activity List

[List of Insignificant Activities](https://www.env.nm.gov/wp-content/uploads/2017/10/InsignificantListTitleV.pdf)

1. **New/Modified/Unique Conditions:**

**Table 102.A and footnote 1** – Although Particulate Matter (PM) does not have an ambient air quality standard, it is a regulated air pollutant that can cause a facility to be TV or PSD major by itself. The TSP NMAAQs was repealed but is still listed in the Title V regulation as a regulated air pollutant. Therefore, it is still included in Table 102.A although there are no specific requirements that apply.

**Table 103.A** The Permit Programs Manager, Ted Schooley, determined that ozone is not subject to the minor nonattainment permit requirements at 20.2.72.216 NMAC.

**Table 104** – TSP was removed from this table and replaced with PM since the TSP NMAAQS was repealed.

**An emission limit table, 106.A**, was added since the mass limits are what was used as assumptions in air dispersion modeling. PM emission limits are not required in section A106 since it does not have an ambient air quality standard, the facility is not subject to PM standards in 40 CFR 60, and no limits are needed to avoid Title V or PSD permit requirements.

**A106.B** – No additional conditions are needed to show compliance with the 20% opacity required by 20.2.61 NMAC since the flare is subject to no visible emissions (opacity) requirements in 40 CFR 60.18.

**A108.A** – Removed the limits on the days of the week of operations. The air dispersion modeling input does not consider the day of the week, only the time frame modeled for each day and the tpy emission rates based on annual operating hours.

**A108.B** – Added a new condition to show compliance with facility-wide HAPs limits set to remain a TV HAP minor source to avoid additional MACT AAAA requirements for HAP major sources. Records are not required until if and when the facility starts to accept petroleum contaminated soils (PCS) since only if PCS is accepted would the landfill come close to being a major HAP source.

**A701.A and B** were combined and revised to reflect current requirements in NSPS WWW, Cf, and the State Plan once approved. Also, 20.2.64 NMAC was removed from these conditions since NSPS WWW is no longer authorized through 20.2.64 NMAC. AQB has authority over NSPS WWW per 20.2.77 NMAC. Finally, we usually do not cite the state regulations that simply give AQB delegation.

**A701.B** – MACT AAAA. Updated the regulatory requirements in 40 CFR 63, Subpart AAAA. Once Cf and the State plan is in effect, MACT AAAA may no longer apply since Cf already includes MACT AAAA SSM provisions.

**A701.C** – Update and combine the NSPS A, WWW, and Cf requirements that apply to the Utility Flare, Unit 5.

**A701.D** – Add a condition to show compliance with mass emission limits for the Unit 5 Flare and uncaptured LFG from the landfill. The permittee demonstrates compliance with limits by meeting the requirements, monitoring, and records required by 60.18, NSPS WWW, and NSPS Cf. The gas blower capacity was not included in the condition since the landfill may need to increase that capacity in the future.

**A701.E –** Add a condition demonstrating compliance with Unit 3 VOC emission limits from the GCCS at any time LFG is emitted directly to the atmosphere and not routed to the flare or LFG treatment system as required by the applicable NSPS. The condition must state that records and reporting apply only when LFG is not controlled **per the applicable NSPS** or vented through a bypass valve, since it is not realistic for the GCCS to capture 100% of the LFG.

The NSPS’ require monitoring of LFG flow to the flare. They also require monitoring of bypass to the flare or a secure the bypass line valves in the closed position with a car-seal or a lock-and-key type configuration and inspections to ensure gas is not diverted through the bypass line.

NSPS’ also require monitoring for negative pressure in the GCCS, monitoring at each well head, and ground monitoring of methane around the perimeter of the landfill. Finally, Four Peaks LFG treatment system requires continuous monitoring of gas flowrate through the treatment system and no direct venting from the treatment system.

