



July 1, 2020

Tim Fuhs  
Air Pollution Control District  
33433 Roberto Court  
San Luis Obispo, CA 93401

**RECEIVED**

**JUL 06 2020**

AIR POLLUTION CONTROL DISTRICT  
SAN LUIS OBISPO COUNTY

**Re: Title V Air Permit Renewal  
San Luis Obispo County PTO 547-8  
Chicago Grade Landfill  
San Luis Obispo County, California**

Dear Mr. Fuhs,

SLR International Corporation is submitting the attached Title V renewal application on behalf of the Chicago Grade Landfill located in Templeton, California. The current permit to operate (PTO) 547-8 is scheduled to expire on February 1, 2021. The renewal application includes the required San Luis Obispo Air Pollution Control District (SLO APCD) forms, a summary of all permit requirements, 2020 Tier II NMOC Generation Rate Report, 2020 Fill Plan, Site Life Projection, Original Permit, and a Compliance Certification.

#### **PROJECT BACKGROUND AND DISCUSSION**

The Chicago Grade Landfill is a Class III solid waste disposal facility (SIC 4953) offering recycling, used tire management, and commercial/industrial waste services. The site itself also contains a Household Hazardous Waste (HHW) facility that is neither owned nor operated by the Chicago Grade Landfill. This portion of the landfill is leased to the San Luis Obispo County Integrated Waste Management Authority (SLO IWMA) who contracts with Stericycle for operation. The site is equipped with a landfill gas collection and control system that includes an enclosed landfill gas flare. Other Chicago Grade Operations at the site that are not subject to federal permitting requirements include a portable tire shredder (SIC 5093) and a household hazardous waste facility (SIC 9511). The SLO APCD was issued a permit to operate (PTO) 547-8 for operation of the landfill and enclosed ground flare on September 30, 2016. The facility has operated under a SLO APCD permit since 1998.

The Chicago Grade Landfill has a current design capacity of 11.2 million cubic yards (8.6 million cubic meters) including both waste in place and future potential. Waste disposal activities are currently permitted to occupy 76.4 acres. The facility is located on 188 acres which includes buffer zones. The facility commenced construction, reconstruction, and/or modification on this expansion after July 17,

2014, so therefore becomes subject to 40 CFR Subpart XXX with this renewal. Currently, Chicago Grade Landfill is in the process of closing a section of the landfill (Rolling Closure Project - Phase 1). Modules 1, 2, 3, and 4 will be certified as closed when the project is complete in late Fall of 2020. There are currently no other planned rolling closures until the end of the site life. There are currently no disposal modules that have reached their planned final elevation and have closed. The most recent source test for the flare (completed on February 22, 2018) passed for the required destruction efficiencies for both VOCs and Methane. The facility's calculated non-methane organic compound (NMOC) emission rate from the landfill remains below the 40 CFR Subpart XXX 34 mega gram per year threshold allowing them to continue using Tier II methodology. This includes current (2020) and future projected potential through 2024. The most recent Tier II NMOC Generation Rate Report is included as Attachment C.

#### FACILITY USE TIMELINE

The Chicago Grade Landfill has designed their facility to utilize individual fill modules. The facility has initial modules that are no longer accepting waste, modules that are currently accepting waste, and future planned modules. The facility has an estimated site life projection of 2039. The site's updated 2020 Fill Plan and Site Life Projection are included as Attachment D.

Module 1/2 and 3/4 are no longer accepting waste and are in the rolling closure phase. Module 4 became full in May 2018. The site began filling Module 6B in June 2018 and is currently filling Module 6B and 6B-2. Chicago Grade landfill will begin clearing Module 6C in 2020 for use during the next five years. The Table below lists quantities of waste accepted over the last 5 years, as well as the quantities projected to be accepted over the next five years.

**Table 1**  
**Summary of Recent & Projected Waste Acceptance**

Year	Recent Annual Waste Acceptance (Tons)	Year	Projected Annual Waste Acceptance (Tons)
2015	96,482	2020	108,242
2016	105,387	2021	110,407
2017	104,479	2022	112,615
2018	95,924	2023	114,868
2019	94,702	2024	117,165

**DISCUSSION AND RECOMMENDATION**


SLR believes that this application is complete and satisfies all applicable requirements of SLO APCD. Feel free to contact me directly if you have any questions or concerns regarding this application. You can reach me by email at [NSerieys@SLRconsulting.com](mailto:NSerieys@SLRconsulting.com).

Sincerely,

**SLR International Corporation**



Nicolas Serieys, PE  
Managing Principal



Jackson Scott  
Project Scientist

- Enc. Attachment A: Application Forms  
Attachment B: Compliance Certification  
Attachment C: Tier II NMOC Generation Rate Report  
Attachment D: 2020 Fill Plan & Site Life Projection  
Attachment E: Original Permit (547-8)

## ATTACHMENT A

## APPLICATION FORMS





Air Pollution Control District  
San Luis Obispo County

3433 Roberto Court, San Luis Obispo, CA 93401  
Phone: (805) 781-5912 FAX: (805) 781-1002  
Email: permitapplications@slocleanair.org  
Website: www.slocleanair.org

## AUTHORITY to CONSTRUCT/PERMIT APPLICATION FORM

*(Application must be typewritten, computer generated, or hand printed in ink. Complete all pages of application.)*

**\$220 filing fee**     
  **Process form(s) must be attached**     
  **Signature on Application**

Applications are evaluated on a cost recovery basis – the filing fee will be applied as a credit to the final amount  
To pay by credit card, please contact us at (805) 781-5912.

1. Reason for Application:(Existing Permit #: 547-8 )

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Build/Install New Equipment   | <input checked="" type="checkbox"/> Permit to Operate Existing Unit | <input type="checkbox"/> Emission Reduction Credits |
| <input type="checkbox"/> Modify Authority to Construct | <input type="checkbox"/> Modify Permit or Conditions                | <input type="checkbox"/> Permit Exemption           |
| <input type="checkbox"/> Relocation of Equipment       |   |   |

2. Process Type: **(Complete and attach the appropriate process form for each device included in this application)**

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Abrasive Blasting     | <input type="checkbox"/> Fuel Combustion & Engines | <input type="checkbox"/> Organic Liquid Storage                    |
| <input type="checkbox"/> Mineral Processing    | <input type="checkbox"/> Gasoline Dispensing       | <input type="checkbox"/> Surface Coating                           |
| <input type="checkbox"/> Degreasing Operations | <input type="checkbox"/> Winery                    | <input checked="" type="checkbox"/> General (Describe in 7. below) |
| <input type="checkbox"/> Dry Cleaning          |  |  |

3. Facility Name: Chicago Grade Landfill

Facility **Street** Address: 2290 Homestead Road

City, State ZIP: Templeton, CA 93465

Assessor Parcel Number (APN)  
if known:

4. Owner/Operator:

Contact Person: Dannette Fieguth

Work: 805-466-2985 x 12

Company Name: Chicago Grade Landfill

FAX: \_\_\_\_\_

**Mailing** Address: 2290 Homestead Road

Cell: \_\_\_\_\_

City, State ZIP: Templeton, CA 93465

Email: dannette.fieguth@allosenv.com

5. Other Contacts **(If contact is not the same as owner, please attach the APCD Permit Contact form with the information):**

Facility Operations:                    same as owner      Inspections:                            same as owner

Billing:                                    same as owner      Emissions Inventory:                same as owner

(CONTINUED ON NEXT PAGE)

**(District Use Only)**

Date Received Stamp	APCD Application	Auth. to Construct	Permit to Operate
<div style="font-size: 2em; font-weight: bold; margin-bottom: 10px;">RECEIVED</div> <div style="font-size: 1.5em; font-weight: bold; margin-bottom: 10px;">JUL 06 2020</div> <div style="font-size: 0.8em; margin-bottom: 10px;">AIR POLLUTION CONTROL DISTRICT SAN LUIS OBISPO COUNTY</div> <div style="font-size: 1.2em; font-weight: bold; color: red; margin-bottom: 10px;">Paid 7/8/2020</div>	Number: <span style="color: red;">6998</span>	Issuance Date:	Issuance Date:
	Fee: <span style="color: red;">\$220.00</span>	Fee:	Fee:
	Check No.	Check No.	Check No.
	Receipt No. <span style="color: red;">3785136334</span>	Receipt No.	Receipt No.
	Ref. App. No.	Extended	Permit No.
Comments	SITE 0352		Previous No.

**SLO APCD PERMIT APPLICATION FORM (continued):**

6. Nature of Business or Agency: (Include SIC code if known.)

Class III solid waste disposal facility (SIC 4953) - Landfill

7. Description of Project and Process, or Explanation of Permit Modifications (Attach additional pages if needed):

Municipal solid waste landfill equipped with a landfill gas collection and control system routing to flare.

8. Project Status:

Start Date: \_\_\_\_\_ Completion Date: \_\_\_\_\_

9. Additional Questions:

a. Direction and straight line distance to nearest K-12 school: 13,000 feet School Name: San Benito Elementary S

b. Straight line distance to nearest residence: 1,500 feet

c. Straight line distance to nearest offsite workplace: 1,500 feet

d. Do you claim that any data submitted with this application is a trade secret?  Yes  No

e. Is this permit application a result of a district enforcement action?  Yes  No

f. Is this project subject to California Environmental Quality Act (CEQA) review?  Yes  No

g. If so, supply: Agency: \_\_\_\_\_ Contact: \_\_\_\_\_

h. Is the project approved by a city/county/other planning agency?  Yes  No

i. Are you subject to the California's Air Toxics Hot Spots Program?  Yes  No

j. Are you subject to a federal Part 70 permit? If so, attach appropriate Title V forms.  Yes  No

k. Are toxic air contaminants emitted? If so, include an emission estimate in terms of maximum and average pounds per hour and annual total. Also, include a screening or formal risk assessment. (The District will perform a screening assessment upon request.)  Yes  NO

I hereby certify that all information provided on this application, and its plans, attachments, and process forms, is true and correct. I agree to pay any and all fees required by District rules for processing this application and for issuance of any Authority to Construct or Permit to Operate. If I abandon this project and withdraw my application, or should my application be disapproved, I agree that the obligation exists to compensate the District for time spent processing my application.

10. SIGNATURE:

*D Fieguth*

12. DATE:

11. PRINT NAME:

Dannette Fieguth

12. ORGANIZATION:

Chicago Grade Landfill



# GENERAL PROCESS

**INSTRUCTIONS:** Fill in the required information as completely as possible. Additional forms may be needed. See the application form instructions for a list of additional forms. Failure to provide complete information may result in delays in processing your application or in your application being designated as "incomplete." **Complete a separate form for each process.**

Organization Name: Chicago Grade Landfill

**TYPE OF APPLICATION (select one):**

- |  |  |  |   |
|--|--|--|---|
| <input type="checkbox"/> chemical mfg        | <input type="checkbox"/> gasoline bulk plant | <input type="checkbox"/> paint mfg.                | <input type="checkbox"/> soap/detergent mfg.  |
| <input type="checkbox"/> electronic products | <input type="checkbox"/> medical diagnostics | <input type="checkbox"/> plating                   | <input type="checkbox"/> wastewater treatment |
| <input type="checkbox"/> ETO sterilizing     | <input type="checkbox"/> metal coating       | <input type="checkbox"/> printing                  | <input type="checkbox"/> winery               |
| <input type="checkbox"/> feed and grain      | <input type="checkbox"/> metal parts mfg     | <input checked="" type="checkbox"/> other landfill |   |

**EQUIPMENT DESCRIPTION (please be clear and concise - be sure to include a complete process flow diagram with your application):**

Municipal solid waste landfill equipped with a landfill gas collection and control system routed to an onsite enclosed ground flare.

**TYPE OF FUEL:**

- none     electric     gasoline     diesel     process gas     natural     fuel gas  
 other: \_\_\_\_\_ (complete a Fuel Combustion Process form for all combustion processes)

**TYPE OF MATERIAL PROCESSED (be sure to include a Material Safety Data Sheet (MSDS) for each material use in the process)**

Municipal solid waste.

