Air Operating Permit Application

Cheyne Landfill
Zillah, Washington

Prepared for: **Yakima Public Services 7151 Roza Hill Drive Yakima, Washington 98901-7974**

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ENVIRON

Contents

Page

1. INTRODUCTION AND BACKGROUND 1

2. FACILITY AND PROCESS DESCRIPTION 2

2.1 PHYSICAL DESCRIPTION 2
2.2 PROCESS DESCRIPTION 2

3. EMISSION SOURCES AND ESTIMATES 3

3.1 FUGITIVE LFG 3
3.2 LANDFILL OPERATION ACTIVITIES 3

4. POTENTIALLY APPLICABLE REGULATIONS 4

4.1 FEDERAL REQUIREMENTS 4
4.1.1 Maximum Achievable Control Technology 4
4.1.2 New Source Performance Standards 5
4.1.3 Prevention of Significant Deterioration 5
4.1.4 Title IV Acid Rain Provisions 5
4.1.5 Title V Operating Permit 6
4.1.6 Compliance Assurance Monitoring 6
4.2 STATE REQUIREMENTS 6
4.2.1 Notice of Construction Permits 6
4.2.2 Air Operating Permit 7
4.2.3 General Requirements 7

5. COMPLIANCE CERTIFICATION 8

6. COMPLIANCE PLAN AND SCHEDULE 9

FIGURES

Figure 1-1 Facility Location
Figure 2-1 Site Layout

APPENDICES

Appendix A YRCAA Air Operating Permit Application Forms
Appendix B Facility-Wide Potential Emission Calculations
Appendix C Inapplicable Requirements

1. Introduction and Background

Yakima County owns and operates the Cheyne Landfill (CLF), located approximately five miles north of Zillah, Washington at 4970 Cheyne Road, Zillah, Washington 98953 (See Figure 1-1). The landfill is located on a 960-acre site and has been operated by the County since 1972. The design capacity of CLF is currently 8.2 million tons (7.44 million Mega grams [Mg]), which includes the recently permitted landfill expansion (Cell #2).[1] Yakima Regional Clean Air Agency (YRCAA) issued Order of Approval NSRP-27-CLF-08 for the expansion of CLF on August 19, 2009.

A Title V Air Operating Permit (AOP) is required for facilities with emissions of regulated pollutants exceeding 100 tons per year, emissions of hazardous (HAP) air pollutants exceeding 25 tons per year collectively, or 10 tons per year of a single HAP. CLF does not have the potential to exceed the regulated pollutant or HAP emission rate thresholds for the Title V program (WAC 173-401). However, CLF is subject to New Source Performance Standard (NSPS) Subpart WWW (Municipal Solid Waste Landfills). Based upon the current design capacity of the MSW landfill (7.44 million Mg), CLF is subject to additional NSPS Subpart WWW requirements, including the requirement to obtain a Title V AOP. [2]

R.W. Beck has retained ENVIRON International Corporation (ENVIRON) to prepare this initial Title V Air Operating Permit application on Yakima County's behalf. This application presents the information required by WAC 173-401-510 and YRCAA Regulation 1, Section 4.04, and information certification required by WAC 173-401-520. A completed set of standard Title V Air Operating Permit application forms is included in Appendix A.

[1] Amended Design Capacity Report – Letter correspondence from Joel Miller, R.W. Beck to Hasan Tahat, YRCAA on January 20, 2010.
[2] 40 CFR 60.752(b)

2. Facility and Process Description

CLF is located approximately five miles north of Zillah, Washington in Yakima County (location map, Fig. 1-1). CLF is located in an area classified as attainment or unclassifiable for all Federal and State ambient air quality standards. Figure 2-1 provides a plot plan of CLF depicting MSW cell boundaries and the facility property boundary.

2.1 Physical Description

In general, landfill design involves grading and surface preparation to create a suitable surface at an appropriate depth and placing solid waste in lifts within the landfill phase footprint. Each lift is covered with daily cover soil and with a more extensive operating surface cover at the top of the lift. When final height is reached, each phase of the landfill is placed under final cover.

Over time landfill gas (LFG) is generated by the buried waste, when organic material is decomposed by various bacteria, which generates primarily carbon dioxide (CO_2) and methane (CH_4), but also smaller concentrations of nitrogen (N_2), oxygen (O_2), non-methane organic compounds (NMOCs), and various other constituents.

2.2 Process Description

The CLF is open seven days a week, with business hours from 9 am – 5 pm (Monday – Saturday) and 12 pm – 5 pm on Sunday. The primary activity of CLF is the acceptance and deposition of MSW from residents of Yakima County through independent collectors (roadside pick-up) and resident self-haulers. Yakima County uses scales to quantify the weight of MSW accepted at the CLF.

Yakima County accepts yard and wood waste separate from MSW at CLF. By accepting yard and wood waste at the landfill, Yakima County residents have an easy way to dispose of yard waste. Periodically, a portable yard waste grinder is brought on-site to reduce the material size and generate chipped yard waste and wood chips. Chipped yard waste is available free to the public, or used at the landfill for daily cover. Yakima County is currently planning a ban on disposing of yard debris in all public and private landfills by January 1, 2012.[3]

Appliances are accepted at CLF in a specified area and decommissioned by a certified technician. Any chlorinated fluorocarbons (CFCs) and waste oil removed from the appliances are taken to the Household Hazardous Waste Facility at Terrace Heights Landfill. The decommissioned appliances are then shipped off-site for recycling. Waste tires are also accepted at CLF and temporarily stored until they are shipped off-site by vendors. Yakima County operates a series of septage evaporation ponds at CLF. In the future, Yakima County will also be accepting material containing asbestos at CLF.

[3] Yakima County Solid and Moderate Risk Waste Management Plan (June 2010), Page 5-15.

3. Emission Sources and Estimates

There are several sources of air pollutant emissions from the landfill. The emission sources discussed here concern those associated with the waste itself and the steps taken to get it in place. These include the fugitive LFG emissions from the surface of the landfill and various insignificant emission activities that generate fugitive dust (roadways, handling landfill cover material, and compacting/dozing). Potential emissions of criteria pollutants, HAPs, and toxic air pollutants (TAPs) for the landfill are presented in Form C-2 of Appendix A. Landfill operations that generate only fugitive emissions are considered Insignificant Emission Units by WAC 173-401 530(1)(d), and not included in the Title V application emission-related information. Detailed emission rate calculations for all non-insignificant emission units are presented in Appendix B.

3.1 Fugitive LFG

R.W. Beck provided ENVIRON with annual LFG production rates for CLF, based on the EPA's LandGEM model and MSW acceptance rates (past actual and projections). The LandGEM model estimates annual LFG production rates over the life of a landfill and includes AP-42 Section 2.4 (Municipal Solid Waste Landfills) default pollutant concentrations for the LFG. The EPA LandGEM model report for the estimated life of the landfill is also provided in Appendix B. ENVIRON updated the NMOC concentration in LFG to 425 parts per million by volume (ppmv) as hexane, compared to EPA's default NMOC concentration of 4,000 ppmv, based on recent Tier II testing conducted at CLF.[4]

3.2 Landfill Operation Activities

There are fugitive dust emissions associated with the movement of materials and personnel with heavy equipment. Fugitive dust from equipment is a function of the amount of MSW handled in any given year and emission factors developed using EPA's AP-42 reference document for fugitive emission sources. As provided by WAC 173-401-510(2)(c)(i), emission rates from insignificant emission units are not included with this AOP application.

[4] Cheyne Landfill Tier 2 NMOC Emission Rate Report – Letter correspondence from Joel Miller, R.W. Beck to Hasan Tahat, YRCAA on July 1, 2010.

4. Potentially Applicable Regulations

The CLF is subject to federal, state, and local air pollution control regulations. This section discusses each applicable regulation and details why other potentially applicable federal and state regulations are not applicable. A complete listing of the applicable federal, state, and local air quality regulations; requirements established in the facility's Cell #2 Expansion Order of Approval; and additional information regarding the applicability determinations is included as Form C-3 in Appendix A. A complete list of inapplicable regulations is included in Appendix C.

4.1 Federal Requirements

4.1.1 Maximum Achievable Control Technology

EPA established National Emission Standards for Hazardous Air Pollutants (NESHAP) under 40 CFR part 63 to regulate HAP emissions. This regulatory program specifies maximum achievable control technology (MACT) for source categories. Applicability of these MACT standards hinges on the type of source, as well as the source's status as a major source. Part 63 defines a "major source" as any facility that has the potential to emit more than 10 tons per year of a single HAP or more than 25 tons per year of all HAPs combined.

The highest single HAP potential to emit at the CLF is Xylene, at 1.4 tons per year. Overall, the CLF has a combined potential to emit of 11.3 tons per year for all HAPs. As a result, the landfill is not considered a "major source" with respect to the part 63 NESHAP program.

On January 16, 2003, EPA promulgated the MSW Landfill NESHAP (40CFR63, Subpart AAAA). The MSW Landfill NESHAP applies if CLF is a major source of HAPs, be co-located with a major source of HAPs, or have a design capacity greater than 2.5 million Mg and have uncontrolled NMOC emissions equal to or greater than 50 Mg per year. As discussed above, the landfill is not a major source of HAP emissions nor collocated with a major source of HAPs. Current NMOC emissions (10 Mg per year) are less than the 50 Mg per year threshold. Therefore, CLF is not currently subject to the MSW Landfill NESHAP. Yakima County will continue to evaluate the applicability of this NESHAP as part of its annual/5-year NMOC emission rate calculations.

On April 5, 1984, EPA promulgated the Asbestos NESHAP (40CFR61, Subpart M) which applies to numerous asbestos related activities, including asbestos waste disposal. The CLF is a waste disposal facility that will receive asbestos containing materials in the future; therefore, the landfill is subject to this NESHAP.

The Stationary Reciprocating Internal Combustion Engine NESHAP (40CFR63, Subpart ZZZZ) became effective on June 15, 2004. The NESHAP applies to all existing, new, or reconstructed stationary reciprocating internal combustion engine (RICE). No RICE is currently operated at CLF. The yard waste grinder that is periodically transported to the landfill uses a non-road engine (defined by 40CFR1068.30), which is not considered a stationary RICE under 40CFR63.6585(a).

4.1.2 New Source Performance Standards

EPA established New Source Performance Standards (NSPS) for new, modified, or reconstructed source categories that are specified in 40 CFR Part 60. These NSPS usually represent a minimum level of control that is required of a new source.

On March 12, 1996, EPA promulgated the MSW Landfill NSPS (40CFR60, Subpart WWW). The NSPS applies to each MSW landfill that commenced construction, reconstruction, or modification on or after May 30, 1991. The NSPS requires MSW landfills with a design capacity equal to or greater than 2.5 million Mg and 2.5 million cubic meters to report NMOC emissions. Additional requirements are triggered when calculated uncontrolled NMOC emissions exceed 50 Mg per year.

Yakima County submitted the *Amended Design Capacity Report and Tier I NMOC Emission Rate Report* to YRCAA on January 20, 2010. The initial NMOC emission rate report listed the NMOC emission rate as 94 Mg/yr using the default variable values listed in 40 CFR 60.754(a)(1)(i). Subsequently, Yakima County measured NMOC concentrations at CLF using Tier 2 methods (40 CFR 60.754(a)(3)) during May 3 – 7, 2010. The *Tier 2 NMOC Emission Rate Report* was submitted to YRCAA on July 1, 2010 presenting updated calculations of total NMOC emissions of 10 Mg/yr and 12.5 Mg/yr for calendar years 2010 and 2015.