It would be rare to directly vent LFG to the atmosphere, even due to such events as a lightning strike to the controls since the lines coming from the GCCS to the controls would mosty likely automatically shut to avoid any infiltration of extra oxygen or other sources of combustion into the GCCS since it could result in an explosion and/or fire.

However, NSPS WWW and Cf require operation of the GCCS and any controls at all times except for 5 days for the GCCS and 1 hour for controls (flare or treatment system) during startup, shutdown, and malfunctions and require records and reporting of such events for up to.

**To follow are the pertinent sections from the regulation:**

***60.752   Standards for air emissions from municipal solid waste landfills.***

*(b) Each owner or operator of an MSW landfill* ***having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, shall*** *…….*

***(i) Submit a collection and control system design plan prepared by a professional engineer to the Administrator within 1 year:***

***(A) The collection and control system as described in the plan shall meet******the design requirements of paragraph (b)(2)(ii) of this section.***

***(ii) Install a collection and control system that captures the gas generated within the landfill as required by paragraphs (b)(2)(ii)(A) or (B) and (b)(2)(iii) of this section within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year****, ….*

***(A) An active collection system shall:***

*(1)* ***Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control*** *over the intended use period of the gas control or treatment system equipment;*

*(2)* ***Collect gas from each area****, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of:*

*(3) Collect gas at a sufficient extraction rate;*

*(4) Be designed to minimize off-site migration of subsurface gas.*

***(iii) Route all the collected gas to a control system*** *that complies with the requirements in either paragraph (b)(2)(iii) (A), (B) or (C) of this section.*

***(A) An open flare*** *designed and operated in accordance with §60.18 except as noted in §60.754(e);*

***(C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use.*** *All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of paragraph (b)(2)(iii) (A) or (B) of this section.*

*(iv)* ***Operate the collection and control device installed to comply*** *with this subpart in accordance with the provisions of §§60.753, 60.755 and 60.756.*

***60.753   Operational standards for collection and control systems.***

***Each owner or operator of an MSW landfill with a gas collection and control system used to comply with the provisions of §60.752(b)(2)(ii) of this subpart shall:***

*(a)* ***Operate the collection system such that gas is collected*** *from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:*

***(b) Operate the collection system with negative pressure at each wellhead except*** *under the following conditions:*

*(1) A fire or increased well temperature…..; …*

***60.755   Compliance provisions.***

***(e) The provisions of this subpart apply at all times,*** *except during periods of start-up, shutdown, or malfunction, provided that the* ***duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.***

***60.756   Monitoring of operations.***

*Except as provided in §60.752(b)(2)(i)(B),*

*(a) Each owner or operator seeking to comply with §60.752(b)(2)(ii)(A) for an active gas collection system shall install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:*

***(1) Measure the gauge pressure in the gas collection header on a monthly basis as provided in §60.755(a)(3); and***

*(2) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in §60.755(a)(5); and*

*(3) Monitor temperature of the landfill gas on a monthly basis as provided in §60.755(a)(5).*

***(c) Each owner or operator seeking to comply with §60.752(b)(2)(iii) using an open flare shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment:***

*(1) A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.*

***(2) A device that records flow to or bypass of the flare. The owner or operator shall either:***

***(i) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or***

***(ii) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.***

***60.757   Reporting requirements.***

***(f) Each owner or operator of a landfill seeking to comply with §60.752(b)(2) using an active collection system designed in accordance with §60.752(b)(2)(ii) shall submit to the Administrator annual reports of the recorded information in (f)(1) through (f)(6) of this paragraph.*** *The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under §60.8.* ***For enclosed combustion devices and flares, reportable exceedances are defined under §60.758(c).***

***(1) Value and length of time for exceedance of applicable parameters monitored under §60.756(a), (b), (c), and (d).***

***(2) Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under §60.756.***

***(3) Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.***

***(4) All periods when the collection system was not operating in excess of 5 days.***

*(5) The location of each exceedance of the 500 parts per million methane concentration as provided in §60.753(d) and the concentration recorded at each location for which an exceedance was recorded in the previous month.*