**MAX PROCESS OR USE RATE:**

**PROCESS UNITS:**

500 \_\_\_\_\_  cfm     mgal/hr     gal/hr     yd<sup>3</sup>/hr     ton/hr     lb/hr     other tons/day

**HOURS OF OPERATION:**

**EMISSIONS:**

11 hr/day 358 day/yr     VOCs     ETO     particulates     gases     other: \_\_\_\_\_

**AIR POLLUTION CONTROL DEVICE**

(include the manufacturer's technical data sheet describing details of the control device and verifying the control efficiency):

device	control eff.	device	control eff.	device	control eff.	device:	control eff.
<input type="checkbox"/> none	_____ %	<input type="checkbox"/> baghouse	_____ %	<input type="checkbox"/> catalytic	_____ %	<input type="checkbox"/> water spray	_____ %
<input type="checkbox"/> dry filt.	_____ %	<input type="checkbox"/> carbon filt.	_____ %	<input type="checkbox"/> scrubber	_____ %	<input checked="" type="checkbox"/> other flare	98 %

**SUGGESTED EMISSIONS FACTOR COMMENTS:**

Values: See PTO 547-8 Conditions No. 1-12 and 2020 Tier II NMOC Generation Rate Calculations.

Reference: PTO 547-8

(include a copy of the reference and title page)

Provide any additional information that would be useful to the District in estimating emissions from your process or equipment. Failure to provide complete information may result in delays in the permitting process or in the assignment of your application as "incomplete."

(APCD use only)

Application No.	
-----------------	--

Facility: Chicago Grade Landfill

Submittal Date: \_\_\_\_\_

### San Luis Obispo County Air Pollution Control District Title V Applicable Requirements Form

This form must be submitted with any application for an initial Part 70 permit, reissuance of an existing Part 70 permit, and any minor or significant Part 70 permit modification. Applications for a permit modification need only supply such information that is related to the proposed change. If alternative operating scenario(s) are requested, items 3 and 4 below must be completed for each scenario and a clear distinction drawn as to which requirement applies to which scenario.

1. Please indicate the reason for this application.

- |   |  |
|---|--|
| <input type="checkbox"/> Minor Part 70 Modification | <input type="checkbox"/> Significant Part 70 Modification          |
| <input type="checkbox"/> Initial Part 70 Permit     | <input checked="" type="checkbox"/> Reissuance of a Part 70 Permit |

2. Total Facility Emissions. For an initial Part 70 permit, check one and supply the noted information. Fugitive emissions must be included in the same manner as stack emissions.

- a. I declare that this facility is a major source, as defined by District Rule 216, and I wish to use the District's most recent emissions inventory as the estimate of my emissions.
- b. I declare that this facility is not a major source, as defined by District Rule 216, and I wish to use the District's most recent emissions inventory as the estimate of my emissions.
- c. Attached is a table of this facility's emission unit and total emissions of each regulated air pollutant, in units of tons per calendar year (tpy).

3. Applicable Requirements With Emission Limitations. For each applicable requirement that includes an emission limitation, provide the following information. As appropriate, include the name of pollutant and units of measure. Attach additional lists/sheets as necessary.

- See attachment for the information requested below.
- a. Describe the applicable requirement and why it is applicable. \_\_\_\_\_
- b. The applicable requirement citation is \_\_\_\_\_ and emission limitation is: \_\_\_\_\_
- c. Emission unit(s) subject to the applicable requirement. \_\_\_\_\_
- d. Each emission unit(s) emission rate is \_\_\_\_\_ tpy of \_\_\_\_\_ (pollutant). In terms the applicable reference test method, each unit(s) emission rate is \_\_\_\_\_ and the test method is \_\_\_\_\_
- e. Example calculations and the information used to determine emissions, for example: fuels, fuel use, raw materials, production rates, and operating schedules. \_\_\_\_\_
- f. Describe the applicable air pollution control equipment, work practice standards, and constraints on source operations that limit emissions \_\_\_\_\_
- g. Other information required by the applicable requirement (including information related to stack height limitations) \_\_\_\_\_

4. Applicable Requirements Without Emission Limitations. For each applicable requirement that does not include an emission limitation, provide the following information. Attach additional lists/sheets as necessary.

- See attachment for the information requested below.



- a. Describe the applicable requirement and why it is applicable \_\_\_\_\_
- b. The applicable requirement citation is: \_\_\_\_\_
- c. Emission unit(s) subject to the applicable requirement: \_\_\_\_\_
- d. Other information required by the applicable requirement: \_\_\_\_\_

5. Proposed Exemption. Provide an explanation of any proposed exemptions from otherwise applicable requirements \_\_\_\_\_

See attachment for the requested information.

6. Insignificant Activities. For initial issuance or reissuance applications, provide a list of all emissions units that are designated insignificant activities because of size or production rate.

See attachment for the information requested below

a. Describe the equipment \_\_\_\_\_

b. Provide the basis for identification as an insignificant activity (Rule 201 citation): \_\_\_\_\_

7. I certify that, based on information and belief formed after reasonable inquiry, the statement and information in this document and supplements are true, accurate, and complete.

  
\_\_\_\_\_  
Signature of Responsible Official

\_\_\_\_\_  
Date

Facility: Chicago Grade Landfill

Submittal Date: \_\_\_\_\_

### San Luis Obispo County Air Pollution Control District Title V Compliance Plan and Certification Form

This form must be submitted with any application for an initial Part 70 permit, reissuance of an existing Part 70 permit, and for any minor or significant Part 70 permit modification. Applications for a permit modification need only supply such information that is related to the proposed change.

1. Applicable Requirements. For each applicable requirement, provide the following information. Attach additional lists/sheets as necessary.

See attachment for the information requested below

a. Identify the applicable requirement, its citation, and the emission unit to which it applies.

\_\_\_\_\_

b. Indicate compliance status:  Yes  future effective  no (*attach compliance schedule*)

c. Describe the methods to be used to determine compliance. Attach a Compliance Assurance Monitoring (CAM) plan in accordance with 40CFR64, if applicable.

1) monitoring: \_\_\_\_\_

2) recordkeeping: \_\_\_\_\_

3) reporting: \_\_\_\_\_

4) test methods: \_\_\_\_\_

d. Propose a schedule for compliance certification submission during the permit term (no less frequently than annually): \_\_\_\_\_

e. Describe the compliance status with any applicable enhanced monitoring and compliance certification requirements of §114(a)(3) of the Clean Air Act: \_\_\_\_\_

f. If this source is required to prepare a risk management plan pursuant to §112(r) of the Clean Air Act, indicate the date that it was submitted to the County Environmental Health Department or include a compliance schedule for the submittal of such a plan: \_\_\_\_\_

2. Compliance certification. Please check the applicable statements.

I certify that, based on information and belief formed after reasonable inquiry, the statement and information in this document and supplements are true, accurate, and complete; also,

a. If this application is for a minor Part 70 modification, that the modification meets the criteria for use of the minor Part 70 permit modification procedures; and that I have attached:

a suggested draft Part 70 permit that complies with the provisions of Rule 216.F;

b. This source will continue to comply with the applicable federal requirement(s) with which this source is in compliance as identified above or in the attachment;

c. This source will comply with the future-effective applicable federal requirement(s) as identified above or in the attachment, on a timely basis (*attach a compliance schedule for any requirement that includes a series of actions*);

d. This source is not in compliance with the applicable federal requirement(s), as identified above or in the attachment, and that I have attached:

a compliance plan schedule, and

a schedule for progress report submissions at no less than 6 month intervals.

*D. J. Regan*  
Signature of Responsible Official

\_\_\_\_\_  
Date

## **ATTACHMENT B**

## **COMPLIANCE CERTIFICATION**

Chicago Grade Landfill  
Title V Annual Compliance Certification Checklist  
CY 2019

	Applicable Requirement	Citation	Emission Unit	Compliance Status (Y/N) (continuous /intermittent)	Method	CAM Applicable (Y/N)	Certification Schedule	Enhanced Monitoring Compliance Status	Date of Risk Management Plan
1	Visible Emissions, Ringlemann No. 2 or 40%	Rule 401	Facility	Y continuous	Testing -EPA Method 22	N	Annual	N/A	N/A
2	Particulate Matter Emission Standards, 0.12 lb/MMBtu	Rule 403.C.1	Flare	Y continuous	Operating Parameters	N	Annual	N/A	N/A
3	Sulfur Compound Emission Standards, 0.2% by volume SO2	Rule 404.A	Flare	Y continuous	Operating Parameters	N	Annual	N/A	N/A
4	Sulfur Compound Emission Standards, 50 gr/100 sci total sulfur as H2S	Rule 404.E.1	Flare	Y continuous	Operating Parameters	N	Annual	N/A	N/A
5	Carbon Monoxide Emission Standards, 2,000 ppmv	Rule 406.A	Flare	Y continuous	Calculated	N	Annual	N/A	N/A
6	Volatile Organic Compound Emission Limit, 98% destruction or 30 ppm as methane @ 3%O2	PTO 547-5, Cond. No. 7	Flare	Y continuous	Testing	N	Annual	N/A	N/A
7	Nitrogen Oxide Emission Limit, 0.06 lb/MMBtu	PTO 547-5, Cond. No. 8	Flare	Y continuous	Testing	N	Annual	N/A	N/A
8	Carbon Monoxide Emission Limit, 0.2 lb/MMBtu	PTO 547-5, Cond. No. 9	Flare	Y continuous	Testing	N	Annual	N/A	N/A
9	Visible Emissions Limit, Ringlemann No. 1 or 20%	PTO 547-5, Cond. No. 10	Flare	Y continuous	Testing	N	Annual	N/A	N/A
10	Component and Surface Leak Limit, 1,000 ppmv total organic compounds as methane	PTO 547-5, Cond. No. 5	Landfill and GCCS	Y continuous	Measured	N	Annual	N/A	N/A
11	Nitrogen Oxide Emission Limit, 600 ppmv dry at 15% O2	PTO 648-5, Cond. No. 3	Shredder Engine	Y continuous	Testing	N	Annual	N/A	N/A
12	Carbon Monoxide Emission Limit, 4,500 PPMv dry at 15% O2	PTO 648-5, Cond. No. 4	Shredder Engine	Y continuous	Testing	N	Annual	N/A	N/A
13	Visible Emissions Limit, Ringlemann No. 1/4 or 5%	PTO 648-5, Cond. No. 7	Shredder Engine	Y continuous	Test EPA Method 22	N	Annual	N/A	N/A
14	Visible Emissions Limit, 20%	PTO 648-5, Cond. No. 8	Shredder Engine	Y continuous	Test EPA Method 22	N	Annual	N/A	N/A
15	Landfill Gas Emissions	Rule 426	Landfill	Y continuous	Calculated	N	Annual	N/A	N/A
16	The owner shall update the emissions quantification plan and/or VOC emissions estimate at a future date as determined by the APCO.								
17	Maintain a map indicating the location and date of cover placement for each area with intermediate and final cover.	Rule 426.D.5	Landfill	Y continuous	Recordkeeping	N	Annual	N/A	N/A
18	Maintain records of results of all perimeter well testing	Rule 426.H.1.a	Landfill	Y continuous	Recordkeeping	N	Annual	N/A	N/A
19	Maintain records of the results of all methane or VOC emission tests including offsite migration tests, perimeter well tests, and surface cover tests.	Rule 426.H.1.b	Landfill	Y continuous	Recordkeeping	N	Annual	N/A	N/A
20	Maintain annual records of the tonnage of refuse accepted for the prior year.	Rule 426.H.1.c	Landfill	Y continuous	Recordkeeping	N	Annual	N/A	N/A
20	Maintain annual records of the tonnage of refuse accepted for the prior year.	Rule 426.H.1.d	Landfill	Y continuous	Recordkeeping	N	Annual	N/A	N/A



Chicago Grade Landfill  
Title V Annual Compliance Certification Checklist  
CY 2019