The Stationary Compression Ignition Internal Combustion Engine NSPS (40CFR60, Subpart IIII) applies to stationary compression ignition internal combustion engines that commence construction after July 11, 2005 and were manufactured after April 1, 2006. No stationary compression ignition engines are currently operated at CLF. The yard waste grinder that is periodically transported to the landfill uses a non-road engine (defined by 40CFR1068.30). As defined in 40 CFR 60.4219: "... a stationary compression ignition engine is not a non-road engine..." Therefore, NSPS Subpart IIII is not applicable to the non-road engine.

4.1.3 Prevention of Significant Deterioration

EPA established the Prevention of Significant Deterioration (PSD) program to ensure that new or expanded sources do not cause a significant deterioration in the air quality of areas that currently meet applicable ambient air quality standards. Potential annual emissions of regulated NSR pollutants from the CLF are less than the general source major source definition threshold (250 tons/yr), therefore the PSD permitting program does not currently apply to the facility.

4.1.4 Title IV Acid Rain Provisions

Title IV of the federal Clean Air Act regulates SO_2 and NO_x emissions from fossil fuel-fired electrical generation facilities. The landfill is not subject to the requirements of the Acid Rain Program because it neither generates nor sells electricity.

4.1.5 Title V Operating Permit

Title V of the federal Clean Air Act requires facilities with the annual potential to emit more than 100 tons of a regulated criteria pollutant, 10 tons of a single HAP, or 25 tons of all HAPs combined to obtain a Title V Operating Permit. Cheyne Landfill does not have the potential to exceed regulated pollutant or HAP emission rate thresholds. However, Cheyne Landfill is subject to NSPS subpart WWW. As part of the NSPS subpart WWW (described in section 4.1.2 above), Cheyne Landfill becomes subject to the requirements of the Title V Air Operating Permit (AOP) program, and requires the submittal of an AOP application within 12 months of commencing construction on the CLF expansion.

4.1.6 Compliance Assurance Monitoring

The 40 CFR part 64 Compliance Assurance Monitoring (CAM) program applies to pollutant specific emission units that employ an active control device to achieve compliance with an enforceable emission limit. 40 CFR 64.2 establishes the three applicability criteria for the CAM program:

- The unit is subject to an emission limit,
- The unit uses a control device to achieve compliance with that limit, and
- The unit has pre-control emissions ≥ 100 percent of the major source threshold.

CAM requirements do not apply to CLF because the facility does not currently have any kind of pollution control device and because pre-control emissions are less than major source thresholds.

4.2 State Requirements

4.2.1 Notice of Construction Permits

Washington State requires new or modified industrial sources to obtain a NSR air quality permit. The NSR permit application must provide a description of the project, an inventory of pollutant emissions, and proposed control systems for the applicable pollutants. The reviewing agency considers whether BACT has been employed and evaluates ambient concentrations resulting from these emissions to ensure compliance with ambient air quality standards. As stated in WAC 173-400-113, a NSR permit cannot be granted unless the agency determines the project (1) will meet applicable state and federal emission limits; (2) will employ BACT; and (3) will not cause or contribute to violations of ambient air quality standards or TAP increments.

Washington State and the YRCAA require authorization via permit prior to construction or modification of non-exempt air contaminant emission sources. This notice of construction program is administered in Yakima County by the YRCAA. YRCAA NSRP-27-CLF-08 incorporates requirements for the CLF expansion project and is presented herein as applicable requirements. Yakima County will continue to comply with the requirements of the YRCAA

permitting regulation, and will submit a new source review (NSR) application before constructing any new sources or modifying any existing sources for which permit approval would be required.

4.2.2 Air Operating Permit

Please see discussion of the federal Title V Air Operating Permit program in Section 4.1.5.

4.2.3 General Requirements

Procedural requirements, prohibitive limitations, and general emission standards applicable to the subject facility via the YRCAA Regulation and Washington Administrative Code are included in this application in Form C-3 of Appendix A.

5. Compliance Certification

Form C-3 in Appendix A provides a summary of regulations applicable to the landfill. Form C4 assesses Yakima County's current compliance status for each applicable requirement. The CLF is currently in compliance with all applicable air quality regulations.

WAC 173-401-510(2)(i)(iii) mandates that the applicant provide a schedule for submitting future compliance certifications during the Title V permit term. Yakima County proposes to submit a compliance certification once annually and that this schedule corresponds with the calendar year. As such, Yakima County proposes that each annual certification period will start January 1 and end December 31 of each year, and that the annual certification will be submitted within 105 days after the end of the calendar year. Yakima County proposes to submit the CLF's first annual compliance certification 105 days after the end of the calendar year the Title V permit is issued.

WAC 173-401-615(3) mandates semi-annual reporting of all required monitoring as well as permit deviations. Yakima County proposes that the semi-annual reporting periods end June 30 and December 31 of each year and that the semi-annual reports will be submitted within 105 days of the end of each reporting period. Yakima County will combine the annual compliance certification with the second semi-annual monitoring report of each year.

6. Compliance Plan and Schedule

The CLF is currently in compliance with all applicable air quality requirements. The facility will monitor its future compliance using the methods for compliance demonstration described in Form C-3 in Appendix A.

Yakima County is not aware of any potentially applicable federal or state requirements other than greenhouse gas regulations, which will become effective during the term of the Title V operating permit. However, if any applicable requirements take affect during the facility's Title V operating permit term, Yakima County will meet the applicable requirement as expeditiously as possible. If an applicable requirement with a specific timeline for compliance becomes effective during the permit term, Yakima County will comply with the requirement on the schedule established by the requirement.