*(6) The date of installation and the location of each well or collection system expansion added pursuant to paragraphs (a)(3), (b), and (c)(4) of §60.755.*

***60.758   Recordkeeping requirements.***

***(c) Except as provided in §60.752(b)(2)(i)(B), each owner or operator of a controlled landfill subject to the provisions of this subpart shall keep for 5 years up-to-date, readily accessible continuous records of*** *the equipment operating parameters specified to be monitored in §60.756 as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.*

***(1) The following constitute exceedances that shall be recorded and reported under §60.757(f):***

*(2) Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible* ***continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under §60.756.***

***(4) Each owner or operator seeking to comply with the provisions of this subpart by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under §60.756(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.***

**A702.A and B** – Fugitive Dust Emissions from roads and landfill activities. The requirement to monitor visible emissions across the fence line was replaced with meeting the requirements of the landfill’s Dust Control Plan in Section A705. The Dust Control Plan is more stringent, thorough, and more practically enforceable than the no visible emissions across the fence line requirement.

**A703.A** Added 24 tpy total HAPs and 9 tpy single HAP from PCS and other sources. Also added a requirement to calculate the monthly rolling 12-month total of HAPs if and when PCS is ever accepted at the landfill. Records required only if PCS is received since the landfill would come close to being HAP major only if PCS was received.

**A704** – Attached is the approved NSPS Flexibilities from Section 4 of the GCCS plan.

**A705** – Attached is the dust control plan referenced in the fugitive dust conditions of the permit.

**Special Notes:**

**ABQ Emissions Calculations Review:**

For the construction permit, emission rates were determined using the highest expected rates during the life of the landfill rather than what is expected at every 5-year Title V air quality operating permit renewal. In some cases the controls used to calculate fugitive dust emissions resulted in higher emission rates than may be expected since some of the calculations did not consider some of the more effective dust control methods, such as surfactants, listed in the Dust Control Plan.

**Hours of Operation:**

* Annual Hours of Operation are limited to 3443 hours per year. Annual emissions from the landfill activities that generate dust (PM2.5 and PM10) from roads and landfill operations occur 313 days per year and 11.0 hrs/day, or 3443 hours per year.
* Air dispersion modeling of landfill dust (PM10 and PM2.5) was completed during daylight hours from 5am to 5pm to match more closely with facility operating hours and maximum emission rates.
* Landfill gas and flaring operations and emissions occur continuously.

**Water, or other controls per the Dust Control Plan, are used to reduce fugitive dust emissions from roads and most landfill activities**

Fugitive dust consists of Particulate Matter of all sizes. PM10 and PM2.5 are the only particulate matter with ambient air quality standards that require emission limits in the permit. Regardless applying water will reduce fugitive dust of all PM sizes, not only PM10 and PM2.5.

**Unit 1 Fugitive Dust Emissions from Paved Roads**

Used AP42 13.2.1 Paved Roads to calculate paved road emissions.

Apply water to paved roads to reduce fugitive dust by at least 40% to 90%

**Unit 1 Fugitive Dust Emissions from Unpaved Roads (dirt or basecourse)**

Used AP42 13.2.2 Unpaved Roads

Apply water to reduce fugitive dust by at least 60% to 90%

**Unit 2 Fugitive Dust Emissions from Grader, compactor, bulldozer operations**

Calculations are based on operations in the year 2080 at 1252 hours per year.

No reduction is taken for water controls.

**Unit 2 Fugitive Dust Emissions from Scraper Road Traffic**

Calculations assumed 30 trips per day, 313 days per year, 4.00 hrs/day.

Water was used as a control to reduce fugitive dust by at least 60%.

**Unit 2 Fugitive Dust Emissions from Scraper Loading and Unloading**

Scraper loading fugitive dust emissions occur at the cover soil borrow area and scraper unloading dust emissions occur at the stockpile or disposal area.