21	The owner of any solid waste disposal site subject to the requirements of this Rule shall submit an application for an Authority to Construct no later than 90 days after determination that the disposal site is emitting more than fifteen (15) tons per year VOCs.	Rule 426.i.1.	Landfill	Y continuous	Recordkeeping	N	Annual	N/A	N/A
22	Records required by Section H shall be maintained for a period of two years from the date of each entry and shall be made available to the District upon request emitting more than fifteen (15) tons per year of VOCs.	Rule 426.i.5	Landfill	Y continuous	Recordkeeping	N	Annual	N/A	N/A
23	The provisions of this subpart apply to each municipal solid waste landfill that commenced construction, reconstruction or modification on or after May 30, 1991.	40 CFR 60.75 O a	Landfill	Y continuous	Recordkeeping	N	Annual	N/A	N/A
24	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 either comply with paragraph (b)(2) of this section or calculate NMOC emission rate for the landfill using the procedures specified in 60. 754. The NMOC emission rate shall be recalculated annually, except as provided in 40 CFR 60.75 60. 757(b)(1 )(ii) of this subpart.	40 CFR 60.75 2(b)	Landfill	Y continuous	Calculated	N	Annual	N/A	N/A
25	The owner or operator of a MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters, becomes subject to the requirements or becomes subject to the requirements of 40 CFR 70.5(a)(1)(i) or 71.5(a)(1)(i) on June 10, 2006 or MSW landfills that commenced construction, modification, or reconstruction on or after May 30, 1991 but before March 12, 1996.	40 CFR 60.75 2 (c)(1)	Landfill	Y continuous	Recordkeeping	N	Annual	N/A	N/A
26	Tier 2. The landfill owner or operator shall determine the NMOC concentration using the following sampling procedure:	40 CFR 60.75 4(1)(3)	Landfill	Y continuous	Monitoring, Calculated	N	Annual	N/A	N/A
27	The landfill owner or operator shall recalculate the NMOC mass emission rate using the equations provided in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using the average NMOC concentration from the 40 CFR 60.75 collected samples.	40 CFR 60.75 4(1)(3)(i)	Landfill	Y continuous	Monitoring, Calculated	N	Annual	N/A	N/A

Chicago Grade Landfill  
Title V Annual Compliance Certification Checklist  
CY 2019

28	If the resulting mass emission rate calculated using the site-specific NMOC concentration is equal to or greater than 50 megagrams per year, then the landfill owner or operator shall either comply with 60.752(b)(2), or determine the site-methane generation rate constant a recalculate the NMOC emission rate.	40 CFR 60.75 4(1)(3)(iii)	Landfill	Y continuous	Recordkeeping	N	Annual	N/A	N/A
29	Each owner or operator subject to the requirements of this subpart shall submit an initial design capacity report to the Administrator.	40 CFR 60.75 7(a)	Landfill	Y continuous	Recordkeeping	N	Annual	N/A	N/A
30	Each owner or operator subject to the requirements of this subpart shall submit an NMOC emission rate report to the Administrator initially and annually thereafter, except as provided for in paragraphs (b)(1)(ii) or (b)(3) of this section.	40 CFR 60.75 7(b)	Landfill	Y intermittent*	Reporting	N	Annual	N/A	N/A
31	Each owner or operator subject to the provisions of 60.752(b)(2)(i) shall submit a collection and control system design plan to the Administrator within 1 year of the first report required under paragraph (b) of this section in which the emission rate exceeds 50 megagrams per year.	40 CFR 60.75 7(c)	Landfill	Y continuous	Recordkeeping, Reporting	N	Annual	N/A	N/A
32	Each owner or operator of a controlled landfill shall submit a closure report to Administrator within 30 days of waste acceptance cessation.	40 CFR 60.75 7(d)	Landfill	Y continuous	Recordkeeping	N	Annual	N/A	N/A
33	Each owner or operator of a controlled landfill shall submit an equipment removal report to the Administrator 30 days prior to removal or cessation of operation of the control equipment.	40 CFR 60.75 7(e)	Landfill	Y continuous	Reporting	N	Annual	N/A	N/A
34	Each owner or operator of an MSW landfill subject to the provisions of 60.752(b) shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered 60.752(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate.	40 CFR 60.75 8(a)	Landfill	Y continuous	Recordkeeping	N	Annual	N/A	N/A
35	Standard conditions are a gas temperature of 60 degrees Fahrenheit and a gas pressure of 14.7 pounds per square inch absolute. Results of all analyses and tests shall be calculated or reported at this gas temperature and pressure.	SIP Rule 106	Facility	Y continuous	Recordkeeping, Calculated	N	Annual	N/A	N/A
36	Visible emissions shall not exceed Ringlemann No. 2 or forty percent (40%) opacity for a period exceeding three minutes aggregated in any sixty minute period of time.	SIP Rule 401	Facility	Y continuous	Test EPA Method 22	N	Annual	N/A	N/A

Chicago Grade Landfill  
Title V Annual Compliance Certification Checklist  
CY 2019

37	A person shall not discharge from any source whatsoever such quantities of contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons of the public, or which endanger the comfort, repose, health or safety or the public, or which cause, or have a natural tendency to cause injury or damage to business or property.	SIP Rule 402	Facility	Y continuous	Operating Parameters	N	Annual	N/A	N/A
38	Authority to Construct: Any person building, erecting, altering or replacing any article, machine, equipment or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate or reduce or control the issuance of air contaminants, shall first obtain authorization for such construction from the Air Pollution Control Officer.	Rule 202.A.1	Facility	Y continuous	Recordkeeping, Reporting	N	Annual	N/A	N/A
39	Permits to Operate: Before any article, machine, equipment or other contrivance, the use of which may cause, increase, eliminate, reduce or control the issuance of air contaminants may be operated or used, a Permit to Operate shall be obtained from the Control Officer	Rule 202.A.2	Facility	Y continuous	Recordkeeping, Reporting	N	Annual	N/A	N/A
40	A person who employs solvent metal cleaning (degreasing) shall utilize a device for such cleaning that conforms to the requirements in Section B.1 to B.6 of the Rule.	Rule 416.B	Facility	Y continuous	Operating Parameters	N	Annual	N/A	N/A
41	A person who employs solvent metal cleaning (degreasing) must conform to Section C.1 to C.11 of the Rule.	Rule 416.C	Facility	Y continuous	Operating Parameters	N	Annual	N/A	N/A
42	Submit, revise reports, or report source test results as required by Subpart M.	40 CFR 61.05 (d)	Facility	Y continuous	Testing, Reporting	N	Annual	N/A	N/A
43	Ensure that any change to the information provided in the initial notification under 40 CFR 61.10 a. is submitted to the APCO no later than 30 days after that change.	40 CFR 61.10 (c)	Facility	Y continuous	Reporting	N	Annual	N/A	N/A
44	Ensure that the landfill shall be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions	40 CFR 61.12 (c)	Facility	Y continuous	Operating Parameters	N	Annual	N/A	N/A
45	Ensure that regulated asbestos containing material workers are adequately trained in accordance with 40 CFR 60.145(c)(5)(c)(8).	40 CFR 61.14 (5)(c)(8)	Facility	Y continuous	Operating Parameters	N	Annual	N/A	N/A

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46	At least forty-five calendar days prior to excavating or otherwise disturbing any asbestos-containing materials, Chicago Grade Landfill shall submit a report to the APCO in writing.	40 CFR 61.15 (1)(d)	Facility	Y continuous	Reporting	N	Annual	N/A	N/A
47	The facility shall comply with all applicable provisions of Rule 422, Architectural Coatings.	Rule 433	Facility	Y continuous	Operating Parameters	N	Annual	N/A	N/A
48	The facility shall comply with all applicable provisions of Rule 216, Federal Part 70 Permits.	Rule 216	Facility	Y continuous	Recordkeeping, Reporting	N	Annual	N/A	N/A
49	Metal Surface Coatings	Rule 407.H.2	Facility	Y continuous	Operating Parameters	N	Annual	N/A	N/A
50	Architectural Coatings	Rule 407.H.3	Facility	Y continuous	Operating Parameters	N	Annual	N/A	N/A
51	Photochemically Reactive Solvent Evaporation	Rule 407.H.4	Facility	Y continuous	Operating Parameters	N	Annual	N/A	N/A
52	Air Toxic Hot Spots	Rule 204.F.1	Facility	Y continuous	Operating Parameters	N	Annual	N/A	N/A
53	Abrasive Blasting	CCR 92000	Facility	Y continuous	Operating Parameters	N	Annual	N/A	N/A
54	Operation/Maintenance Requirements	40 CFR 60.11 (d)	Facility	Y continuous	Operating Parameters	N	Annual	N/A	N/A
55	Process Change Notification of APCD	Rule 202	Facility	Y continuous	Reporting	N	Annual	N/A	N/A
56	Cold Solvent Metal Cleaning Devices	Rule 416	Facility	Y continuous	Operating Parameters	N	Annual	N/A	N/A
57	Outdoor Fire Limitation	Rule 501.A	Facility	Y continuous	Operating Parameters	N	Annual	N/A	N/A
58	State Certification of Portable Equipment	SIP Rule 205	Facility	Y continuous	Recordkeeping	N	Annual	N/A	N/A
59	Architectural Coatings	Rule 433	Facility	Y continuous	Operating Parameters	N	Annual	N/A	N/A
60	Within a reasonable time period, Chicago Grade Landfill shall furnish any information requested by the APCO regarding compliance with permit.	Rule 216.F.1.j.2	Facility	Y continuous	Reporting	N	Annual	N/A	N/A
61	Within a reasonable time period, Chicago Grade Landfill shall furnish any information requested by the APCO regarding air contaminant emissions.	SIP Rule 205	Facility	Y continuous	Reporting	N	Annual	N/A	N/A
62	Within a reasonable time period, Chicago Grade Landfill shall furnish any information requested by the APCO whether or not cause exists to modify, revoke, reissue, or terminate this permit.	Rule 216.F.1.j.1	Facility	Y continuous	Reporting	N	Annual	N/A	N/A
63	Within a reasonable time period, Chicago Grade Landfill shall furnish any information requested by the APCO whether or not cause exists for an enforcement action.	Rule 216.F.1.j.2	Facility	Y continuous	Reporting	N	Annual	N/A	N/A



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64	If Chicago Grade Landfill is not in compliance with any federally-enforceable requirement, they shall submit to the APCO a schedule of compliance, which has approved by the Hearing Board.	Rule 216.F.2.c	Facility	Y continuous	Reporting	N	Annual	N/A	N/A
65	This permit, or a true copy, shall be made readily accessible at Chicago Grade Landfill's landfill office and shall not be altered or defaced in any way,	SIP Rule 201 E&F	Facility	Y continuous	Recordkeeping	N	Annual	N/A	N/A
66	Emergency Provisions	Rule 107	Facility	Y continuous	Operating Parameters	N	Annual	N/A	N/A
67	Right of Entry	Rule 216.F.2.a	Facility	Y continuous	Operating Parameters	N	Annual	N/A	N/A
68	Chicago Grade Landfill shall not build, install, or use, any article, machine, equipment, or process subject to an applicable standard, if the use of which conceals and emission that would otherwise constitute a violation of that standard.	40 CFR 61.12 and 40 CFR 61.19	Facility	Y continuous	Operating Parameters	N	Annual	N/A	N/A
69	Permit Life	Rule 216.I.1, I.2 & I.4	Facility	Y continuous	Recordkeeping, Reporting	N	Annual	N/A	N/A
70	Payment of Fees	Rule 216.F.1.k	Facility	Y continuous	Recordkeeping, Reporting	N	Annual	N/A	N/A
71	Specific Recordkeeping, Inspection and Reporting Requirements	Rule 206 and Rule 216.F.1	Facility	Y continuous	Recordkeeping, Reporting	N	Annual	N/A	N/A
72	All testing shall be conducted in accordance with the District's Source Test Policy	Rule 210.B.1	Facility	Y continuous	Testing	N	Annual	N/A	N/A
73	A record of compliance testing shall be maintained.	216.F.1.c.3	Facility	Y continuous	Recordkeeping	N	Annual	N/A	N/A
74	The landfill gas collection and flare system shall be operated as described in the applications submitted for PTO No. 547-5, and the Operation and Maintenance Plan dated January 12, 1999, unless otherwise specified.	PTO 547-5, Cond. No. 1	GCCS	Y continuous	Operating Parameters	N	Annual	N/A	N/A
75	If the APCO determines that the operation of this equipment is causing a public nuisance, the owner/operator shall take immediate action and eliminate the nuisance.	PTO 547-5, Cond. No. 2, PTO 648-5, Cond. No. 17	GCCS, shredder and associated equipment	Y continuous	Operating Parameters	N	Annual	N/A	N/A
76	The APCO shall be notified in writing before any changes are made to operating procedures, equipment, or materials used which have the potential to increase the emission of any air contaminant.	PTO 547-5, Cond. No. 3, PTO No. 648-5, Cond. No. 18	GCCS, shredder and associated equipment	Y continuous	Reporting	N	Annual	N/A	N/A
77	The APCO, at any time, may require from Chicago Grade Landfill such information, analysis, plans, or specifications which will disclose the nature, extent, quantity, or degree of air contaminants which are, or may be, discharged by the source for which this permit was issued.	PTO 547-5, Cond. No. 4	GCCS	Y continuous	Reporting	N	Annual	N/A	N/A