FIGURES

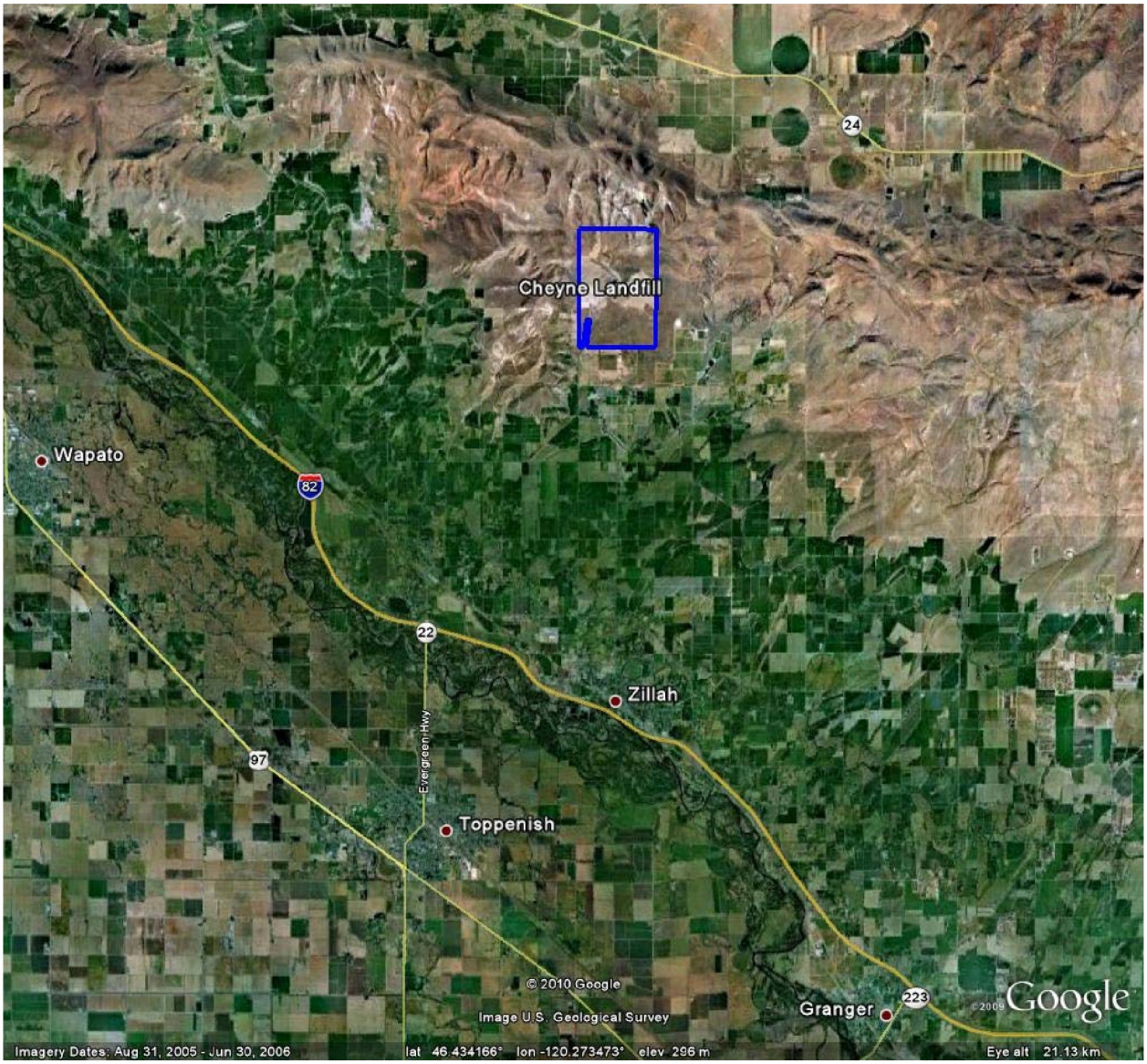


Figure 1-1. Cheyne Landfill – Facility Location

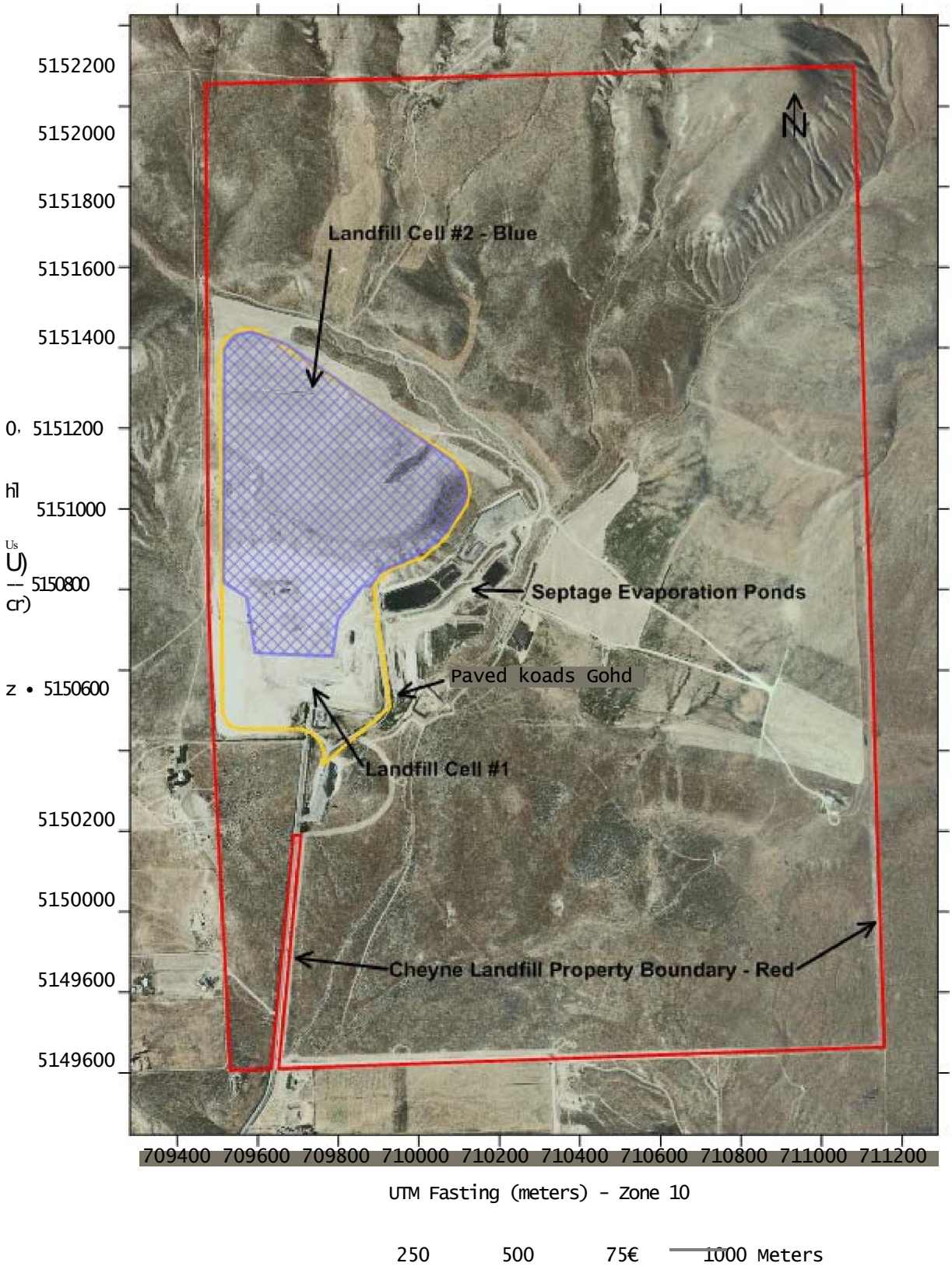


Figure 2-1. Cheyne Landfill — Site Layout

APPENDICES

APPENDIX A

YRCAA Air Operating Permit Application Forms

Form A-1: General Information and Certification

1. Company Name: Yakima County Public Services – Solid Waste Division
2. Plant or Facility Name: Cheyne Landfill
3. Unified Business Identification Number (UBI#): 91-6001387
4. Facility Address: 4970 Cheyne Road
   City: Zillah, Washington
5. Mailing Address: (if different than the above) 7151 Roza Hill Drive, Yakima, Washington 98901
6. Owner: Yakima County Solid Waste Division
   Parent Company: Not Applicable
7. Facility contact who is familiar with the information contained in this application.
   Name: Wendy Mifflin
   Title: Solid Waste Manager
   Telephone: (509) 574-2450
8. Type of operating permit application: (check all that apply)

   ; Initial permit application — Permit modification application
   — Renewed permit application — Other (specify):

9. Reason for Application: Required by New Source Performance Standard, Subpart WWW (40CFR60.752(b)) based on design capacity of Cheyne Landfill.

10. Claim of Confidentiality:

    Some of the records and information contained in this application (check one) are ; **are not** unique to the applicant and/or are likely to adversely affect the competitive position of the applicant if released to the public or a competitor. If a claim of confidentiality is made for this application, provide a separate application for general distribution which is devoid of confidential information.

11. Certification:

    I certify that I am the responsible official, as defined in WAC 173-401-200(27) for this facility. I further certify as required by WAC 173-401-520, that, based on information and belief formed after reasonable inquiry, the statements and information in this application are true, accurate, and complete.

Signature of Responsible Official Date Title
Printed Name: Wendy Mifflin
Title: Solid Waste Manager
Phone Number: 509-574-2455
Mailing Address: 7151 Roza Hill Drive, Yakima, Washington 98901

Form B-1: Facility SIC Codes and Associated Principal Products

Facility Name: Cheyne Landfill

Confidentiality Claim? Yes No (circle one)

Principal Product Name	Principal Product Description	Maximum Annual Production	UOM*	SIC Code	SIC Description
Operation of Sanitary Landfill	Disposal of Municipal Solid Waste (MSW)	Design capacity of landfill is 8.2 million tons	Tons	4953	Refuse Systems

*UOM = Units of Measure

Form B-2: Process Information

Facility Name: Cheyne Landfill
Confidentiality Claim? Yes No (circle one)

Process Number	Process Name	SIC Code	Process Description
1	Facility-Wide	NA	Facility-Wide Activities
2	MSW Landfill (Cells #1 and #2)	4953	Landfilling Municipal Solid Waste (MSW) (Cells #1 and #2)
3	MSW Landfill Cell #2	4953	Landfilling MSW in Cell #2 (NSRP-27-CLF-08)

Form B-3: Raw Materials Used by Processes

Facility Name: Cheyne Landfill

Confidentiality Claim? Yes No (circle one)

Number of Process Using Raw Material	Raw Material Name/Description	Maximum Annual Use	UOM
1	MSW (Design capacity of entire landfill)	8.2	Million tons
2	MSW (Design capacity of only Cell #2)	6.4	Million tons

Form B-4: Fuels Used by Processes

Facility Name: Cheyne Landfill
Confidentiality Claim? Yes No (circle one)

Number of Process Using Fuel	Fuel Name/Description*	Maximum Annual Use	UOM
NA	Not Applicable	NA	NA

*Indicate if it is a primary, back-up, or emergency fuel.

Form C-1: Plant Operational Characteristics, Emission Point Descriptions

Facility Name: Cheyne Landfill

Process #	Discharge Point #	Emission Point #	Emission Point Description	SCC Code (# Factor Used)	Control Equipment Code	
2	1 (Fugitive)	1 (Fugitive)	Landfill gas (LFG) generated by Cell #1 and Cell #2	50100402	--	--
					--	--

Form C-2: Regulations and Regulated Emissions

Facility Name: Cheyne Landfill
Process #: 2

Discharge Point #	Generation Point #	Emissions (lb/yr)			Compliance Assurance Monitoring (CAM)		Attachment #
		Pollutants or Regulatory Requirement	Annual Potential Emissions a	2009 Actual Emissions	Potential Emissions without regard to control Device	CAM needed? (yes or no)	
1	1	1,1,1-Trichloroethane (methyl chloroform)	138.8	20.7	138.8	No	App. B
1	1	1,1,2,2-Tetrachloroethane	400.3	60.3	400.3	No	App. B
1	1	1,1-Dichloroethane (ethylidene dichloride)	515.0	75.2	515.0	No	App. B
1	1	1,1-Dichloroethene (vinylidene chloride)	42.0	6.3	42.0	No	App. B
1	1	1,2-Dichloroethane (ethylene dichloride	88.0	13.1	88.0	No	App. B
1	1	1,2-Dichloropropane (propylene dichloride)	44.1	6.6	44.1	No	App. B
1	1	2-Propanol (isopropyl alcohol)	6516.2	973.9	6516.2	No	App. B
1	1	Acrylonitrile	460.2	108.6	460.2	No	App. B
1	1	Benzene	321.8	48.2	321.8	No	App. B
1	1	Carbon disulfide	95.7	14.3	95.7	No	App. B
1	1	Carbon monoxide	8501.9	1277.2	8501.9	No	App. B
1	1	Carbon tetrachloride	1.3	0.2	1.3	No	App. B
1	1	Carbonyl sulfide	63.8	9.5	63.8	No	App. B
1	1	Chlorobenzene	61.0	9.1	61.0	No	App. B
1	1	Chlorodifluoromethane	243.7	36.4	243.7	No	App. B
1	1	Chloroethane (ethyl chloride)	181.9	26.1	181.9	No	App. B
1	1	Chloroform	7.8	1.2	7.8	No	App. B
1	1	Chloromethane	131.4	19.8	131.4	No	App. B

Form C-2: Regulations and Regulated Emissions

Facility Name: Cheyne Landfill
Process #: 2

Discharge Point #	Generation Point #	Emissions (lb/yr)			Compliance Assurance Monitoring (CAM)		Attachment #
		Pollutants or Regulatory Requirement	Annual Potential Emissions a	2009 Actual Emissions	Potential Emissions without regard to control Device	CAM needed? (yes or no)	
1	1	Dichlorobenzene	66.9	10.0	66.9	No	App. B
1	1	Dichloromethane (methylene chloride)	2578.2	392.8	2578.2	No	App. B
1	1	Ethylbenzene	1058.8	158.3	1058.8	No	App. B
1	1	Ethylene dibromide	0.4	0.1	0.4	No	App. B
1	1	Hexane	1233.2	183.1	1233.2	No	App. B
1	1	Hydrogen sulfide	2660.0	391.3	2660.0	No	App. B
1	1	Mercury (total)	0.1	0.02	0.1	No	App. B
1	1	Methyl ethyl ketone	1110.0	165.3	1110.0	No	App. B
1	1	Methyl isobutyl ketone	412.6	60.6	412.6	No	App. B
1	1	Perchloroethylene (tetrachloroethylene)	1330.3	200.0	1330.3	No	App. B
1	1	Toluene	7790.1	1170.9	7790.1	No	App. B
1	1	Trichloroethylene (trichloroethene)	797.7	119.8	797.7	No	App. B
1	1	Vinyl chloride	989.2	148.4	989.2	No	App. B
1	1	Xylenes	2762.0	415.4	2762.0	No	App. B

Notes:
a – Annual Potential Emission Rates based on projected annual LFG acceptance rates and LFG production in year 2040.

Form C-2: Regulations and Regulated Emissions

Facility Name: Cheyne Landfill
Process #: 3 (Cell #2 of Landfill)

Discharge Point #	Generation Point #	Emissions (lb/yr)			Compliance Assurance Monitoring (CAM)		Attachment #
		Pollutants or Regulatory Requirement	Annual Potential Emissions a	2009 Actual Emissions b	Potential Emissions without regard to control Device	CAM needed? (yes or no)	
1	1	Acrylonitrile	57.3	--	57.3	No	--
1	1	Hydrogen sulfide	162.5	--	162.5	No	--
1	1	Vinyl chloride	45.7	--	45.7	No	--

Notes:

a – All annual potential emission rates for Cell #2 are included in emission calculations for the entire MSW landfill (presented in Process #2 table above). The NSR permit for Cell #2 (NSRP-27-CLF-08) has specific emission limits for three toxic air pollutants emitted by Cell #2 (acrylonitrile, hydrogen sulfide, and vinyl chloride). The potential emission rates presented in this table represent the permit emission limits for Cell #2.

b – Cell #2 at Cheyne Landfill is currently under construction and has not accepted any MSW.

Form C-3: Applicable Requirements

Facility Name: _Cheyne Landfill_____

Confidentiality Claim? Yes No (circle one)

Process #: _1_

Applicable Requirement Identifier	Applicable Requirement	State Only?	Required Monitoring Recordkeeping & Reporting	Proposed Monitoring Recordkeeping & Reporting Adequate to Assure Compliance
WAC 173-400-110 WAC 173-460	New Source Review (applicable when triggered) – The permittee shall not construct or modify a source which is required to be reviewed under WAC 173-400-110 or WAC 173-460 without first receiving an approval or permit under such provisions. Portable sources may be exempt from this requirement if they fulfill the criteria described.	No	None	None
WAC 173-400-035	Portable and Temporary Sources (applicable when triggered) – The permittee shall notify YRCAA of intent to operate a portable or temporary source at a new location and provide sufficient information for YRCAA to determine compliance with emission standards and ambient air quality standards.	No	None	None

Form C-3: Applicable Requirements

Facility Name: _Cheyne Landfill_____

Confidentiality Claim? Yes No (circle one)

Process #: _1_

Applicable Requirement Identifier	Applicable Requirement	State Only?	Required Monitoring Recordkeeping & Reporting	Proposed Monitoring Recordkeeping & Reporting Adequate to Assure Compliance
WAC 173-400-040(7)	Concealment and Masking – No person shall cause or permit the installation or use of any means which conceals or masks an emission of an air contaminant.	No	None	None
40 CFR 82.150, Subparts B and F YRCAA Reg.1 Sec.3.06	Protection of Stratospheric Ozone – the permittee shall comply with the standards for recycling and emissions reduction as provided in 40 CFR Part 82, Subparts B and F.	No	Maintain all applicable records and submit required reports according to 40 CFR 82.166	Maintain all applicable records and submit required reports according to 40 CFR 82.166

Form C-3: Applicable Requirements

Facility Name: _Cheyne Landfill_____

Confidentiality Claim? Yes No (circle one)