Calculations assumed 30 loads/day, 20 yr3/load, 1.2 tons/load, 720 tons/day, 313 days per year, and 225,360 tons/year.

Calculations did not include water or any other type of fugitive dust controls.

**Unit 2 Wind Erosion Fugitive Dust Emissions from roads, maintenance, disposal areas, and daily cover soil borrow area.**

Calculations assumed 365 days per year, 8760 hours per year, and assumed water dust controls in the areas where water can be applied.

**Unit 3 Landfill Gas Emissions, Non-Methane Organic Compounds which include VOCs and HAPs:**

Maximum landfill gas emissions assumed that no Gas Collection and Control System was in place and using 2018 LFG generation.

Fugitive LFG assumes that some LFG cannot be reasonably collected.

VOC emissions are calculated using AP-42 emission factor Table 2.4-2 where VOC content is 39% by weight of total NMOC.

HAPs emissions are calculated assuming 98% destruction efficiency of HAPs per Waste Industry Air Coalition Values although some HAPs have a higher destruction efficiency.

Added was a 1.5% safety factor to LFG generation.

H2S concentrations were measured at 1.3 ppmv but were calculated assuming 20 ppmv to account for possible changes in H2S concentrations.

**Landfill Gas Collection and Control System**

The GCCS capacity is designed to achieve a capacity of up to 3,000 cubic feet per minute (scfm) of landfill gas but may need to be increased at a later time. The maximum LFG generation rate was calculated at 3,113 scfm and is based on the projected maximum rate in year 2080. If required, the GCCS will be changed to increase its capacity.

**Co-located Four Peaks Energy, LLC facility**

There is a Landfill Gas to Energy Facility (LFGTE) located at the landfill, the Four Peaks Energy facility (#3275-M2). The Energy Facility includes two, 2242 horse power engines that combust the landfill gas as fuel for beneficial use to generate electric power. When operating the engines can accept about 550 cfm of landfill gas each, for a total of 1100 cfm. The Four Peaks Energy facility permit includes its own requirements to ensure that the landfill gas will be controlled regardless if it is routed to the landfill flare or to Four Peaks LFG treatment system before combustion.

**Unit 5 Flare Combustion Emissions:**

* Maximum flow rate of landfill gas is predicted to occur in year 2082 with a maximum landfill gas collection of 3,113 scfm.
* To be conservative, flaring emissions were determined assuming that 100% of all landfill gas will be collected and routed to the flare for combustion. However, a portion of LFG may not be realistically collected. Finally, LFG will also be routed to the Four Peaks Energy Facility.
* NSPS WWW requires no more the 500 ppm methane above background concentrations at the surface of the landfill and combustion of methane in an open flare meeting the requirements of 40 CFR 60.18. Meeting 60.18 is equivalent to a 98% destruction efficiency of VOCs and HAPs.
* SO2 emission rates were determined from AP42, Section 2.4.4

**Unit 4 Petroleum Contaminated Soils (PCS) Landfarm**

Hazardous air pollutant (HAP) emission limits were set to ensure that the facility remains a HAP minor source. A HAP major source would be one with potential emissions of at least 10 tpy a single HAP (e.g. hexane from decomposition of landfill material) and at least 25 tpy combined HAPs. Volatile Organic Compounds (VOCs) emission limits were set to equal the HAPs limit.

Only if PCS is ever accepted at the facility will records be required to ensure that the facility does not become a HAP major source. Without PCS, the landfill would never be close to HAP major source thresholds

**MACT AAAA –** Requirements in MACT AAAA are met by meeting the requirements in NSPS WWW. Once the landfill is subject to NSPS Cf, MACT AAAA is no longer supposed to apply. This is since NSPS Cf has SSM provisions. However, these regulations could be revised before the facility is subject to NSPS Cf, so requirements in Cf and AAAA need to be verified.