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78	Leak Requirements: The owner shall maintain, monitor, operate, and improve the GCCS and landfill cover to prevent leaks; all leaks shall be conspicuously tagged with a marker which displays the date of leak detection; Leaks shall be repaired to a leak-free state.	PTO 547-5, Cond. No. 6	Landfill and GCCS	Y continuous	Monitoring	N	Annual	N/A	N/A
79	The Caterpillar 3306BDITA Engine shall not be operated unless the particulate filter system is installed and operating correctly.	PTO 648-5, Cond. No. 1	Shredder Engine	Y continuous	Operating Parameters	N	Annual	N/A	N/A
80	No More than 76.4 gallons of diesel fuel per operating-day calculated on a monthly average basis shall be combusted in the Caterpillar engine. Compliance shall be determined by dividing the total fuel used in any given calendar month by the number of tire shredding days during that same month.	PTO 648-5, Cond. No. 2	Shredder Engine	Y continuous	Operating Parameters	N	Annual	N/A	N/A
81	The sulfur content of the diesel fuel used shall not exceed 0.05% by weight.	PTO 648-5, Cond. No. 5	Shredder Engine	Y continuous	Operating Parameters	N	Annual	N/A	N/A
82	The engine shall have a non-resettable run-time hour meter installed and maintained in good operating condition in accordance with the manufacturer's recommendations.	PTO 648-5, Cond. No. 6	Shredder Engine	Y continuous	Operating Parameters	N	Annual	N/A	N/A
83	Water shall be used as necessary to minimize fugitive dust from the tire shredder and material handling equipment.	PTO 648-5, Cond. No. 9	Shredder Engine	Y continuous	Operating Parameters	N	Annual	N/A	N/A
84	Chicago Grade Landfill shall implement an Air Pollution Control Officer-approved engine operations inspection plan to ensure that the engine is operated in compliance with the applicable emission limits. The plan shall include:	PTO 648-5, Cond. No. 10	Shredder Engine	Y continuous	Recordkeeping, Monitoring	N	Annual	N/A	N/A
85	a) An inspection frequency of no less than every calendar quarter or every 2,000 hours of operation, whichever occurs first. In no event shall the frequency of inspection be less than once per year.	PTO 648-5 Cond. No. 10.a	Shredder Engine	Y continuous	Monitoring	N	Annual	N/A	N/A
86	b) A description of the preventive and corrective maintenance procedures and practices that will be used to maintain the engine.	PTO 648-5 Cond. No. 10.b	Shredder Engine	Y continuous	Operating Parameters	N	Annual	N/A	N/A
87	The diesel particulate filter system (DPF) shall be operated as specified by the manufacturer.	PTO 648-5 Cond. No. 11	Shredder Engine	Y continuous	Operating Parameters	N	Annual	N/A	N/A
88	The operator is responsible for regularly monitoring the operations of the DPF and servicing the DPF as appropriate to maintain effective emission control of the engine exhaust diesel particulate matter.	PTO 648-5 Cond. No. 12	Shredder Engine	Y continuous	Monitoring	N	Annual	N/A	N/A

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89	A calendar monthly record shall be maintained for the engine that includes following data. The operator shall maintain that log for a period of at least three years after the date of each entry and shall make that log available for the District's inspection upon request.	PTO 648-5 Cond. No. 13	Shredder Engine	Y continuous	Monitoring, Recordkeeping	N	Annual	N/A	N/A
90	a) Date and results of each engine inspection.	PTO 648-5 Cond. No. 13.a	Shredder Engine	Y continuous	Monitoring, Recordkeeping	N	Annual	N/A	N/A
91	b) A summary of any preventative or corrective maintenance taken.	PTO 648-5 Cond. No. 13.b	Shredder Engine	Y continuous	Monitoring, Recordkeeping	N	Annual	N/A	N/A
92	c) The engine hours of operation, tire shredder operating days and fuel usage for the month of record.	PTO 648-5 Cond. No. 13.c	Shredder Engine	Y continuous	Operating Parameters, Recordkeeping	N	Annual	N/A	N/A
93	d) Average calendar month operating day fuel usage (fuel usage/number of operating days).	PTO 648-5 Cond. No. 13.d	Shredder Engine	Y continuous	Monitoring, Recordkeeping	N	Annual	N/A	N/A
94	e) The cumulative total hours of engine operation since the last inspection pursuant to condition 10.a and since the last compliance test under Condition 13.	PTO 648-5 Cond. No. 13.e	Shredder Engine	Y continuous	Monitoring, Recordkeeping	N	Annual	N/A	N/A
95	f) Engine exhaust pressure and temperature data in sufficient quantity to show diesel particulate filter regeneration events at regular intervals in accordance with Condition 12.	PTO 648-5 Cond. No. 13.f	Shredder Engine	Y continuous	Operating Parameters, Recordkeeping	N	Annual	N/A	N/A
96	g) Diesel particulate filter manual cleaning or replacement event date.	PTO 648-5 Cond. No. 13.g	Shredder Engine	Y continuous	Operating Parameters, Recordkeeping	N	Annual	N/A	N/A
97	h) Any additional information required in the Engine Operator Inspection Plan as defined in District Rule 431.E of the same title.	PTO 648-5 Cond. No. 13.h	Shredder Engine	Y continuous	Operating Parameters	N	Annual	N/A	N/A
98	Every 8,760 hours of operation, not exceed three (3) years between tests, Chicago Grade Landfill shall conduct, or cause to be conducted, a compliance test to determine the exhaust emissions of Nox, CO and O2 using ARB Method 100. A source test plan shall be submitted to the APCO at least 30 days prior to the test in accordance with the current version of the District's Source Test Policy.	PTO 648-5 Cond. No. 14	Shredder Engine	Y continuous	Testing	N	Annual	N/A	N/A

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CY 2019

99	The total fuel usage, operating hours, and operating days for the previous calendar year shall be reported to the APCO before February 28 of each year. This requirement may be met through the annual emissions inventory submittal so long as the above data are included.	PTO 648-5 Cond. No. 15	Shredder and Associated Equipment	Y continuous	Recordkeeping, Reporting	N	Annual	N/A	N/A
100	This equipment shall be operated and maintained in accordance with the manufacturer's recommendations and the information presented in the application under which PTO No. 648-5 was granted.	PTO 648-5 Cond. No. 16	Shredder and Associated Equipment	Y continuous	Operating Parameters	N	Annual	N/A	N/A
101	All information needed to estimate air pollution emissions shall be provided to the District upon request. This information may consist of, but is not limited to: throughput data, process variables, device characteristics, and pollutant release characteristics.	PTO 648-5 Cond. No. 19	Shredder and Associated Equipment	Y continuous	Recordkeeping	N	Annual	N/A	N/A
102	PTO No. 648-5 is not transferable to a new owner or location without the APCO's approval. A change of ownership application shall be submitted to the APCO at least ten (10) working days prior to any change in the person or agency that is responsible for the operation of the equipment described in PTO No. 648-5. An authority to construct application must be submitted and approved by the APCO prior to moving the permitted equipment to a new location that is not within the boundaries of the Chicago Grade Landfill.	PTO 648-5 Cond. No. 20	Shredder and Associated Equipment	Y continuous	Recordkeeping, Reporting	N	Annual	N/A	N/A

\* Chicago Grade Landfill elected to fulfill this reporting requirement for a five year period covering 2014 to 2019 using a single NMOC study prepared in 2015 per 40 CFR 60.757(b)(ii). In Reporting Years 2017, 2018, and 2019 the waste acceptance rates were greater than that used in the 2015 study, making it necessary to provide a revised estimate of NMOC generation based on actual waste acceptance data through 2017, 2018, and 2019 and a projected waste acceptance over the next five years in keeping with business expectations, 250,000 tons per year. The facility is in the process of preparing a new 2020 Tier 2 NMOC Study to be submitted with the 2020 Title V Renewal which will maintain continuous compliance.



## ATTACHMENT C

### TIER II NMOC GENERATION RATE REPORT

# 2020 TIER II NMOC GENERATION RATE

**PREPARED FOR:**

CHICAGO GRADE LANDFILL

2290 HOMESTEAD RD.

TEMPLETON, CALIFORNIA

June 2020

SLR



## 2020 TIER II NMOC GENERATION RATE

Prepared for:

**PREPARED FOR:**

**CHICAGO GRADE LANDFILL**

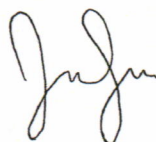
2290 Homestead Rd.  
Templeton, CA 93465

This document has been prepared by SLR International Corporation. The material and data in this report were prepared under the supervision and direction of the undersigned.



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Nicolas Serieys, PE  
Managing Principal



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Jackson Scott  
Project Scientist

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Table 1	Summary of 5-Year NMOC Generation Rates
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## APPENDICES

Appendix A	Analytical Results
Appendix B	NMOC Calculations



## 1. INTRODUCTION

Chicago Grade landfill owns and operates the Chicago Grade Landfill (CGL). The CGL contracted SLR International Corporation (SLR) to prepare a Tier 2-equivalent non-methane organic compound (NMOC) emission report for the CGL, located at 2290 Homestead Road, Templeton, California. The Landfill is a Class III sanitary landfill that accepts municipal solid waste (MSW) from the City of Atascadero and surrounding areas.

The CGL has a design capacity that exceeds the 2.5 million cubic meter (2.5 million megagram (Mg)) threshold specified in 40 Code of Federal Regulations (CFR) Part 60, the New Source Performance Standards (NSPS) Subpart XXX/Emission Guidelines (EG), Subpart Cf. To be subject to all of the conditions of the standards, the generation rate of non-methane organic compounds (NMOCs) must also exceed the 34 Mg per year (Mg/yr) threshold. The purpose of this report is to present the NMOC emission estimates for the CGL and to demonstrate that the NMOC generation rate is less than the threshold.

## 2. SAMPLING PROGRAM

One landfill gas (LFG) sample was collected from the main header by Aeros Environmental, Inc. (Aeros) during the most recent flare source test conducted on February 22, 2018. The San Luis Obispo County Air Pollution Control District (SLO APCD) requires source testing of the flare every three years. The sample line was purged with sample gas prior to sampling. The sample was analyzed within the method holding times. The sample was analyzed for total gaseous nonmethane organic compounds as measured by ASTM Method D-1945 by Aeros. The laboratory report is contained in Appendix A. This data was used for the NMOC generation rate calculation.

### 3. NMOC CONCENTRATION AND GENERATION RATE CALCULATIONS

NMOC emissions have been calculated using the results of the laboratory analytical results and the amount of waste in the landfill.

#### 3.1 ANALYTICAL RESULTS

The laboratory results for the LFG analysis were presented in the certified analytical report as total NMOC, parts per million by volume (ppmv) as methane. The average value of the NMOC concentration in the LFG was 1284.7 ppmv as methane. To convert total NMOC ppmv as carbon to total NMOC ppmv as hexane (for use in the generation rate calculation), the final result was multiplied by the ratio of the molecular weight of methane to hexane, 0.186047 (16/86). The average value of NMOC concentration in the LFG is, therefore, 239.0 ppmv as hexane. This value has been used to calculate the NMOC generation rate of the CGL.

#### 3.2 NMOC GENERATION RATE

The year 2020 NMOC generation rate was estimated using the site-specific NMOC concentration and acceptance rate projections for the landfill. The calculation used emissions estimating equation §60.764(a)(1) shown in Appendix B. The k value (exponential decay factor) of 0.02 provided by the EPA for arid areas (<25 inches precipitation per year) and the default methane generation ( $L_0$ ) value of 170 cubic meters of methane per megagram (Mg) of waste in place were specified.

Using the measured NMOC concentration and annual refuse acceptance rate, the estimated 2020 NMOC generation rate was calculated to be 8.3 Mg.