Process #: _1_

Applicable Requirement Identifier	Applicable Requirement	State Only?	Required Monitoring Recordkeeping & Reporting	Proposed Monitoring Recordkeeping & Reporting Adequate to Assure Compliance
WAC 173-400-105(7 & 8)	Misrepresentation and Tampering (a) The permittee shall not make any false material statement, representation or certification in any form, notice, or report.(b) The permittee shall not render inaccurate any monitoring device or method required under Chapter 70.04 RCW, or any ordinance, resolution, regulation, permit, or order in force pursuant thereto.	No	None	None
40 CFR 68	Chemical Accident Prevention (applicable when triggered) -The permittee shall comply with the requirements for preparation and implementation of a plan to address potential chemical releases as provided in 40 CFR 68.	No	None	None

Form C-3: Applicable Requirements

Facility Name: _Cheyne Landfill_____
Confidentiality Claim? Yes No (circle one)
Process #: _1_

Applicable Requirement Identifier	Applicable Requirement	State Only?	Required Monitoring Recordkeeping & Reporting	Proposed Monitoring Recordkeeping & Reporting Adequate to Assure Compliance
WAC 173-400-107	Deviations from Permit Conditions - Deviations from permit requirements shall be reported no later than thirty days after the end of the month during which the deviation is discovered. Deviations that represent a potential threat to human health or safety shall be reported as soon as possible but no later than twelve hours after the deviation is discovered. Reports of deviations shall include: (a) Identification of the emission unit(s) involved; (b) The duration of the event including the beginning and end times; and (c) A brief description of the event, including: (i) Whether or not the deviation was due to an upset condition; (ii) The probable cause of the deviations; and (iii) The corrective action taken and when the corrective action was initiated.	No	None	None

Form C-3: Applicable Requirements

Facility Name: _Cheyne Landfill_____
Confidentiality Claim? Yes No (circle one)
Process #: _1_

Applicable Requirement Identifier	Applicable Requirement	State Only?	Required Monitoring Recordkeeping & Reporting	Proposed Monitoring Recordkeeping & Reporting Adequate to Assure Compliance
WAC 173-400-040(1)	Visible Emissions – Opacity shall not exceed 20% for any period aggregating more than 3 minutes in any sixty-minute period.	No	Visual Survey	Quarterly inspections of facility emission units for visible emissions. If visible emissions are observed, within 24 hours of initial observation record opacity using EPA Method 9 or 22 and take corrective action until visible emission are below visible emission requirement.
NSRP-27-CLF-08, Conditions 2.4 & 2.5	Visible Emissions (Landfill Operations) – Visible emissions due to landfill operations shall not exceed 5 percent opacity at the property boundary	No	EPA Method 9, 40 CFR 60, Appendix A	Quarterly visible emission surveys at property boundary. If visible emissions are observed, within 24 hours of initial observation record opacity using EPA Method 9. If opacity is greater than 5 percent, stop operation and verify operation is performing according to its design function and operating according to O&M Plan. If unit is not operating according to design and O&M plan, take corrective action within 48 hours to correct problem, and verify compliance with opacity limit within 48 hours of initial observations.

Form C-3: Applicable Requirements

Facility Name: _Cheyne Landfill_____

Confidentiality Claim? Yes No (circle one)

Process #: _1_

Applicable Requirement Identifier	Applicable Requirement	State Only?	Required Monitoring Recordkeeping & Reporting	Proposed Monitoring Recordkeeping & Reporting Adequate to Assure Compliance
WAC 173-400-040(6)	Sulfur Dioxide – Shall not emit SO_2 in excess of 1,000 ppmv (dry) corrected to 7 percent O_2 for combustion sources (60 minute average).	No	None Reference Method 40 CFR 60, Appendix A	None, no reasonable possibility of exceeding this standard.
WAC 173-400-050(1) and (3)	Emission Standards for Combustion and Incineration Units – Emissions of particulate matter from combustion sources shall not exceed 0.1 gr/dscf corrected to 7 percent oxygen.	No	None Reference 40CFR Part 60, Appendix A, Method 5	Quarterly inspections of facility for visible emissions. If visible emissions are observed, within 24 hours of initial observation record opacity using EPA Method 9 or 22 and take corrective action until visible emission are below visible emission requirement.
WAC 173-400-060	Emission Standards for General Process – Emissions of particulate matter from any general process shall not exceed 0.1 gr/dscf.	No	None Reference 40CFR Part 60, Appendix A, Method 5	Quarterly inspection of facility for visible emissions. If visible emissions are observed, within 24 hours of initial observation record opacity using EPA Method 9 or 22 and take corrective action until visible emission are below visible emission requirement.

Form C-3: Applicable Requirements

Facility Name: _Cheyne Landfill_____

Confidentiality Claim? Yes No (circle one)

Process #: _1_

Applicable Requirement Identifier	Applicable Requirement	State Only?	Required Monitoring Recordkeeping & Reporting	Proposed Monitoring Recordkeeping & Reporting Adequate to Assure Compliance
WAC 173-400-040(2)	Fallout – Off-site deposition of particulate matter, in sufficient quantity to interfere with the use and enjoyment of the property upon which it is deposited, is prohibited.	No	None	Promptly investigate complaints received by YRCAA or Yakima County Solid Waste. If the complaint is determined to be valid, corrective action shall commence as soon as possible. Maintain records of all complaints received, including: date and time of complaint; nature of complaint; wind direction during time of complaint; and date, time, and nature of corrective action taken. Notify YRCAA within seven days of receipt of any complaint.
WAC 173-400-040(3)(a)	Fugitive Emissions – Sources engaged in materials handling, construction, demolition, or other such activities shall take reasonable precautions to prevent the release of fugitive emissions.	No	None	
WAC 173-400-040(4)	Odors – Source may not generate odors which may unreasonably interfere with property use and must use recognized good practice and procedures to reduce odors to a reasonable minimum.	No	None	
WAC 173-400-040(5) NSRP-27-CLF-08, Condition 3.5	Emissions Detrimental to Persons or Property – No person shall cause or allow the emission of any air contaminant from any source if it is detrimental to the health, safety, or welfare of any person, or causes damage to property or business.	No	None	
WAC 173-400-040(8) NSRP-27-CLF-08, Condition 2.6	Fugitive Dust – Source shall take reasonable precautions to prevent the release of fugitive emissions.	No	None	

Form C-3: Applicable Requirements

Facility Name: _Cheyne Landfill_____

Confidentiality Claim? Yes No (circle one)

Process #: _1_

Applicable Requirement Identifier	Applicable Requirement	State Only?	Required Monitoring Recordkeeping & Reporting	Proposed Monitoring Recordkeeping & Reporting Adequate to Assure Compliance
WAC 173-400-105(1)	Emission Inventory Reports – The permittee shall submit an inventory of annual emissions to YRCAA within 105 days after the end of the calendar year.	No	Annual Emission Report	None
WAC 173-401 YRCAA Regulation 1, Section 4.04	Air Operating Permit – Requires the owner or operator to apply for an air operating permit consistent with Title V or Federal Clean Air Act within 12 months of commencing operations as a major source.	No	None	None
WAC 173-400-720	Prevention of Significant Deterioration – No major source or major modification to a major source shall begin actual construction without receiving a PSD permit	No	None	None
WAC 173-400-200	Creditable Stack Height and Dispersion Techniques	No	None	None
WAC 173-400-205	Adjustment for atmospheric conditions – Varying the rate of pollutant according to atmospheric conditions or ambient concentrations of that pollutant is prohibited, except as directed according to air pollution episode regulations.	No	None	None

Form C-3: Applicable Requirements

Facility Name: _Cheyne Landfill_____
Confidentiality Claim? Yes No (circle one)
Process #: _1_

Applicable Requirement Identifier	Applicable Requirement	State Only?	Required Monitoring Recordkeeping & Reporting	Proposed Monitoring Recordkeeping & Reporting Adequate to Assure Compliance
NSRP-27-CLF-08, Condition 2.3	O&M Plan – Develop O&M Plan including: 1) Maintenance schedule for each emission unit; 2) Landfill cell management specifications; 3) Fugitive Dust Control Plan; 4) Odor Impact Minimization Plan; and 5) Record of review for each plan. The O&M Plan shall be reviewed and updated at least once per calendar year. The O&M Plan shall be kept on-site and made available upon request.	No	Review and update O&M Plan once per calendar year.	Records shall be kept of the date of and personnel who performed review.
NSRP-27-CLF-08, Condition 2.7	Paved Roads – All areas on which travel by waste hauling vehicles routinely occurs shall be paved, except within 150 feet of an existing or planned cell. Paved areas shall be regularly cleaned and swept. All other roadways shall be covered with crushed stone regularly controlled with water and/or chemical dust suppressants.	No	None	Comply with O&M Plan.

Form C-3: Applicable Requirements

Facility Name: _Cheyne Landfill_____
Confidentiality Claim? Yes No (circle one)
Process #: _1_

Applicable Requirement Identifier	Applicable Requirement	State Only?	Required Monitoring Recordkeeping & Reporting	Proposed Monitoring Recordkeeping & Reporting Adequate to Assure Compliance
NSRP-27-CLF-08, Condition 2.8	Track Out - Track out shall be minimized for all vehicles leaving the site. This may include tire washing, road sweeping, road washing or other methods, as needed.	No	None	Comply with O&M Plan.
NSRP-27-CLF-08, Condition 2.9 YRCAA Reg.1 Sec.3.03 WAC 173-	Outdoor Burning - No outdoor burning shall be conducted on-site, unless authorized in writing by YRCAA.	No	None	None
NSRP-27-CLF-08, Condition 2.10	Petroleum Contaminated Soil Acceptance - No Petroleum Contaminated Soils (PCS) with hydrocarbon concentration levels exceeding the Method A Soil Cleanup Levels specified in WAC 173-340 (Model Toxics Control Act Cleanup Regulation) shall be accepted at Cheyne Landfill unless specific written approval is obtained from YRCAA.	No	None	Maintain records, including TPH analyses, for each batch of soil accepted. A “batch” is soils originating from the same excavation.
NSRP-27-CLF-08, Condition 2.12	Access to facility - Access to the source by the USEPA or YRCAA shall be permitted upon request for the purposes of compliance assurance inspections.	No	None	None

Form C-3: Applicable Requirements

Facility Name: _Cheyne Landfill_____
Confidentiality Claim? Yes No (circle one)
Process #: _1_

Applicable Requirement Identifier	Applicable Requirement	State Only?	Required Monitoring Recordkeeping & Reporting	Proposed Monitoring Recordkeeping & Reporting Adequate to Assure Compliance
NSRP-27-CLF-08, Condition 5.3	Recordkeeping - The permittee shall record the daily number of hours of landfill operation, tons of refuse accepted, time, location, and duration of excess opacity events, receipt of odor nuisance complaints. The permittee shall retain all required records for at least the past five years from any present time. Records shall be reasonably accessible to YRCAA and be made available upon request. Records of periodic activities performed to comply with this permit shall include at minimum the date and time of performance and the name of the operator performing the activity.	No	None	Electronic and/or paper format records will be maintained to be retrievable within 4 hours.
NSRP-27-CLF-08, Condition 2.2	Comply with all applicable local, state, and federal regulations	No	None	As provided in this Title V application.
NSRP-27-CLF-08, Condition 3.1 (General Condition)	The provisions of this order of approval are severable and, if any provision or application of any provision to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this order of approval, shall not be affected thereby.	No	None	None

Form C-3: Applicable Requirements

Facility Name: _Cheyne Landfill_____
Confidentiality Claim? Yes No (circle one)
Process #: _1_