#### 3.3 PROJECTION OF NMOC GENERATION RATES

The results indicate that the NMOC generation rate for the year 2020 is below the regulatory compliance limit of 34 Mg/yr specified in the NSPS/EG. In accordance with the requirements within 40 CFR 60.764 (a)(3)(iii), the owner or operator can continue reevaluating the site-specific NMOC concentration every 5 years using the methods specified in 60.764 (a)(3) unless the projected generation rate exceeds 34 Mg/yr.

A 5-year projection of NMOC generation rate is presented in Table 1 and indicates no exceedance of the 34 Mg/yr threshold through 2024. Future waste acceptance through 2024 presented in Table 1 has been estimated based on Chicago Grade Landfill projections. Actual waste acceptance and therefore NMOC emissions may be less than the calculated values. The NMOC emissions calculations performed according to the calculation method presented in 40 CFR 60.764 is included in Appendix B.



**Table 1**  
**Summary of 5-Year NMOC Generation Rates**

Year	Projected Annual Waste Acceptance (Mg)	Total Waste in Place (Mg)	NMOC Generation Rate (Mg/yr)
2020	98,196	1,975,353	8.3
2021	100,160	2,075,512	8.7
2022	102,163	2,177,675	9.1
2023	104,207	2,281,881	9.5
2024	106,290	2,388,172	9.9

The generation rate of NMOC is projected to remain below 34 Mg/yr through at least 2024. In 2025, the NMOC generation rate will be re-calculated using the 2024 triennial flare source test. Emissions based on the most recent LFG analysis will continue to be calculated on an annual basis.

## 4. CLOSING

This report is intended for the use of the Chicago Grade Landfill only. Our services have been performed under mutually agreed upon terms and conditions. If other parties wish to rely on this report, please have them contact us so that a mutual understanding and agreement of the terms and conditions for our services can be established prior to their use of this information.

Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental, health and safety consultants practicing in this or similar localities at the time of service. No other warranty, express or implied, is made as to the professional advice included in this report.

The opinions, findings and recommendations contained herein are based upon the data that were reviewed and documented in this report along with our experience on similar projects. They are relevant to the dates of our site work and should not be relied upon to represent conditions at later dates. If additional information becomes available that might affect our conclusions, we request the opportunity to review the information, reassess the potential concerns, and modify our opinion, if warranted. The material and data in this report were prepared and reviewed by the undersigned.

### SLR International Corporation



Nicolas Serieys, PE  
Managing Principal



Jackson Scott  
Project Scientist

## APPENDIX A

## ANALYTICAL RESULTS

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Chicago Grade Landfill, Inc.  
 Homestead Road Facility  
 4.9 MMBtu/hr John Zink Flare

Project 087-1390  
 February 22, 2018

ASTM Method D-1945  
 Hydrocarbon Results at Landfill Gas Inlet to Flare  
 Reported as Methane (C<sub>1</sub>) @ 60° F

Units of Measurement	C <sub>1</sub> Methane	C <sub>2</sub> Ethane(s)	C <sub>3</sub> Propane(s)	C <sub>4</sub> Butane(s)	C <sub>5</sub> Pentane(s)	C <sub>6</sub> + Hexane(s)	Total	Total C <sub>2</sub> -C <sub>6</sub> +	Total C <sub>3</sub> -C <sub>6</sub> +
ppm	326560.0	31.3	4.8	7.9	4.7	202.6	326811	251.2	219.9
ppm as C <sub>1</sub>	326560.0	62.6	14.3	31.5	23.5	1215.5	327907	1347.3	1284.7
lb/hr	205.250	0.039	0.009	0.020	0.015	0.764	206.097	0.847	0.807

Supporting Data

Fuel, scfm	Average Runs 1-3
	248

## APPENDIX B

### NMOC CALCULATIONS



Chicago Grade Landfill  
 Non-Methane Organic Compound Emission Calculations

$L_0 = 170$  Methane generation potential (m<sup>3</sup>/Mg of solid waste)  
 $C_{\text{NMOC}} = 239$  Concentration of NMOCs (ppmv as hexane - site-specific laboratory)  
 $k = 0.02$  Methane generation rate constant (yr<sup>-1</sup>)  
 $\text{Mg / Ton} = 0.907185$  Megagrams per Ton  
 $M_{\text{NMOC}} = 2 \times k \times L_0 \times M_{i,x} (e^{\lambda(-kt)}) \times (\text{CNMOC}) \times (3.6 \times 10^9)$

Year	Waste Accepted		2020		2021		2022		2023		2024	
	Tons	Mg	Waste Age	NMOC	Waste Age	NMOC	Waste Age	NMOC	Waste Age	NMOC	Waste Age	NMOC
1976	10,026	9,095	44	0.02	45	0.02	46	0.02	47	0.02	48	0.02
1977	12,614	11,443	43	0.03	44	0.03	45	0.03	46	0.03	47	0.03
1978	13,586	12,325	42	0.03	43	0.03	44	0.03	45	0.03	46	0.03
1979	9,428	8,553	41	0.02	42	0.02	43	0.02	44	0.02	45	0.02
1980	13,226	11,998	40	0.03	41	0.03	42	0.03	43	0.03	44	0.03
1981	18,080	16,402	39	0.04	40	0.04	41	0.04	42	0.04	43	0.04
1982	19,390	17,590	38	0.05	39	0.05	40	0.05	41	0.05	42	0.04
1983	22,260	20,194	37	0.06	38	0.06	39	0.05	40	0.05	41	0.05
1984	24,975	22,657	36	0.06	37	0.06	38	0.06	39	0.06	40	0.06
1985	26,631	24,159	35	0.07	36	0.07	37	0.07	38	0.07	39	0.06
1986	37,612	34,121	34	0.10	35	0.10	36	0.10	37	0.10	38	0.09
1987	29,351	26,627	33	0.08	34	0.08	35	0.08	36	0.08	37	0.07
1988	29,632	26,882	32	0.08	33	0.08	34	0.08	35	0.08	36	0.08
1989	34,721	31,498	31	0.10	32	0.10	33	0.10	34	0.09	35	0.09
1990	24,938	22,623	30	0.07	31	0.07	32	0.07	33	0.07	34	0.07
1991	23,506	21,324	29	0.07	30	0.07	31	0.07	32	0.07	33	0.06
1992	22,581	20,485	28	0.07	29	0.07	30	0.07	31	0.06	32	0.06
1993	25,853	23,453	27	0.08	28	0.08	29	0.08	30	0.08	31	0.07
1994	11,052	10,026	26	0.03	27	0.03	28	0.03	29	0.03	30	0.03
1995	24,398	22,133	25	0.08	26	0.08	27	0.08	28	0.07	29	0.07
1996	29,339	26,616	24	0.10	25	0.09	26	0.09	27	0.09	28	0.09
1997	31,541	28,614	23	0.11	24	0.10	25	0.10	26	0.10	27	0.10
1998	34,096	30,931	22	0.12	23	0.11	24	0.11	25	0.11	26	0.11
1999	37,226	33,771	21	0.13	22	0.13	23	0.12	24	0.12	25	0.12
2000	37,177	33,726	20	0.13	21	0.13	22	0.13	23	0.12	24	0.12
2001	42,311	38,384	19	0.15	20	0.15	21	0.15	22	0.14	23	0.14
2002	67,726	61,440	18	0.25	19	0.25	20	0.24	21	0.24	22	0.23
2003	68,918	62,521	17	0.26	18	0.26	19	0.25	20	0.25	21	0.24
2004	84,234	76,416	16	0.32	17	0.32	18	0.31	19	0.31	20	0.30
2005	85,613	77,667	15	0.34	16	0.33	17	0.32	18	0.32	19	0.31
2006	79,763	72,360	14	0.32	15	0.31	16	0.31	17	0.30	18	0.30
2007	73,411	66,597	13	0.30	14	0.29	15	0.29	16	0.28	17	0.28
2008	63,099	57,242	12	0.26	13	0.26	14	0.25	15	0.25	16	0.24
2009	56,757	51,489	11	0.24	12	0.24	13	0.23	14	0.23	15	0.22
2010	59,199	53,704	10	0.26	11	0.25	12	0.25	13	0.24	14	0.24
2011	64,530	58,541	9	0.29	10	0.28	11	0.27	12	0.27	13	0.26
2012	63,065	57,212	8	0.29	9	0.28	10	0.27	11	0.27	12	0.26
2013	75,780	68,746	7	0.35	8	0.34	9	0.34	10	0.33	11	0.32
2014	84,593	76,742	6	0.40	7	0.39	8	0.38	9	0.38	10	0.37
2015	96,482	87,527	5	0.46	6	0.45	7	0.45	8	0.44	9	0.43
2016	105,387	95,606	4	0.52	5	0.51	6	0.50	7	0.49	8	0.48
2017	104,479	94,782	3	0.52	4	0.51	5	0.50	6	0.49	7	0.48
2018	95,924	87,020	2	0.49	3	0.48	4	0.47	5	0.46	6	0.45
2019	94,702	85,912	1	0.49	2	0.48	3	0.47	4	0.46	5	0.45
2020	108,242	98,196			1	0.56	2	0.55	3	0.54	4	0.53
2021	110,407	100,160					1	0.57	2	0.56	3	0.55
2022	112,615	102,163							1	0.59	2	0.57
2023	114,868	104,207									1	0.60
2024	117,165	106,290										
<b>Total NMOC Generation (Mg)</b>				<b>8.28</b>		<b>8.68</b>		<b>9.08</b>		<b>9.49</b>		<b>9.90</b>

## **ATTACHMENT D**

### **2020 FILL PLAN & SITE LIFE PROJECTION**



Drawing Prepared & Approved by :

### Chicago Grade Landfill & Recycling

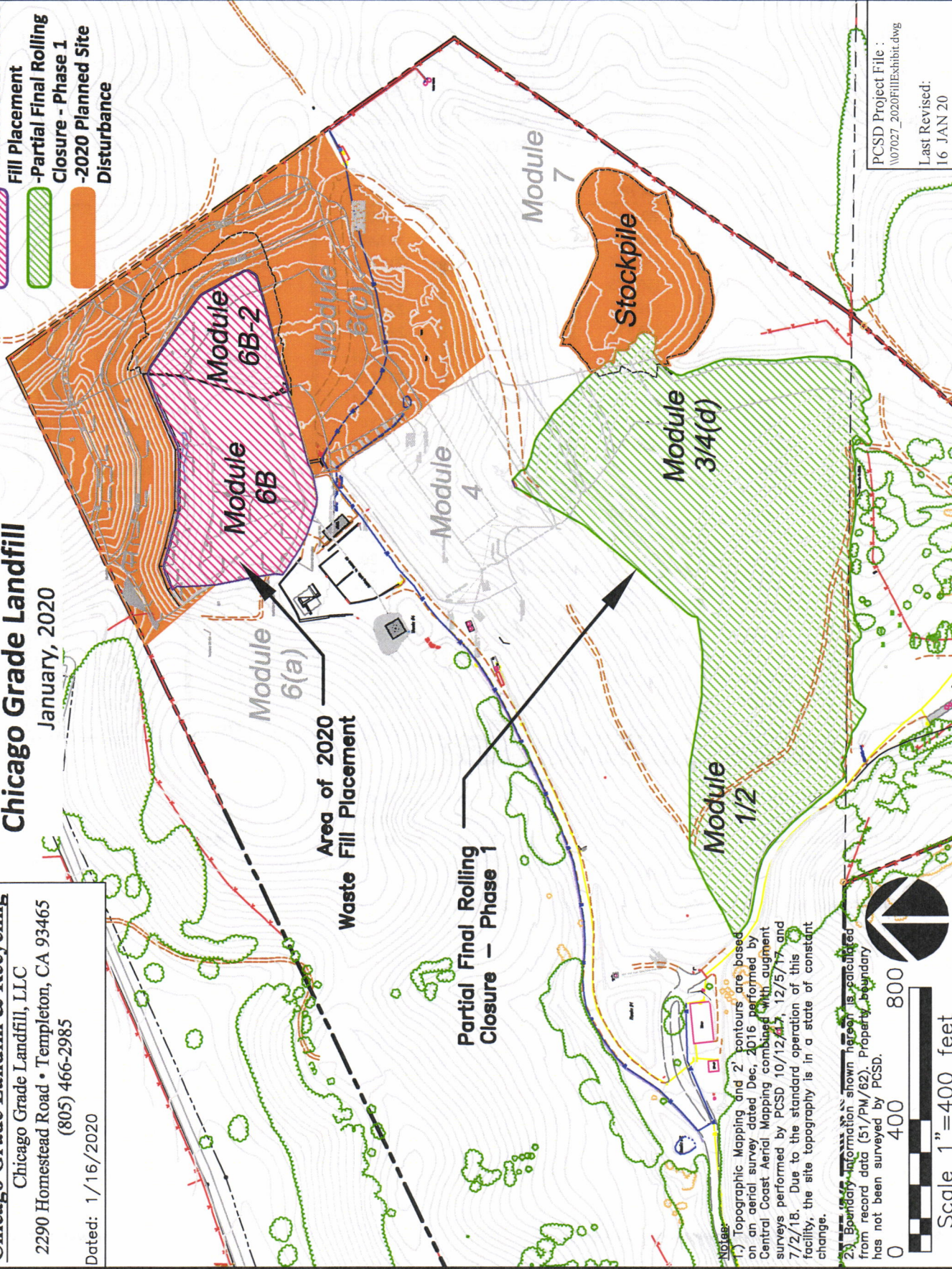
Chicago Grade Landfill, LLC  
2290 Homestead Road • Templeton, CA 93465  
(805) 466-2985

Dated: 1/16/2020

## 2020 Module Fill Plan Chicago Grade Landfill

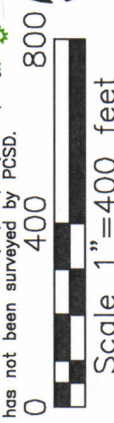
January, 2020

- Legend:**
- Planned 2020 Waste Fill Placement
  - Partial Final Rolling Closure - Phase 1
  - 2020 Planned Site Disturbance



**Notes:**

- 1.) Topographic Mapping and 2' contours are based on an aerial survey dated Dec, 2016 performed by Central Coast Aerial Mapping combined with augments surveys performed by PCSD 10/12/15, 12/5/17, and 7/2/18. Due to the standard operation of this facility, the site topography is in a state of constant change.
- 2.) Boundary information shown herein is calculated from record data (51/PM/62). Property boundary has not been surveyed by PCSD.



PCSD Project File :  
\\07027\_2020\Fill\Exhibit.dwg  
Last Revised:  
16 JAN 20



TABLE 2  
SITE LIFE PROJECTION  
MODULES 1-7  
as of 12/31/18  
CHICAGO GRADE LANDFILL, INC.

Year	Annual Waste (tons/year)	Annual Waste (cubic yards)	Annual Daily Cover (cubic yards)	Amount Landfilled Per Year (cubic yards)	Cumulative Waste and Daily Cover (cubic yards)	Cumulative Waste (tons)	
2016	100,000	142,000	56,800	198,800	198,800	100,000	MODULES
2017	102,000	144,840	57,936	202,776	401,576	202,000	
2018	38,362	54,780	21,912	76,692	484,366	248,228	
2018	57,562	82,199	32,880	115,079	599,445	305,790	MODULE 6
2019	94,701	135,422	53,980	189,402	788,847	400,491	
2020	108,242	153,704	61,482	215,186	1,004,033	508,733	
2021	110,407	156,778	62,711	219,490	1,223,523	619,141	
2022	112,615	159,914	63,966	223,879	1,447,402	731,756	
2023	114,868	163,112	65,245	228,357	1,675,759	846,624	
2024	117,165	166,374	66,550	232,924	1,908,683	963,789	
2025	119,508	169,702	67,881	237,583	2,146,266	1,083,297	
2026	121,899	173,096	69,238	242,334	2,388,600	1,205,196	
2027	124,336	176,558	70,623	247,181	2,635,781	1,329,532	
2028	126,823	180,089	72,036	252,125	2,887,905	1,456,355	
2029	129,360	183,691	73,476	257,167	3,145,072	1,585,715	
2030	131,947	187,365	74,946	262,310	3,407,383	1,717,662	
2031	134,586	191,112	76,445	267,557	3,674,939	1,852,248	
2032	137,278	194,934	77,974	272,908	3,947,847	1,989,525	
2033	64,082	90,996	36,399	127,395	4,075,242	2,053,607	MODULE 7
2033	75,941	107,836	43,134	150,971	4,226,213	2,129,548	
2034	142,824	202,810	81,124	283,934	4,510,147	2,272,372	
2035	145,680	206,866	82,747	289,613	4,799,760	2,418,053	
2036	148,594	211,004	84,401	295,405	5,095,165	2,566,647	
2037	151,566	215,224	86,089	301,313	5,396,478	2,718,213	
2038	154,597	219,528	87,811	307,339	5,703,817	2,872,810	
2039	140,944	198,427	79,559	287,461	5,991,278	3,013,754	
<b>TOTAL:</b>	<b>3,005,888</b>	<b>4,268,361</b>	<b>1,707,344</b>				

**Notes:**

<b>Total Waste Capacity - Tons</b>	3,005,888	1) Module 4 is full in July 2018.
<b>Total Waste Capacity - CY</b>	4,268,361	2) Module 6 is full in June 2033.
<b>Total Daily Cover - CY</b>	1,707,344	3) Modules 7 full in October 2039.
<b>Final Cover - CY</b>	256,215	4) Module 8 capacity of 9,727,613 cubic yards not included
<b>Total Air Space - CY</b>	6,231,920	
<b>Active Life (yr) from 01/06/16 - Modules 1-7</b>	25 Years	

## ATTACHMENT E

### ORIGINAL PERMIT (547-8)

40CFR61, Subpart A, General Provisions (National Emission Standards for Hazardous Air Pollutants - NESHAPS)  
40CFR62, Subpart GGG, Federal Plan Requirements for MSW Landfills  
40CFR63, Subpart A, General Provisions  
40CFR63, Subpart AAAA, Municipal Solid Waste Landfills  
Title 17, California Code of Regulations, Subchapter 10, Article 4, Subarticle 6, Methane Emissions from Municipal Solid Waste Landfills (17CCR)

10. District rule numbers only will be used for the most part in this permit. Rule titles are as follows (parentheses indicate an identical title for both the SIP and the current versions of a rule):

(SIP) Rule 106, Standard Conditions  
Rule 107, Upset and breakdown Conditions  
SIP Rule 113, Particulate Matter  
SIP Rule 114, Gaseous Contaminants  
SIP Rule 201.E, Posting of Permit to Operate  
Rule 201, Equipment Not Requiring a Permit  
Rule 202, Permits  
Rule 204, Requirements (a.k.a. New Source Review)  
SIP Rule 205, Conditional Approval  
Rule 206, Conditional Approval  
Rule 210, Periodic Inspection, Testing and Renewal of Permits to Operate  
Rule 216, Federal Part 70 Permits  
Rule 302, Schedule of Fees  
(SIP) Rule 401, Visible Emissions  
Rule 402, Nuisance  
Rule 403, Particulate Matter Emission Standards  
(SIP) Rule 404, Sulfur Compounds Emission Standards, Limitations and Prohibitions  
(SIP) Rule 406, Carbon Monoxide Emission Standards and Limitations  
SIP Rule 407, Organic Material Emission Standards, Limitations and Prohibitions  
Rule 407, Organic Material Emission Standards  
(SIP) Rule 416, Degreasing Operations  
Rule 426, Landfill Gas Emissions  
Rule 433, Architectural Coatings  
(SIP) Rule 501, General Burning Provisions

- B. Abbreviations used in this permit are as follows:

40CFR	Chapter 40 to the Code of Federal Regulations
APCO	Air Pollution Control Officer
bhp	brake horsepower
Btu	British thermal unit
CARB	California Air Resources Board
CCR	California Code of Regulations
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CIWMB	California Integrated Waste Management Board

*Chicago Grade Landfill*  
*Title V Permit to Operate 547-8*

dscf	dry standard cubic foot
EPA	United States Environmental Protection Agency
°F	degrees Fahrenheit
gal	gallon
gr	grains
H&SC	California Health and Safety Code
H <sub>2</sub> S	hydrogen sulfide
hp	horsepower
hr	hour
lb	pounds
LFG	landfill gas
mmBtu million	British thermal unit of heat input
MSDS	Material Data Safety Sheet
NMOC	non-methane organic compounds
NO <sub>x</sub>	oxides of nitrogen
O <sub>2</sub>	oxygen
ppmv	parts per million by volume
psia	pounds per square inch absolute
RWQCB	Regional Water Quality Control Board
scf	standard cubic feet
scfm	standard cubic feet per minute
SIC	Standard Industrial Classification
SIP	State of California Implementation Plan
TOC	total organic compounds
tpy	tons per year
vol%	percent by volume
wt%	percent by weight



**FACILITY DESCRIPTION**

- A. General.** This permit is for the municipal solid waste landfill (Standard Industrial Classification, SIC, code 4953) portion of Chicago Grade's operation, which is located at 2290 Homestead Road in Templeton, California. Other Chicago Grade operations at the site that are not subject to federal permitting requirements include a portable tire shredder (SIC 5093) and a household hazardous waste facility (SIC 9511).

Chicago Grade Landfill has a design capacity of 11.2 million cubic yards (8.6 million cubic meters) including both waste in place and future potential. This facility is subject to 40 CFR Part 62, Subpart GGG, the Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction Prior to May 30, 1991 and Have Not Been Modified or Reconstructed Since May 30, 1991. That regulation has recordkeeping and reporting provisions and it also specifies that a Title V operating permit is required. Subpart GGG cross references several requirements in the New Source Performance Standard for Municipal Solid Waste Landfills – 40 CFR Part 60, Subpart WWW.

Waste disposal activities occupy <sup>36</sup> acres at this facility. An expansion was approved in 2007 that increased the permitted disposal area to 76.4 acres, on a total facility size of 188 acres. There are currently no disposal modules that have reached their planned final elevation and have closed. An enclosed ground flare is in use to combust the collected landfill gas, and source testing has demonstrated a 98%+ destruction efficiency for hydrocarbons. This facility has operated under a San Luis Obispo County Air Pollution Control District permit since 1998.

- B. Specific Equipment.** Major emission units are listed below but all associated valves, flanges, piping, condensate pots, and minor emission units, which are not explicitly identified, are also included in this permit and subject to their respective major emission unit's requirements. Chicago Grade is authorized to operate the equipment listed below in the configuration described. [SIP Rule 201]
1. **Solid Waste Landfill**, with a landfill gas collection system, pipeline, and enclosed ground flare system consisting of:

	Title	Capacity	Description
a.	main blower	400 cfm	electrically driven
b.	enclosed ground flare	400 scfm max.	John Zink ZTOF, 4.9 mmBTU/hr, propane fueled pilot, with continuous temperature and flow sensors and recorders
c.	landfill property boundary perimeter wells		sample points to check for evidence of offsite gas migration
d.	LFG extraction wells		sampling port upstream of the throttle valve
e.	LFG collection pipes and headers		

- C. Insignificant Equipment.** The following equipment and equipment types are considered environmentally insignificant. This equipment is not subject to the provisions of this permit except for those units which are subject to a federally-enforceable, generally applicable requirement as listed in section III.A.1.