Applicable Requirement Identifier	Applicable Requirement	State Only?	Required Monitoring Recordkeeping & Reporting	Proposed Monitoring Recordkeeping & Reporting Adequate to Assure Compliance
NSRP-27-CLF-08, Condition 3.2 (General Condition)	Authorization of this permit (NSRP-27- CLF-08) maybe modified, suspended or revoked in whole or part for cause including, but not limited to, the following: • Violation of any terms or conditions of this authorization; and • Obtaining this authorization by misrepresentation or failure to disclose fully all relevant facts.	No	None	None
NSRP-27-CLF-08, Condition 3.3 (General Condition)	All required records must be maintained at the facility site or other accessible location when requested by the office of Air Pollution Control Officer (APCO) of YRCAA or his representative.	No	None	None
NSRP-27-CLF-08, Condition 3.4 (General Condition)	All plans, specifications, other information and any further authorizations or approvals or denials in relation to this project, shall be incorporated herein and made a part of YRCAA file and the permit.	No	None	None

Form C-3: Applicable Requirements

Facility Name: _Cheyne Landfill_____
Confidentiality Claim? Yes No (circle one)
Process #: _1_

Applicable Requirement Identifier	Applicable Requirement	State Only?	Required Monitoring Recordkeeping & Reporting	Proposed Monitoring Recordkeeping & Reporting Adequate to Assure Compliance
NSRP-27-CLF-08, Condition 3.6 (General Condition)	Nothing in this Order shall be construed so as to relieve the facility/permittee of its obligations under any state, local, or federal laws or regulations.	No	None	None
NSRP-27-CLF-08, Condition 3.7 (General Condition)	It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order.	No	None	None
NSRP-27-CLF-08, Condition 3.8 (General Condition)	It shall be the responsibility of the permittee to determine the applicability, timing and emission rate and meet the requirements for LFG collection system and apply for NSR.	No	None	None

Form C-3: Applicable Requirements

Facility Name: _Cheyne Landfill_____
Confidentiality Claim? Yes No (circle one)
Process #: _1_

Applicable Requirement Identifier	Applicable Requirement	State Only?	Required Monitoring Recordkeeping & Reporting	Proposed Monitoring Recordkeeping & Reporting Adequate to Assure Compliance
NSRP-27-CLF-08, Condition 3.9 (General Condition)	Permit requirements apply to the facility owner and/or operator(s) and any contractor or subcontractor performing any activity authorized under this permit. Any person(s), including contractor(s) and/or subcontractor(s), not in compliance with the applicable permit requirements are in violation of State and local laws and subject to appropriate civil and criminal penalties. The facility owner and/or operator, and all contractor(s) or subcontractor(s) are liable for the actions and violations of their employee(s). Any violation committed by a contractor or subcontractor shall be considered a violation by the facility owner and/or operator, and is also a violation by the contractor and/or any subcontractor(s).	No	None	None

Form C-3: Applicable Requirements

Facility Name: _Cheyne Landfill_____
Confidentiality Claim? Yes No (circle one)
Process #: _1_

Applicable Requirement Identifier	Applicable Requirement	State Only?	Required Monitoring Recordkeeping & Reporting	Proposed Monitoring Recordkeeping & Reporting Adequate to Assure Compliance
NSRP-27-CLF-08, Condition 3.10 (General Condition)	The laws and regulations may be superseded or revised without notice. It is the permittee's responsibility to stay current with these changes governing their business and therefore is expected to comply with all new laws and regulations immediately upon their effective date. Laws and regulation updates will be incorporated into existing permits or upon renewal of said permits.	No	None	None

Form C-3: Applicable Requirements

Facility Name: _Cheyne Landfill_____
Confidentiality Claim? Yes No (circle one)
Process #: _2_

Applicable Requirement Identifier	Applicable Requirement	State Only?	Required Monitoring Recordkeeping & Reporting	Proposed Monitoring Recordkeeping & Reporting Adequate to Assure Compliance
40 CFR 60.7(a)(4), 60.7(b), 60.7(f)	Notification and Recordkeeping - Notification of any physical or operational change to the existing facility which may increase the emissions of a pollutant to which as standard applies. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of a facility subject to a NSPS. Maintain a file of all measurements, maintenance, reports, and performance testing results required by applicable NSPS in a permanent location suitable for inspection.	No	None	Shall provide written notification of any physical or operation change which may increase the emission rate of any air pollutant for which a NSPS applies.
40 CFR 60.11(d)	Minimize Emissions - Maintain and operate any affected emission unit with good air pollution control practice for minimizing emissions.	No	None	None
40 CFR 60.12	Circumvention - No owner or operator may conceal emissions which would constitute a violation of an applicable NSPS.	No	None	None
NSRP-27-CLF-08, Condition 5.6	If a landfill gas collection and control system is required, a NSR application shall be submitted and approved by YRCAA prior to installation.	No	None	None

Form C-3: Applicable Requirements

Facility Name: _Cheyne Landfill_____

Confidentiality Claim? Yes No (circle one)

Process #: _2_

Applicable Requirement Identifier	Applicable Requirement	State Only?	Required Monitoring Recordkeeping & Reporting	Proposed Monitoring Recordkeeping & Reporting Adequate to Assure Compliance
40 CFR 60.752(b), 60.754(a), 60.757(b); WAC 173-400-070(9) NSRP-27-CLF-08, Condition 5.4 & 5.5	NMOC Emission Rate Calculation and Submittal for MSW Landfill -Calculate the NMOC emission rate for the landfill according to 40 CFR 60.754(a)(1). If the calculated NMOC emission rate is less than 50 Mg/yr, the landfill owner shall recalculate the NMOC emission rate and submit emission reports to the Administrator until such time as the calculated NMOC emission rate is ≥ 50 Mg/yr, or the landfill is closed.	No	Submit an NMOC emission rate report to YRCAA and EPA (1) annually, or (2) each 5-year period according to 40 CFR 60.757(b)(1)(ii) Tier II testing (conducted May 5 – 7, 2010) resulted in site-specific C_{NMOC} = 425 ppmv as hexane. Submitted 5-year NMOC emission report to YRCAA on July 1, 2010.	Submit an NMOC emission rate report to YRCAA and EPA either on an annual basis or every five years (covering projected annual NMOC emissions for the next five years) according to 40 CFR 60.757(b)(1)(ii)
40 CFR 60.757(a)(3) WAC 173-400-070(9) NSRP-27-CLF-08, Condition 5.5	Amended Design Capacity Report - An amended design capacity report shall be submitted to the Administrator providing notification of any increase in the design capacity of the landfill.	No	The amended design capacity report for CLF was submitted on January 20, 2010.	If triggered, the amended design capacity report will be submitted to YRCAA and EPA.
40 CFR 60.758(a) WAC 173-400-070(9)	MSW Landfill Recordkeeping - Keep for at least 5 years up-to-date, readily accessible, records of the latest design capacity report, the current amount of solid waste in place, and the year-by-year waste acceptance rate.	No	Keep for at least 5 years up-to-date, readily accessible, records of the latest design capacity report, the current amount of solid waste in place, and the year-by-year waste acceptance rate.	Electronic and/or paper format records will be maintained to be retrievable within 4 hours.

Form C-3: Applicable Requirements

Facility Name: _Cheyne Landfill_____

Confidentiality Claim? Yes No (circle one)

Process #: _2_

Applicable Requirement Identifier	Applicable Requirement	State Only?	Required Monitoring Recordkeeping & Reporting	Proposed Monitoring Recordkeeping & Reporting Adequate to Assure Compliance
40 CFR 61 Subpart M YRCAA Reg1 Sec3.07	Asbestos – the permittee shall comply with provisions of YRCAA Regulation 1, Section 3.07.	No	None	None
40 CFR 61.154(a), (c), (d)	In any active waste disposal site where asbestos-containing waste material has been deposited: (1) no visible emissions to the outside air; OR, (2) cover with ≥ 6 inches of compacted non-asbestos containing material at the end of each operating day; OR, (3) cover with a chemical dust suppression agent (not to include any used, spent, or other waste oil) at the end of each operating day.	No	None	None
40 CFR 61.154(f)	Maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal area on a map or diagram of the disposal area.	No	None	None
40 CFR 61.154(i)	Furnish upon request, and make available during normal business hours for inspection by the Administrator, all records required by the Asbestos NESHAP.	No	None	None
40 CFR 61.154(j)	Notify Administrator in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at the site and is covered.	No	None	Notification shall include: (1) scheduled starting and completion dates; AND, (2) reason for disturbing waste; AND, (3) emission control procedures to be implemented; AND, (4) location of any temporary storage site and the final disposal site.

Form C-3: Applicable Requirements

Facility Name: _Cheyne Landfill_____
Confidentiality Claim? Yes No (circle one)
Process #: _2_

Applicable Requirement Identifier	Applicable Requirement	State Only?	Required Monitoring Recordkeeping & Reporting	Proposed Monitoring Recordkeeping & Reporting Adequate to Assure Compliance
40 CFR 61.154(e)	Maintain waste shipment records for all asbestos-containing waste material received – Waste shipment records shall include: (1) name, address, and telephone number of the waste generator; AND, (2) name, address, and telephone number of the transporter(s); AND, (3) volume of waste; AND, (4) presence of improperly enclosed (leak-tight containers) or uncovered; AND, (5) date of waste receipt. Send a copy of the signed waste shipment record to the waste generator within 30 days of receipt of the waste. If significant amount of improperly enclosed or uncovered waste, report in writing (with copy of waste shipment record) to asbestos NESHAP program Administrator for the waste generator (as indicated in the waste shipment record), YRCAA and EPA by the following working day. Submit reports (with copy of waste shipment record) of un-reconciled waste quantity discrepancies within 15 days of waste receipt to YRCAA and EPA. Maintain required records foratleast2years	No	Maintain all required records for at least 2 years. Submit all applicable reports to appropriate asbestos NESHAP program Administrators.	Maintain all required records for at least 2 years. Submit all applicable reports to appropriate asbestos NESHAP program Administrators.

Form C-3: Applicable Requirements

Facility Name: _Cheyne Landfill_____
Confidentiality Claim? Yes No (circle one)
Process #: _2_

<table>
<tr><th>Applicable Requirement Identifier</th><th>Applicable Requirement</th><th>State Only?</th><th>Required Monitoring Recordkeeping & Reporting</th><th>Proposed Monitoring Recordkeeping & Reporting Adequate to Assure Compliance</th></tr>
<tr><td>40 CFR 61.154(b)</td><td>Areas of disposal of asbestos-containing waste material must: (1) have a natural barrier that adequately deters access by the general public; OR, (2) cover with ≥6 inches of compacted non-asbestos containing material at the end of each operating day; OR, (3) install warning signs and fencing that meet the following: (a) display signs at all entrances and at intervals of ≤330 feet; AND, (b) signs posted such that legend is easily read; AND, (c) 20" x 14" upright format signs; AND, (d) sign legend, size, and style at least equal to (spacing between lines must be at least equal to the height of the upper text line):
<table>
<tr><td>Legend</td><td>Notation</td></tr>
<tr><td>Asbestos Waste Disposal</td><td>1 inch Sans Serif, Gothic, or</td></tr>
<tr><td>Do Not Create Dust</td><td>3/4 inch Sans Serif, Gothic, or</td></tr>
<tr><td>Breathing Asbestos is Hazardous to Your Health</td><td>14 point Gothic</td></tr>
</table>
AND, (e) fenced in a manner adequate to deter access by the general public.</td><td>No</td><td>None</td><td>None</td></tr>
</table>

Form C-3: Applicable Requirements

Facility Name: _Cheyne Landfill_____

Confidentiality Claim? Yes No (circle one)

Process #: _3_

Applicable Requirement Identifier	Applicable Requirement	State Only?	Required Monitoring Recordkeeping & Reporting	Proposed Monitoring Recordkeeping & Reporting Adequate to Assure Compliance
NSRP-27-CLF-08, Condition 2.1	Expansion must satisfy BACT and T-BACT - Comply with NSPS Subpart WWW requirements; develop and implement an Operation and Maintenance (O&M) plan for CLF; and operate in accordance with landfill design and O&M plan.	No	None	Continue to comply with NSPS Subpart WWW as detailed in this Title V application. The O&M plan will be maintained on-site and made available upon request.
NSRP-27-CLF-08, Condition 2.11	Cell #2 and Septage Lagoons - This Order of Approval permit authorizes Cheyne Landfill expansion for Cell #2 and septage lagoon only as shown in Figures I and 2 of permit.	No	None	None
NSRP-27-CLF-08, Conditions 4.1, 4.2, 5.1, and 5.2.	Cell 2 Emission Limits - Cell 2 emissions are limited to: • Acrylonitrile = 57.3 lb/yr; • Hydrogen Sulfide = 162.5 lb/yr; and • Vinyl Chloride = 45.7 lb/yr.	No	Submit Cell 2 emission rate calculations annually.	Calculate and submit annual emissions to YRCAA based on total LFG generation (EPA's LandGEM and annual waste acceptance in Cell 2) and default AP-42 TAP concentrations in LFG, until site-specific concentration data are available.