Description	Basis for Insignificance
maintenance machining equip., e.g., drills, saws, presses	Rule 201.A.1
internal combustion engines < 50 hp	Rule 201.B.1
Household Hazardous Waste Facility	Rule 201.A.1
grounds maintenance equip., e.g., weed eaters, mowers	Rule 201.B.1
domestic hot water heaters	Rule 201.B.2
graders, loaders, utility trucks, and other mobile equipment	Rule 201.C.1
storage tanks with < 250-gallon capacity	Rule 201.I.1
diesel storage tanks used for vehicle refueling	Rule 201.I.3
lubricating oil storage	Rule 201.I.8
gasoline storage tanks used for vehicle refueling	Rule 201.I.9
cold solvent cleaner	Rule 201.J.2
comfort air conditioning	Rule 201.M.1
pressure washer cleaning equipment	Rule 201.M.4
comfort space heating	Rule 201.M.5
welding equipment	Rule 201.N.2

#### LANDFILL EMISSION LIMITS AND STANDARDS

1. The flare shall:
  - a. be operated and maintained in conformance with the manufacturer's design; [District-only Rule 206]
  - b. have sufficient flow of propane gas to the pilot flame to ensure immediate ignition when in contact with landfill gases during startup, restart, or when the flow of landfill gases is inadequate to sustain combustion of the flare; and [District-only Rule 206]
  - c. have a VOC destruction/treatment efficiency of at least ninety-eight percent (98%) by weight; or reduce the VOC concentration at the outlet to a maximum of 30 ppm measured as methane and corrected to three (3) percent oxygen on a dry basis. [District-only Rule 206]
  - d. have a methane destruction efficiency of at least ninety-nine percent (99%) by weight. [17CCR 95464 (b)(2)(A)1.]
  - e. be operated with oxides of nitrogen (NOx) emissions that do not exceed 0.06 pounds per million BTU of heat input. [District-only Rule 206]
  
2.
  - a. Visible emissions shall not exceed Ringlemann #2 or forty percent (40%) opacity for a period exceeding three (3) minutes aggregated in any sixty (60) minute period of time. [H&SC 41701 and SIP Rule 401]
  - b. Visible emissions shall not exceed Ringlemann #1 or twenty percent (20%) opacity for a period exceeding three (3) minutes aggregated in any sixty (60) minute period of time. [District-only Rule 401]



These visible emission limits shall not apply to open outdoor fires, which have been approved by the APCO, for the purposes of employee instruction in fire fighting methods. [SIP Rule 401.B.3]

3. Particulate matter emissions shall not exceed any of the following:
  - a. 0.3 gr/scf corrected to three percent (3%) O<sub>2</sub>, wet, for combustion device emission units; [SIP Rule 113]
  - b. 0.12 lbs/mmBTU heat input, combustion emission units; [District-only Rule 403.C]
4. Sulfur Compound Limitations [SIP Rules 114.1 and 404.E]
  - a. Sulfur compound emissions shall not exceed 0.20% by volume, calculated as sulfur dioxide;
  - b. Gaseous fuel sulfur content shall not exceed 50 gr/100 dscf (797 ppmv) total sulfur, as H<sub>2</sub>S at standard conditions.
  - c. Liquid fuel sulfur content shall not exceed 0.5 wt% sulfur.
5. Carbon monoxide emissions shall not exceed any of the following:
  - a. 2,000 ppmv at standard conditions, except for internal combustion engines. [SIP Rule 406];
  - b. 0.20 pounds per million BTU heat input. [District-only Rule 206]
6. Chicago Grade shall cause to be operated a landfill gas collection system that effectively captures the gas generated such that: [District-only Rule 206]
  - a. the system is 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 collection system; and
  - b. landfill gas is collected from each area, cell or group of cells in which non-asbestos degradable solid waste has been placed for a period of 5 years or more for active areas or 2 years or more for closed areas; and
  - c. off-site migration of subsurface gas is minimized; and
  - d. each active collection system wellhead is under negative pressure. If a positive pressure exists, action shall be initiated to correct the exceedance, except for the following conditions:
    - i. a fire or increased well temperature. Chicago Grade shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the semiannual reports as provided in Condition 21; or
    - ii. use of a geomembrane or synthetic cover. Acceptable pressure limits shall be submitted by Chicago Grade in their design plan; or
    - iii. a decommissioned well.

If negative pressure cannot be achieved without excess air filtration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. An alternative timeline for correcting the exceedance may be submitted to the Administrator for approval.

  - e. the collected landfill gas temperature: is less than 55 °C at the well, and either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting

## CONVENTIONS AND ABBREVIATIONS

- A. The following conventions are used in this permit.
1. Referencing of conditions: The reference for each requirement will be noted in [square brackets]. References that are noted as being "District-only" are not federally-enforceable requirements. **All conditions with references in [square brackets] that do not contain the phrase "District-only" must be considered federally-enforceable requirements.**
  2. Requirements based on current District rules will be noted by the phrase "Rule" followed by the rule number. Requirements based on District rules approved into the State of California Implementation Plan (SIP) will be noted by the phrase "SIP Rule," followed by the rule number as it appears in the SIP.
  3. If the SIP version of a rule is the same as the current version of a rule, only the SIP version will be cited. If the SIP version of a rule is different than the current version, both will be included.
  4. If there is no over-riding need for the current version of a permit condition to be considered federally-enforceable, it will be listed as "District-only." An example of an over-riding need might be when that condition is needed to support a federally-enforceable limit.
  5. In multi-part conditions, the general reference notation at the beginning of the condition will apply throughout except for those subparts that are followed by a specific reference.
  6. Unless otherwise noted, a "day" shall be considered a 24-hour period from midnight to midnight (*i.e.*, calendar day).
  7. The number of digits displayed for any given emission or operational limit in this permit is intended to represent the number of significant digits for test or analysis results rounding. *e.g.*, 2,000 ppmv is intended to represent 2.000E3 ppmv and any test result greater than 2,000.5 ppmv would not comply with that limit.
  8. When rounding test and analysis results or recorded and reported values to the correct number of significant digits, any rounding of the value "5" should result in an even number. *e.g.*, 34.65 to three significant figures would be written 34.6. Also when rounding, if the final digit is 0, 1, 2, 3, or 4, the number does not change and, if the final digit is 6, 7, 8, or 9, the number is increased by one.
  9. Federal and state regulation subpart references will typically be indicated by their subpart designation followed by a section number. The titles of all subparts included here are as follows:

40CFR60, Subpart A, General Provisions (New Source Performance Standards)  
40CFR60, Subpart WWW, Standards of Performance for MSW Landfills

40CFR61, Subpart A, General Provisions (National Emission Standards for Hazardous Air Pollutants - NESHAPS)  
40CFR62, Subpart GGG, Federal Plan Requirements for MSW Landfills  
40CFR63, Subpart A, General Provisions  
40CFR63, Subpart AAAA, Municipal Solid Waste Landfills  
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SIP Rule 114, Gaseous Contaminants  
SIP Rule 201.E, Posting of Permit to Operate  
Rule 201, Equipment Not Requiring a Permit  
Rule 202, Permits  
Rule 204, Requirements (a.k.a. New Source Review)  
SIP Rule 205, Conditional Approval  
Rule 206, Conditional Approval  
Rule 210, Periodic Inspection, Testing and Renewal of Permits to Operate  
Rule 216, Federal Part 70 Permits  
Rule 302, Schedule of Fees  
(SIP) Rule 401, Visible Emissions  
Rule 402, Nuisance  
Rule 403, Particulate Matter Emission Standards  
(SIP) Rule 404, Sulfur Compounds Emission Standards, Limitations and Prohibitions  
(SIP) Rule 406, Carbon Monoxide Emission Standards and Limitations  
SIP Rule 407, Organic Material Emission Standards, Limitations and Prohibitions  
Rule 407, Organic Material Emission Standards  
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Rule 426, Landfill Gas Emissions  
Rule 433, Architectural Coatings  
(SIP) Rule 501, General Burning Provisions

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Btu	British thermal unit
CARB	California Air Resources Board
CCR	California Code of Regulations
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CIWMB	California Integrated Waste Management Board

data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens; and

- f. the surface methane concentration over the landfill shall not exceed 500 ppmv above the background level.
7. Chicago Grade shall cause the landfill gas flare to be operated at all times that the collected landfill gas is routed to that system. If the collection or control systems are inoperable, the gas mover system shall be shutdown and all valves in the systems contributing to venting of the gas to the atmosphere shall be closed within 1 hour. [District-only Rule 206]
8. The average flare combustion temperature during the most recent performance test shall be recorded. Any 3-hour period of operation where the average flare combustion temperature is more than 28° C below that average test temperature shall be recorded and reported as an exceedance in the facility's semi-annual report. This average flare temperature requirement does not apply during periods of startup, shutdown and malfunction. [District-only Rule 206]
9. The provisions of this permit relating to the operation of the landfill gas collection and control system apply at all times, except during periods of start-up, shutdown, or malfunction. [District-only Rule 206].
10. There shall be no landfill gas leaks from the gas wells, piping, flanges, valves, blowers, flame arresters, pipe fittings, sampling ports, or any other connections or fittings along the landfill gas transfer path of the landfill gas collection or control system. For this condition a leak shall be defined as a concentration of total organic compounds measured as methane that exceeds 500 ppmv except non-repeatable, momentary readings. [District-only Rule 206]
11. Whenever previously buried waste is brought to the surface during installation or preparation of wells, trenches, piping, or other equipment, or when solid waste is to be excavated and moved, the owner shall cover the excavated waste using fresh soil, plastic sheeting, vapor retarding foam, or other CIWMB approved "Alternate Daily Cover," by the end of the working day or as necessary to prevent a public nuisance, whichever is sooner. Any asbestos containing material shall be handled in accordance with all state and federal regulations. [District-only Rule 206]
12. The condensate from the gas collection system shall be collected, stored, and treated in a manner approved by the RWQCB and the CIWMB. [District-only Rule 206]

#### **TESTING REQUIREMENTS AND PROCEDURES**

13. Chicago Grade shall cause monitoring or testing to be conducted to verify compliance with Conditions 6 and 10 as follows:

Check on a weekly basis. [District-only, Rule 206]

- a. LFG flow rate chart – change as needed.
- b. Visually inspect flare station equipment and piping.

On a monthly basis: [District-only, Rule 206]

- c. Monitor the landfill for cover integrity and implement cover repairs as necessary.
- d. At each collection system well: measure the gauge pressure; monitor the temperature of the landfill gas; and the nitrogen or oxygen content. If the nitrogen or oxygen content, or the temperature exceeds the values listed in Condition 6.e above, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance can not be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance.

On a quarterly basis: [District-only, Rule 206]

- e. Monitor the surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals. This surface monitoring shall be performed in accordance with section 4.3.1 of EPA Method 21, except that the probe shall be placed within 5 to 10 centimeters of the ground.
14. Any landfill surface reading of 500 ppm or greater above background shall be recorded as a monitored exceedance. The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells. A monitored exceedance is not a violation of the operational requirement contained in Condition 6.f above as long as the following specified actions are taken: [District-only, Rule 206]
- a. The location of each monitored exceedance shall be marked and the location recorded.
  - b. Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance; and
  - c. If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in section e of this condition shall be taken.
  - d. Any location that initially showed an exceedance but has a methane concentration less than 500 ppm above background at the 10-day re-monitoring specified in section b or c of this condition shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 ppm above background, no further monitoring is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in section c or e of this condition shall be taken.
  - e. For any location where monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance and a corresponding time line for installation may be submitted to the District for approval.
15. **Compliance Testing.** All plan preparation, testing and reporting shall comply with the most recent version of the District's Source Test Policy, unless otherwise specified here. A source test plan shall be submitted at least thirty working days prior to any test and the results shall

be reported to the APCO within forty-five calendar days of testing. [District-only, Rule 206 and District-only, Rule 210.B.1]

- a. Chicago Grade Landfill shall conduct or cause to be conducted the following tests on a triennial basis. [District-only Rule 426.F.4]

Location	Parameter	Units	Method & Notes	
flare inlet	1.	NMOC	lb/hr	EPA-25A [District-only, Rule 426.F.1]
	2.	oxygen	vol%	EPA 3 or 3A [District-only, Rule 206]
	3.	LFG flow rate	scfm	installed instrument [District-only, Rule 206]
	4.	LFG heating value	Btu/scf	ASTM D 1946/3588 [District-only, Rule 206]
	5.	methane	lb/hr	EPA 18 or 25 [17 CCR 95471]
flare outlet	6.	NMOC	lb/hr	EPA-25A [District-only, Rule 426.F.1]
	7.	NMOC	ppmv @3%O <sub>2</sub> dry	EPA-25A [District-only, Rule 426.F.1]
	8.	NMOC	destruction efficiency	District Rule 426.G.4 [District-only, Rule 426.F.1]
	9.	oxygen	vol%	EPA 3 or 3A [District-only, Rule 206]
	10.	exhaust flow rate	scfm	CARB-100 [District-only, Rule 206]
	11.	NO <sub>x</sub>	lb/mmBtu	CARB-100 [District-only, Rule 206]
	12.	CO	lb/mmBtu	CARB-100 [District-only, Rule 206]
	13.	methane	destruction efficiency	EPA-18 [17 CCR 95460]