Form C-4: Compliance Schedule

Facility Name: _Cheyne Landfill ____
Confidentiality Claim? Yes No (circle one)
Process #: 1____

Applicable Requirement Identifier	Current Compliance Status (In or Out)	Compliance Status over Past Year (Continuous or Intermittent)	Method used to Determine Compliance Status
WAC 173-400- 110 WAC 173-460	In	Continuous	Administrative
WAC 173-400-035	In	Continuous	Administrative
NSRP-27-CLF-08, Condition 2.9 YRCAA Reg.1 Sec.3.03 WAC 173-425	In	Continuous	Administrative
40 CFR 61, Subpart M WAC 173-400-075 YRCAA Reg.1 Sec.3.07	In	Continuous	Administrative
40 CFR 82.150, Subparts B and F YRCAA Reg.1 Sec.3.06	In	Continuous	Administrative
WAC 173-400-105(7 & 8)	In	Continuous	Administrative
40 CFR 68	In	Continuous	Administrative
WAC 173-400-105	In	Continuous	Administrative
WAC 173-400-107	In	Continuous	Administrative

- The source shall continue to comply with all applicable requirements with which it is currently in compliance.
- The source shall meet applicable requirements on a timely basis that become effective during the permit term.
- A Schedule of Compliance, for any applicable requirement that the source is out-of-compliance, must accompany this application.
- The source shall meet the Compliance Schedule in order to assure continuous compliance with all applicable requirements.

Form C-4: Compliance Schedule

Facility Name: _Cheyne Landfill_____
Confidentiality Claim? Yes No (circle one)
Process #: 1_____

Applicable Requirement Identifier	Current Compliance Status (In or Out)	Compliance Status over Past Year (Continuous or Intermittent)	Method used to Determine Compliance Status
WAC 173-400-040(1)	In	Continuous	Yakima County personnel checking for visible emissions.
NSRP-27-CLF-08, Conditions 2.4 & 2.5	In	Continuous	Yakima County personnel checking for visible emissions.
WAC 173-400-040(6)	In	Continuous	No reasonable possibility of exceeding this standard.
WAC 173-400-050(1) and (3)	In	Continuous	Yakima County personnel checking for visible emissions.
WAC 173-400-060	In	Continuous	Yakima County personnel checking for visible emissions.
WAC 173-400-040(2)	In	Continuous	Yakima County has not received any fugitive dust complaints.
WAC 173-400-040(3)(a)	In	Continuous	Yakima County has not received any fugitive dust complaints.
WAC 173-400-040(4)	In	Continuous	Yakima County has not received any odor complaints.
WAC 173-400-040(5) NSRP-27-CLF-08, Condition 3.5	In	Continuous	Yakima County has not received any nuisance complaints.
WAC 173-400-040(8); NSRP-27-CLF-08, Condition 2.6	In	Continuous	Yakima County has not received any nuisance complaints.

- The source shall continue to comply with all applicable requirements with which it is currently in compliance.
- The source shall meet applicable requirements on a timely basis that become effective during the permit term.
- A Schedule of Compliance, for any applicable requirement that the source is out-of-compliance, must accompany this application.
- The source shall meet the Compliance Schedule in order to assure continuous compliance with all applicable requirements.

Form C-4: Compliance Schedule

Facility Name: _Cheyne Landfill ____
Confidentiality Claim? Yes No (circle one)
Process #: 1____

Applicable Requirement Identifier	Current Compliance Status (In or Out)	Compliance Status over Past Year (Continuous or Intermittent)	Method used to Determine Compliance Status
WAC 173-401 YRCAA Regulation 1, Section 4.04	In	Continuous	Administrative
WAC 173-400-720	In	Continuous	Administrative
WAC 173-400-200	In	Continuous	Administrative
WAC 173-400-205	In	Continuous	Administrative
NSRP-27-CLF-08, Condition 2.3	In	Continuous	Administrative
NSRP-27-CLF-08, Condition 2.7	In	Continuous	Administrative
NSRP-27-CLF-08, Condition 2.8	In	Continuous	Administrative
NSRP-27-CLF-08, Condition 2.10	In	Continuous	Administrative
NSRP-27-CLF-08, Condition 2.12	In	Continuous	Administrative
NSRP-27-CLF-08, Condition 5.3	In	Continuous	Administrative
NSRP-27-CLF-08, Condition 2.2	In	Continuous	Administrative

- The source shall continue to comply with all applicable requirements with which it is currently in compliance.
- The source shall meet applicable requirements on a timely basis that become effective during the permit term.
- A Schedule of Compliance, for any applicable requirement that the source is out-of-compliance, must accompany this application.
- The source shall meet the Compliance Schedule in order to assure continuous compliance with all applicable requirements.

Form C-4: Compliance Schedule

Facility Name: Cheyne Landfill

Confidentiality Claim? Yes No (circle one)

Process #: 1

Applicable Requirement Identifier	Current Compliance Status (In or Out)	Compliance Status over Past Year (Continuous or Intermittent)	Method used to Determine Compliance Status
NSRP-27-CLF-08, Condition 3.1	In	Continuous	Administrative
NSRP-27-CLF-08, Condition 3.2	In	Continuous	Administrative
NSRP-27-CLF-08, Condition 3.3	In	Continuous	Administrative
NSRP-27-CLF-08, Condition 3.4	In	Continuous	Administrative
NSRP-27-CLF-08, Condition 3.6	In	Continuous	Administrative
NSRP-27-CLF-08, Condition 3.7	In	Continuous	Administrative
NSRP-27-CLF-08, Condition 3.8	In	Continuous	Administrative
NSRP-27-CLF-08, Condition 3.9	In	Continuous	Administrative
NSRP-27-CLF-08, Condition 3.10	In	Continuous	Administrative

- The source shall continue to comply with all applicable requirements with which it is currently in compliance.
- The source shall meet applicable requirements on a timely basis that become effective during the permit term.
- A Schedule of Compliance, for any applicable requirement that the source is out-of-compliance, must accompany this application.
- The source shall meet the Compliance Schedule in order to assure continuous compliance with all applicable requirements.

Form C-4: Compliance Schedule

Facility Name: _Cheyne Landfill ____
Confidentiality Claim? Yes No (circle one)
Process #: 2____

Applicable Requirement Identifier	Current Compliance Status (In or Out)	Compliance Status over Past Year (Continuous or Intermittent)	Method used to Determine Compliance Status
40 CFR 60.7(a)(4), 60.7(b), 60.7(f)	In	Continuous	Administrative
40 CFR 60.11(d)	In	Continuous	Administrative
40 CFR 60.12	In	Continuous	Administrative
40 CFR 60.752(b), 60.754(a), 60.757(b); WAC 173-400-070(9) NSRP-27-CLF-08, Condition 5.4 & 5.5	In	Continuous	Yakima County submitted CLF 5-year projected NMOC emission report to YRCAA on July 1, 2010.
40 CFR 60.757(a)(3) WAC 173-400-070(9) NSRP-27-CLF-08,	In	Continuous	Yakima County submitted the amended design capacity report for CLF on January 20, 2010.
40 CFR 60.758(a) WAC 173-400-070(9)	In	Continuous	Administrative
NSRP-27-CLF-08, Condition 5.6	In	Continuous	Administrative

- The source shall continue to comply with all applicable requirements with which it is currently in compliance.
- The source shall meet applicable requirements on a timely basis that become effective during the permit term.
- A Schedule of Compliance, for any applicable requirement that the source is out-of-compliance, must accompany this application.
- The source shall meet the Compliance Schedule in order to assure continuous compliance with all applicable requirements.

Form C-4: Compliance Schedule

Facility Name: _Cheyne Landfill ____
Confidentiality Claim? Yes No (circle one)
Process #: 3____

Applicable Requirement Identifier	Current Compliance Status (In or Out)	Compliance Status over Past Year (Continuous or Intermittent)	Method used to Determine Compliance Status
NSRP-27-CLF-08, Condition 2.1	In	Continuous	Administrative
NSRP-27-CLF-08, Condition 2.11	In	Continuous	Administrative
NSRP-27-CLF-08, Conditions 4.1, 4.2, 5.1, and 5.2.	In	Continuous	Compliance with Cell 2 TAP emission limits based on actual waste acceptance rates for Cell 2, landfill gas generation rates from EPA's LandGEM model, and TAP concentrations in landfill gas (AP-42 default values until site-specific test data are available).

- The source shall continue to comply with all applicable requirements with which it is currently in compliance.
- The source shall meet applicable requirements on a timely basis that become effective during the permit term.
- A Schedule of Compliance, for any applicable requirement that the source is out-of-compliance, must accompany this application.
- The source shall meet the Compliance Schedule in order to assure continuous compliance with all applicable requirements.

Form C-5: Insignificant Emissions

Facility Name: Cheyne Landfill
Process #: 1

Process # Attachment #	IEU Name	Basis for IEU Designation	If Exemption is Based on Emissions Being Less Than Stated Thresholds:		
			Pollutant Name	Emission Rate, tons/year	
				Threshold	Actual
NA	Mobile Fugitive Emissions	WAC 173-401-530(1)(d)	Not Applicable	NA	NA
NA	Landfill Cover Handling Fugitive Emissions	WAC 173-401-530(1)(d)	Not Applicable	NA	NA
NA	Wind Erosion Fugitive Emissions	WAC 173-401-530(1)(d)	Not Applicable	NA	NA
NA	Landfill Compacting/Dozing Fugitive Emissions	WAC 173-401-530(1)(d)	Not Applicable	NA	NA
NA	Portable Yardwaste Grinder	WAC 173-401-530(a) [2009 actual emissions]	NO_X and NMHC	2	0.2
			CO	5	0.1
			SO_X	2	0.004
			PM_{10}	0.75	0.036
			Benzene	0.5	0.000063
			Toluene	0.5	0.000023
			Xylenes	0.5	0.000016
			Formaldehyde	0.5	0.000006
			Propylene	0.5	0.00023
			Acetaldehyde	0.5	0.000002
			Acrolein	0.04	0.0000006
			Naphthalene	0.5	0.000011
			Polycyclic Organic Matter	0.005	0.000017