#### RECORDKEEPING REQUIREMENTS

16. Chicago Grade shall record the following information:
  - a. A map indicating the location and date of cover placement for each area with intermediate and final cover. [District-only, Rule 426.H.1.a]
  - b. The results of all methane or NMOC emission tests including off-site migration tests, perimeter well tests, and surface cover tests. [District-only, Rule 426.H.1.c]
  - c. On a continuous basis, Chicago Grade shall monitor and record the total gas collection flow rate for the landfill. [District-only Rule 206]
  - d. The oxygen concentration at the inlet to the flare on a weekly basis. [District-only, Rule 206]
  - e. Monthly records of cumulative flare system failure, upset, or downtime. [District-only, Rule 206]
  - f. Continuous permanent records of the control device temperature showing dates and times (i.e. chart recorder). [District-only Rule 206]
  
17. Chicago Grade shall maintain up-to-date records of the maximum design capacity, the current amount of solid waste in place, the year-by-year waste acceptance rate, and the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from gas collection, as well as any nonproductive areas excluded from gas

collection. These records shall be retained on-site or be available within 4 hours if stored off-site. [40CFR60.758.d.2, 60.759.a.3]

18. Chicago Grade shall maintain records of all data required by Condition 13. [District-only, Rule 206]
19. Chicago Grade shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring, sample collection, measurement, report, and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. [District-only, Rule 216 F.1.c.4]

**REPORTING REQUIREMENTS**

20. Deviations from permit requirements, including those that are attributable to breakdown or upset conditions, shall promptly be reported to the Air Pollution Control Officer (APCO). Reports shall include the probable cause of such deviations, and the corrective actions or preventive measures taken. Prompt reporting for this condition is defined as a verbal report as soon as reasonably possible, but in any case, within four hours after the deviation's detection, followed by a written report within ten calendar days of having corrected the deviation. [Rule 216.F.1.o]
21. Semi-annual reporting. Each report, due on the date indicated in the following table, should include data for the respective time periods in any given year unless otherwise indicated. [40 CFR 70.6 (a)(3)(iii)]

Due Date	Semi-annual Data	Annual Data
March 31	Sept 1 through February 28	March 1 through February 28
Sept. 30	March 1 through August 31	

On a semi-annual basis, Chicago Grade shall submit a report to the APCO, with a copy to the EPA Region IX Administrator. Each report shall be submitted no later than March 31 and September 30 of any given year; shall be certified to be true, accurate, and complete by a responsible official; and shall include the following information: [Rule 216.F.1.c.3 and 40 CFR 70.6 (a)(3)(iii)]

- a. The value and duration for each exceedance of the limits in Condition 6 of this permit.
- b. A description and the duration of any period when the LFG collection system was not in operation for a period exceeding five calendar days.
- c. The location of each condition 6.f exceedance.
- d. The concentration measured during re-monitoring, one month after an exceedance or repair.
- e. The location, date, and reason for any installation of a new collection well.
- f. Include a summary of deviations from requirements in this permit. [Rule 216.F.1.c.3.i]



- g. If Chicago Grade is not in compliance with any federally-enforceable requirement, include a progress report on the schedule of compliance which has been approved by the District Hearing Board. That report shall include: [Rule 216.F.2.c]
    - i. dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and
    - ii. an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
22. On an annual basis, no later than March 31 of each year, Chicago Grade shall submit a Compliance Certification Report to the APCO pursuant to District Rule 216.L.3, with a copy to the EPA Region IX Administrator. This report shall identify each federal applicable requirement in this permit, the compliance status of each subject process unit, whether the compliance was continuous or intermittent since the last certification, and the method(s) used to determine compliance. Each report shall be certified to be true, accurate, and complete by a responsible official. [Rule 216.L.3]
23. On an annual basis, no later than March 31 of each year, Chicago Grade shall submit an estimate of NMOC emissions to the EPA Region IX Administrator with a copy to the APCO. [40CFR62.14355 and 40CFR60.757.b]

#### GENERAL CONDITIONS

24. For the purposes of this permit, all requirements shall be based on standard atmospheric conditions of sixty degrees Fahrenheit (60°F) and 14.7 psia. [SIP Rule 106]
25. If the APCO determines that the operation of this equipment is causing a public nuisance, Chicago Grade shall take immediate action to eliminate such nuisance. [District-only, Rule 402]
26. This facility must comply with all applicable provisions of the Air Toxic "Hot Spots" Act as set forth in Health and Safety Code Section 44300 (*et seq.*). [District-only, H&SC 44300 (*et seq.*) and, District-only, Rule 206]
27. The APCO shall be notified in writing before any changes are made in the design, construction, or operation of this equipment or any modifications are made to process condition that might increase the emission of air contaminants. [District-only, Rule 202]
28. Chicago Grade shall ensure that cold solvent metal cleaning devices, with the exception of wipe clean operations:
- a. utilize: [SIP Rule 416.B]
    - i. a container for the solvent and the articles being cleaned;
    - ii. a cover, easily operated with one hand, which prevents the solvent from evaporating when the cleaning device is not in use;
    - iii. a shelf for draining cleaned parts such that the drained solvent is returned to the solvent storage container;

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- iv. a permanent, conspicuous label, which lists all applicable operating requirements; and
  - v. a freeboard ratio equal to or greater than 0.75, if the solvent surface area is greater than or equal to 5.4 square feet; and
- b. are operated as follows: [SIP Rule 416.C]
- i. All degreasing equipment and emission control equipment must be operated and maintained in good working order.
  - ii. No solvent may be allowed to leak from the degreasing equipment.
  - iii. All solvent must be stored and disposed of in a manner that prevents its evaporation to the atmosphere.
  - iv. The cover of any cleaning device shall not be removed unless that device is in use or undergoing maintenance.
  - v. The operator shall drain parts for at least fifteen (15) seconds after cleaning or until dripping ceases.
  - vi. Flowing solvent shall consist of a liquid stream and not a fine, atomized, or shower type spray; and the motive pressure for that solvent flow shall be sufficiently low to prevent the splashing of solvent beyond the container.
29. Chicago Grade shall not ignite or maintain an open outdoor fire except as approved by the APCO for the purposes of employee instruction in fire fighting methods. [SIP Rule 501.A]
30. While temporarily operating at Chicago Grade, any portable wood waste grinding equipment, trommel screen, or internal combustion engine, which provides the motive power for that grinding equipment or screen, shall comply with all applicable requirements of this permit and 17CCR93116, the Airborne Toxic Control Measure for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower and Greater. [17CCR93116, District-only, Rule 206 for "District-only" conditions and SIP Rule 205 for all others]
31. If Chicago Grade is not in compliance with any federally-enforceable requirement, they shall submit to the APCO a schedule of compliance, which has been approved by the Hearing Board. [Rule 216.F.2.c]
32. A pending permit action, or notification of anticipated noncompliance, does not stay any condition of this permit. [Rule 216.F.1.e]
33. All terms and conditions of this permit are enforceable by the EPA Administrator and citizens of the United States under the federal Clean Air Act unless referenced as being based on a District-only requirement. All terms and conditions of this permit, including those referenced as being based on a District-only requirement, are enforceable by the APCO. [Rule 216.F.3]
34. This permit, or a true copy, shall be made readily accessible at the Chicago Grade landfill office and shall not be altered or defaced in any way. [SIP Rule 201.E&F]
35. The terms and conditions of this permit shall apply to the equipment listed herein, which is operated by either Chicago Grade or their contractor(s), and located at 2290 Homestead Road in Templeton, California or on contiguous properties to that address, which are owned and controlled by Chicago Grade and are classified as having a SIC code of 4953. Specifically

excluded from this permit are any composting, household hazardous waste, or recycling operations that occur on or near the landfill. [SIP Rule 205]

36. **Federal Regulation and District Compliance Plans:** This permitted equipment shall be operated consistent with the information provided in the Title V application under which this permit was issued, and shall be maintained in good working order at all times and in such a manner as to minimize the emission of air contaminants. [40CFR60.11.d]
37. **Severability.** The provisions of this Permit to Operate are severable, and, if any provision of this Permit to Operate is held invalid, the remainder of this Permit to Operate shall not be affected thereby. [Rule 216.F.1.e]
38. **Circumvention.** Chicago Grade shall not build, erect, install, or use, any article, machine, equipment, or process subject to an applicable standard, if its use would conceal an emission that would otherwise constitute a violation of any standard. [40CFR60.12, 40CFR61.19, 40CFR63.4.b, District-only, Rule 206]
39. **Permit Life.** This Permit to Operate shall become invalid five years from the original effectiveness date unless a timely and complete renewal application is submitted to the APCO. Chicago Grade shall apply for renewal of this permit no later than six months before the date of expiration. Upon submittal of a timely and complete renewal application, this permit to operate shall remain in effect until the APCO issues or denies the renewal application. [Rule 216.l.1, l.2, & l.4]
40. **Payment of Fees.** Chicago Grade shall remit Title V compliance determination fees to the District in response to the District's invoice on a timely basis. Failure to remit fees in accordance with District Rule 302 shall result in forfeiture of this Permit to Operate. Operation without a permit to operate subjects the source to potential enforcement action by the District and the EPA pursuant to section 502(a) of the Clean Air Act. [Rule 216.F.1.k]
41. Chicago Grade shall comply with all terms and conditions of this permit. Non-compliance constitutes a violation of the federal Clean Air Act. Continuing non-compliance with any permit condition is grounds for permit termination, revocation and reissuance, modification, enforcement action, or denial of permit renewal. [District-only, Rule 206 for "District-only" enforceable conditions and Rule 216.F.1.f & 40CFR60.752.b.2.iv for all others]
42. The need to halt or reduce a permitted activity in order to maintain compliance shall not be used as a defense for noncompliance with any permit condition. [Rule 216.F.1.g]
43. This permit may be modified, revoked, reopened and reissued, or terminated for cause as determined by the District. The filing of a request by Chicago Grade for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [Rule 216.F.1.h & K.1]
44. This permit does not convey property rights or exclusive privilege of any sort. [Rule 216.F.1.i]

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45. Within a reasonable time period, Chicago Grade shall furnish any information requested by the APCO, for the purpose of determining:
- a. compliance with this permit; [Rule 216.F.1.j.2]
  - b. air contaminant emissions; [SIP Rule 205]
  - c. whether or not cause exists to modify, revoke, reissue, or terminate this permit; or [Rule 216.F.1.j.1]
  - d. whether or not cause exists for an enforcement action. [Rule 216.F.1.j.2]
46. **Right of Entry:** The Regional Administrator of U.S. Environmental Protection Agency, the Executive Officer of the California Air Resources Board, the APCO, or their authorized representatives, upon the presentation of credentials, shall be permitted to enter upon the premises and, at reasonable times, be permitted to: [Rule 216.F.2.a]
- a. inspect the stationary source, including equipment, work practices, operations, and emission-related activity;
  - b. inspect and duplicate records required by this Permit to Operate; and
  - c. sample substances or monitor emissions from the source or other parameters to assure compliance with the permit or applicable requirements. Monitoring of emissions can include source testing.
47. Chicago Grade shall comply with all requirements of Title 17, California Code of Regulations, Article 4, Subarticle 6, sections 95460 to 95476, Methane Emissions from Municipal Solid Waste Landfills.
48. **Compliance Determination Fees.** The following fee schedules shall apply to the indicated process units. [District-only, Rule 302.E]

Process	Fee Schedule (Rule 302.E)		Each
LFG collection and control system	29	landfill gas control	1

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**Title V Permit to Operate Renewal – Chicago Grade Landfill – Application 6376**

A notice of this proposed permit issuance was published in The Tribune on Wednesday July 29, 2016. The required 30 day public and affected states notice period has been completed – no comments were received. That comment period ran concurrently with the required 45 day EPA comment period. There were also no comments received from EPA or the neighboring air pollution control districts.

A few minor changes have been made to the new version of the permit as shown in the evaluation and the proposed draft document for this permit action:

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References to the state methane control measure were added, and some recordkeeping and reporting requirement were clarified. These changes are all minor and do not affect the facility's emissions.

Dean Carlson  
September 19, 2016

See H:\PERMITS\PO\EVAL\6376EVALSOB.DOCX for the complete evaluation; link in OIS ATC

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