APPENDIX B

Facility-Wide Potential Emission Calculations

Cheyne Landfill – LandGEM Results from RW Beck				
Year	User Waste Acceptance Inputs (Mg/year)	User Waste-In-Place (Mg)	Methane Generation [a] (m^3/year)	Total LFG Generation [a] (m^3/year)
1994	272,727	0	0.0E+00	0.0E+00
1995	49,455	272,727	5.4E+05	1.1E+06
1996	53,025	322,182	6.3E+05	1.3E+06
1997	53,416	375,206	7.2E+05	1.4E+06
1998	55,325	428,623	8.1E+05	1.6E+06
1999	53,782	483,948	9.1E+05	1.8E+06
2000	53,366	537,730	9.9E+05	2.0E+06
2001	55,273	591,096	1.1E+06	2.2E+06
2002	56,982	646,369	1.2E+06	2.3E+06
2003	60,369	703,351	1.3E+06	2.5E+06
2004	62,315	763,720	1.4E+06	2.7E+06
2005	63,780	826,035	1.4E+06	2.9E+06
2006	66,001	889,815	1.5E+06	3.1E+06
2007	67,196	955,816	1.6E+06	3.3E+06
2009	65,870	1,087,277	1.8E+06	3.7E+06
2010	66,339	1,153,147	1.9E+06	3.9E+06
2011	67,600	1,219,486	2.0E+06	4.1E+06
2012	68,860	1,287,086	2.1E+06	4.2E+06
2013	70,120	1,355,946	2.2E+06	4.4E+06
2014	71,380	1,426,066	2.3E+06	4.6E+06
2015	72,640	1,497,446	2.4E+06	4.8E+06
2016	73,845	1,570,086	2.5E+06	5.0E+06
2017	75,048	1,643,931	2.6E+06	5.2E+06
2018	76,253	1,718,979	2.7E+06	5.4E+06
2019	161,299	1,795,232	2.8E+06	5.6E+06
2020	255,125	1,956,531	3.1E+06	6.1E+06
2021	259,028	2,211,656	3.5E+06	7.0E+06
2022	262,930	2,470,685	3.9E+06	7.9E+06
2023	266,833	2,733,615	4.4E+06	8.8E+06
2024	270,735	3,000,447	4.8E+06	9.7E+06
2025	274,559	3,271,182	5.3E+06	1.1E+07
2026	278,438	3,545,741	5.7E+06	1.1E+07
2027	282,372	3,824,179	6.2E+06	1.2E+07
2028	286,361	4,106,551	6.6E+06	1.3E+07
2029	290,406	4,392,912	7.0E+06	1.4E+07
2030	294,509	4,683,318	7.5E+06	1.5E+07
2031	298,670	4,977,827	7.9E+06	1.6E+07
2032	302,889	5,276,497	8.3E+06	1.7E+07
2034	311,508	5,886,555	9.2E+06	1.8E+07
2035	315,909	6,198,063	9.6E+06	1.9E+07
2036	320,372	6,513,972	1.0E+07	2.0E+07
2037	324,898	6,834,344	1.1E+07	2.1E+07
2038	329,489	7,159,242	1.1E+07	2.2E+07
2039	334,144	7,488,731	1.1E+07	2.3E+07
2040	59,294	7,822,875	1.2E+07	2.4E+07
2041	0	7,882,168	1.2E+07	2.3E+07
2042	0	7,882,168	1.1E+07	2.3E+07
2043	0	7,882,168	1.1E+07	2.2E+07

a Methane and Total LFG generation rates based on EPA's LandGEM (Version 3.02), with past actual and projected annual waste acceptance rates, K = 0.020 yr^{-1}, Lo = 100 m^3/Mg, and Methane = 50 percent of total LFG.

Cheyne Landfill – Potential Fugitive LFG Emission Rates				
Compound	CAS No.	Emission Basis [a] (ppm in LFG)	Fugitive Emission	LFG Rate [b]
1,1,1-Trichloroethane (methyl chloroform)	71-55-6	0.48	1.58E-02	138.8
1,1,2,2-Tetrachloroethane	79-34-5	1.1	4.57E-02	400.3
1,1-Dichloroethane (ethylidene dichloride)	75-34-3	2.4	5.88E-02	515.0
1,1-Dichloroethene (vinylidene chloride)	75-35-4	0.2	4.80E-03	42.0
1,2-Dichloroethane (ethylene dichloride	107-06-2	0.41	1.00E-02	88.0
1,2-Dichloropropane (propylene dichloride)	78-87-5	0.18	5.03E-03	44.1
2-Propanol (isopropyl alcohol)	67-63-0	50	7.44E-01	6516.2
Acrylonitrile	107-13-1	4	5.25E-02	460.2
Benzene	71-43-2	1.9	3.67E-02	321.8
Carbon disulfide	75-15-0	0.58	1.09E-02	95.7
Carbon monoxide	630-08-0	140	9.71E-01	8501.9
Carbon tetrachloride	56-23-5	0.004	1.52E-04	1.3
Carbonyl sulfide	463-58-1	0.49	7.28E-03	63.8
Chlorobenzene	108-90-7	0.25	6.96E-03	61.0
Chlorodifluoromethane	75-45-6	1.3	2.78E-02	243.7
Chloroethane (ethyl chloride)	75-00-3	1.3	2.08E-02	181.9
Chloroform	67-66-3	0.03	8.86E-04	7.8
Chloromethane	74-87-3	1.2	1.50E-02	131.4
Dichlorobenzene	106-46-7	0.21	7.64E-03	66.9
Dichloromethane (methylene chloride)	75-09-2	14	2.94E-01	2578.2
Ethylbenzene	100-41-4	4.6	1.21E-01	1058.8
Ethylene dibromide	106-93-4	0.001	4.65E-05	0.4
Hexane	110-54-3	6.6	1.41E-01	1233.2
Hydrogen sulfide	7783-06-4	36	3.04E-01	2660.0
Mercury (total)	7439-97-6	0.00029	1.44E-05	0.1
Methyl ethyl ketone	78-93-3	7.1	1.27E-01	1110.0
Methyl isobutyl ketone	108-10-1	1.9	4.71E-02	412.6
Perchloroethylene (tetrachloroethylene)	127-18-4	3.7	1.52E-01	1330.3
Toluene	108-88-3	39	8.89E-01	7790.1
Trichloroethylene (trichloroethene)	79-01-6	2.8	9.11E-02	797.7
Vinyl chloride	75-01-4	7.3	1.13E-01	989.2
Xylenes	1330-20-7	12	3.15E-01	2762.0

Notes:

a Based on AP-42 Chapter 2.4 (Municipal Solid Waste Landfills) default TAP concentrations in LFG.

b Potential Fugitive LFG emission rates based on highest projected LFG production rate for Cell 2 (1,320 cubic meters per hour in year 2040).

c Annual emission rate based on 8,760 hours per year.

Summary Report

Landfill Name or Identifier: Cheyne Landfill

Date: Tuesday, October 19, 2010

Description/Comments:

About LandGEM:

First-Order Decomposition Rate Equation:

$$Q_{CH_4} = \sum_{i=1}^{n} \sum_{j=0.1}^{1} kL_o \left(\frac{M_i}{10} \right) e^{-kt_{ij}}$$

Where,

Q_{CH4} = annual methane generation in the year of the calculation (m^3/*year*)

i = 1-year time increment

n = (year of the calculation) - (initial year of waste acceptance)

j = 0.1-year time increment

k = methane generation rate ($year^{-1}$)

L_o = potential methane generation capacity (m^3/*Mg*)

M_i = mass of waste accepted in the i^{th} year (*Mg*)

t_{ij} = age of the j^{th} section of waste mass M_i accepted in the i^{th} year (*decimal years*, e.g., 3.2 years)

LandGEM is based on a first-order decomposition rate equation for quantifying emissions from the decomposition of landfilled waste in municipal solid waste (MSW) landfills. The software provides a relatively simple approach to estimating landfill gas emissions. Model defaults are based on empirical data from U.S. landfills. Field test data can also be used in place of model defaults when available. Further guidance on EPA test methods, Clean Air Act (CAA) regulations, and other guidance regarding landfill gas emissions and control technology requirements can be found at http://www.epa.gov/ttnatw01/landfill/landflpg.html.

LandGEM is considered a screening tool — the better the input data, the better the estimates. Often, there are limitations with the available data regarding waste quantity and composition, variation in design and operating practices over time, and changes occurring over time that impact the emissions potential. Changes to landfill operation, such as operating under wet conditions through leachate recirculation or other liquid additions, will result in generating more gas at a faster rate. Defaults for estimating emissions for this type of operation are being developed to include in LandGEM along with defaults for convential landfills (no leachate or liquid additions) for developing emission inventories and determining CAA applicability. Refer to the Web site identified above for future updates.

Input Review

LANDFILL CHARACTERISTICS

Landfill Open Year	**1994**	
Landfill Closure Year (with 80-year limit)	**2040**	
Actual Closure Year (without limit)	***2040***	
Have Model Calculate Closure Year?	**No**	
Waste Design Capacity		*short tons*

MODEL PARAMETERS

Methane Generation Rate, k	**0.020**	*year -1*
Potential Methane Generation Capacity, L_o	**100**	*m_3 /Mg*
NMOC Concentration	**425**	*ppmv as hexane*
Methane Content	**50**	*% by volume*

GASES / POLLUTANTS SELECTED

Gas / Pollutant #1:	**Total landfill gas**
Gas / Pollutant #2:	**Methane**
Gas / Pollutant #3:	**Carbon dioxide**
Gas / Pollutant #4:	**NMOC**

WASTE ACCEPTANCE RATES

Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	*(short tons/year)*	*(Mg)*	*(short tons)*
1994	272,727	300,000	0	0
1995	49,455	54,400	272,727	300,000
1996	53,025	58,327	322,182	354,400
1997	53,416	58,758	375,206	412,727
1998	55,325	60,858	428,623	471,485
1999	53,782	59,160	483,948	532,343
2000	53,366	58,703	537,730	591,503
2001	55,273	60,800	591,096	650,206
2002	56,982	62,680	646,369	711,006
2003	60,369	66,406	703,351	773,686
2004	62,315	68,547	763,720	840,092
2005	63,780	70,158	826,035	908,639
2006	66,001	72,601	889,815	978,797
2007	67,196	73,916	955,816	1,051,398
2008	64,265	70,691	1,023,013	1,125,314
2009	65,870	72,457	1,087,277	1,196,005
2010	66,339	72,973	1,153,147	1,268,462
2011	67,600	74,360	1,219,486	1,341,435
2012	68,860	75,746	1,287,086	1,415,795
2013	70,120	77,132	1,355,946	1,491,541
2014	71,380	78,518	1,426,066	1,568,673
2015	72,640	79,904	1,497,446	1,647,191
2016	73,845	81,229	1,570,086	1,727,095
2017	75,048	82,553	1,643,931	1,808,324
2018	76,253	83,878	1,718,979	1,890,877
2019	161,299	177,429	1,795,232	1,974,755
2020	255,125	280,638	1,956,531	2,152,184
2021	259,028	284,931	2,211,656	2,432,822
2022	262,930	289,223	2,470,685	2,717,753
2023	266,833	293,516	2,733,615	3,006,976
2024	270,735	297,808	3,000,447	3,300,492
2025	274,559	302,015	3,271,182	3,598,300
2026	278,438	306,282	3,545,741	3,900,315
2027	282,372	310,609	3,824,179	4,206,597
2028	286,361	314,997	4,106,551	4,517,206
2029	290,406	319,447	4,392,912	4,832,203
2030	294,509	323,960	4,683,318	5,151,650
2031	298,670	328,537	4,977,827	5,475,610
2032	302,889	333,178	5,276,497	5,804,147
2033	307,168	337,885	5,579,386	6,137,325

WASTE ACCEPTANCE RATES (Continued)

Year	Waste Accepted		Waste-In-Place	
	(Mg/year)	*(short tons/year)*	*(Mg)*	*(short tons)*
2034	311,508	342,659	5,886,555	6,475,210
2035	315,909	347,500	6,198,063	6,817,869
2036	320,372	352,409	6,513,972	7,165,369
2037	324,898	357,388	6,834,344	7,517,778
2038	329,489	362,438	7,159,242	7,875,166
2039	334,144	367,558	7,488,731	8,237,604
2040	59,294	65,223	7,822,875	8,605,162
2041	0	0	7,882,168	8,670,385
2042	0	0	7,882,168	8,670,385
2043	0	0	7,882,168	8,670,385
2044	0	0	7,882,168	8,670,385
2045	0	0	7,882,168	8,670,385
2046	0	0	7,882,168	8,670,385
2047	0	0	7,882,168	8,670,385
2048	0	0	7,882,168	8,670,385
2049	0	0	7,882,168	8,670,385
2050	0	0	7,882,168	8,670,385
2051	0	0	7,882,168	8,670,385
2052	0	0	7,882,168	8,670,385
2053	0	0	7,882,168	8,670,385
2054	0	0	7,882,168	8,670,385
2055	0	0	7,882,168	8,670,385
2056	0	0	7,882,168	8,670,385
2057	0	0	7,882,168	8,670,385
2058	0	0	7,882,168	8,670,385
2059	0	0	7,882,168	8,670,385
2060	0	0	7,882,168	8,670,385
2061	0	0	7,882,168	8,670,385
2062	0	0	7,882,168	8,670,385
2063	0	0	7,882,168	8,670,385
2064	0	0	7,882,168	8,670,385
2065	0	0	7,882,168	8,670,385
2066	0	0	7,882,168	8,670,385
2067	0	0	7,882,168	8,670,385
2068	0	0	7,882,168	8,670,385
2069	0	0	7,882,168	8,670,385
2070	0	0	7,882,168	8,670,385
2071	0	0	7,882,168	8,670,385
2072	0	0	7,882,168	8,670,385
2073	0	0	7,882,168	8,670,385

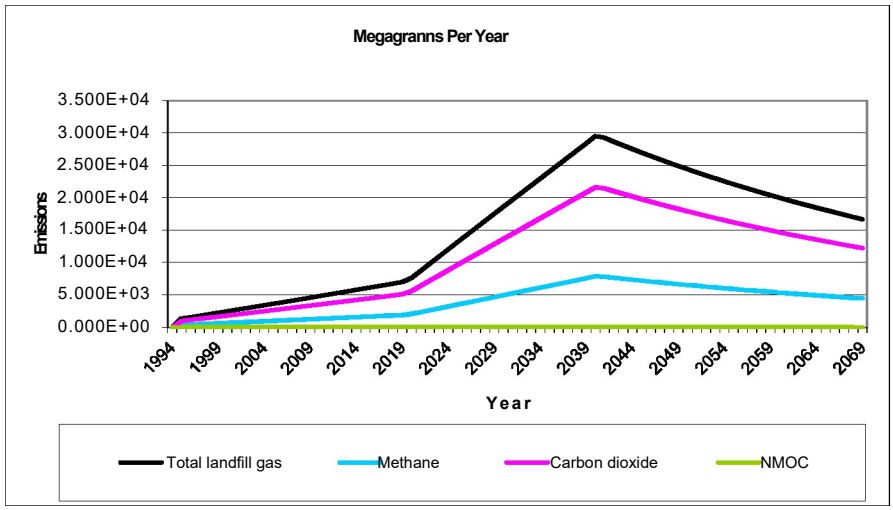
Pollutant Parameters

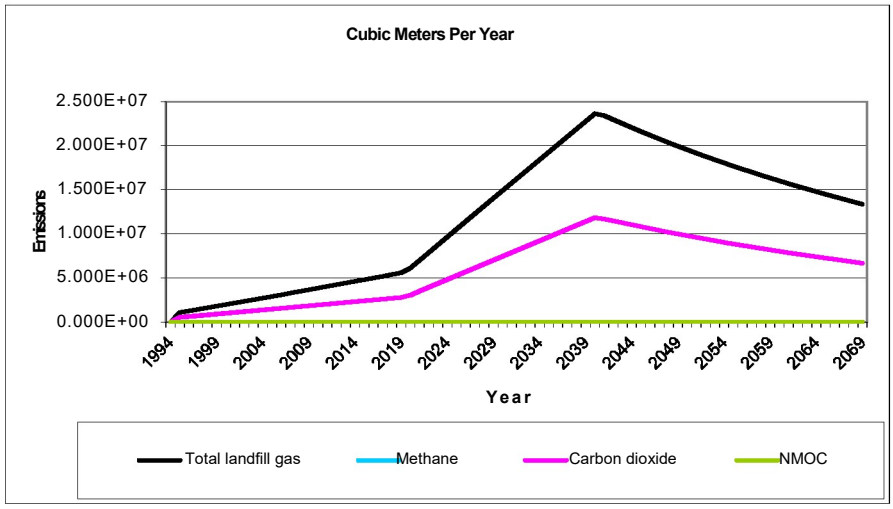
		Gas / Pollutant Default Parameters:		*User-specified Pollutant Parameters:*	
	Compound	Concentration (*ppmv*)	Molecular Weight	Concentration (*ppmv*)	Molecular Weight
Gases	Total landfill gas		0.00		
	Methane		16.04		
	Carbon dioxide		44.01		
	NMOC	4,000	86.18		
Pollutants	1,1,1-Trichloroethane (methyl chloroform) -	0.48	133.41		
	1,1,2,2 Tetrachloroethane - HAP/VOC	1.1	167.85		
	1,1-Dichloroethane (ethylidene dichloride) - HAP/VOC	2.4	98.97		
	1,1-Dichloroethene (vinylidene chloride) - HAP/VOC	0.20	96.94		
	1,2-Dichloroethane (ethylene dichloride) - HAP/VOC	0.41	98.96		
	1,2-Dichloropropane (propylene dichloride) - HAP/VOC	0.18	112.99		
	2-Propanol (isopropyl alcohol) - VOC	50	60.11		
	Acetone	7.0	58.08		
	Acrylonitrile - HAP/VOC	6.3	53.06		
	Benzene - No or Unknown Co-disposal - HAP/VOC	1.9	78.11		
	Benzene - Co-disposal - HAP/VOC	11	78.11		
	Bromodichloromethane - VOC	3.1	163.83		
	Butane - VOC	5.0	58.12		
	Carbon disulfide - HAP/VOC	0.58	76.13		
	Carbon monoxide	140	28.01		
	Carbon tetrachloride - HAP/VOC	4.0E-03	153.84		
	Carbonyl sulfide - HAP/VOC	0.49	60.07		
	Chlorobenzene - HAP/VOC	0.25	112.56		
	Chlorodifluoromethane	1.3	86.47		
	Chloroethane (ethyl chloride) - HAP/VOC	1.3	64.52		
	Chloroform - HAP/VOC	0.03	119.39		
	Chloromethane - VOC	1.2	50.49		
	Dichlorobenzene - (HAP for para isomer/VOC)	0.21	147		
	Dichlorodifluoromethane	16	120.91		
	Dichlorofluoromethane - VOC	2.6	102.92		
	Dichloromethane (methylene chloride) - HAP	14	84.94		
	Dimethyl sulfide (methyl sulfide) - VOC	7.8	62.13		
	Ethane	890	30.07		
	Ethanol - VOC	27	46.08		

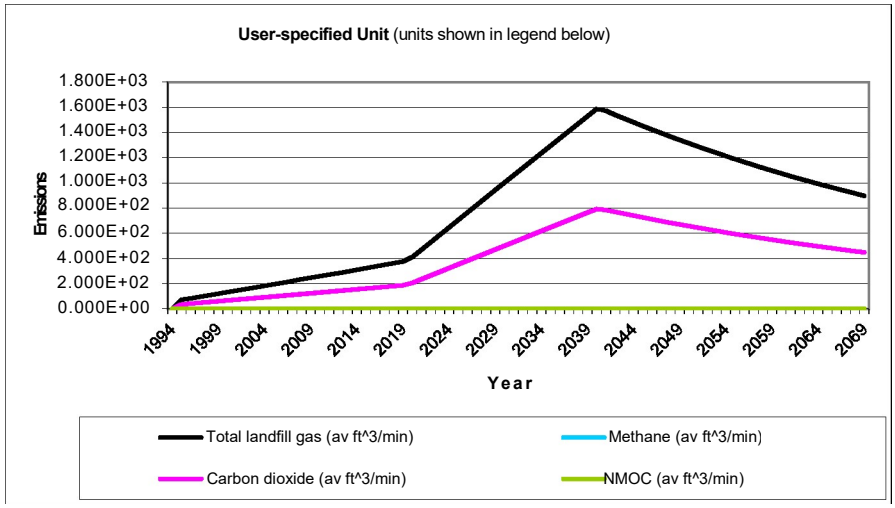
Pollutant Parameters (Continued)

		Gas / Pollutant Default Parameters:		*User-specified Pollutant Parameters:*	
	Compound	Concentration (*ppmv*)	Molecular Weight	Concentration (*ppmv*)	Molecular Weight
Pollutants	Ethyl mercaptan (ethanethiol) - VOC	2.3	62.13		
	Ethylbenzene - HAP/VOC	4.6	106.16		
	Ethylene dibromide - HAP/VOC	1.0E-03	187.88		
	Fluorotrichloromethane - VOC	0.76	137.38		
	Hexane - HAP/VOC	6.6	86.18		
	Hydrogen sulfide	36	34.08		
	Mercury (total) - HAP	2.9E-04	200.61		
	Methyl ethyl ketone - HAP/VOC	7.1	72.11		
	Methyl isobutyl ketone - HAP/VOC	1.9	100.16		
	Methyl mercaptan - VOC	2.5	48.11		
	Pentane - VOC	3.3	72.15		
	Perchloroethylene (tetrachloroethylene) - HAP	3.7	165.83		
	Propane - VOC	11	44.09		
	t-1,2-Dichloroethene - VOC	2.8	96.94		
	Toluene - No or Unknown Co-disposal - HAP/VOC	39	92.13		
	Toluene - Co-disposal - HAP/VOC	170	92.13		
	Trichloroethylene (trichloroethene) - HAP/VOC	2.8	131.40		
	Vinyl chloride - HAP/VOC	7.3	62.50		
	Xylenes - HAP/VOC	12	106.16		

Graphs


Megagranns Per Year
3.500E+04
3.000E+04
2.500E+04
2.000E+04
1.500E+04
1.000E+04
5.000E+03
0.000E+00
Emissions
1994
1999
2004
2009
2014
2019
2024
2029
2034
2039
2044
2049
2054
2059
2064
2069
Year
Total landfill gas
Methane
Carbon dioxide
NMOC


Cubic Meters Per Year
2.500E+07
2.000E+07
1.500E+07
1.000E+07
5.000E+06
0.000E+00
Emissions
1994
1999
2004
2009
2014
2019
2024
2029
2034
2039
2044
2049
2054
2059
2064
2069
Year
Total landfill gas
Methane
Carbon dioxide
NMOC


User-specified Unit (units shown in legend below)
1.800E+03
1.600E+03
1.400E+03
1.200E+03
1.000E+03
8.000E+02
6.000E+02
4.000E+02
2.000E+02
0.000E+00
Emissions
1994
1999
2004
2009
2014
2019
2024
2029
2034
2039
2044
2049
2054
2059
2064
2069
Year
Total landfill gas (av ft^3/min)
Methane (av ft^3/min)
Carbon dioxide (av ft^3/min)
NMOC (av ft^3/min)

Results

Year	Total landfill gas			Methane		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
1994	0	0	0	0	0	0
1995	1.350E+03	1.081E+06	7.264E+01	3.606E+02	5.406E+05	3.632E+01
1996	1.568E+03	1.256E+06	8.438E+01	4.189E+02	6.279E+05	4.219E+01
1997	1.800E+03	1.441E+06	9.683E+01	4.807E+02	7.206E+05	4.841E+01
1998	2.029E+03	1.624E+06	1.091E+02	5.418E+02	8.122E+05	5.457E+01
1999	2.262E+03	1.812E+06	1.217E+02	6.043E+02	9.058E+05	6.086E+01
2000	2.484E+03	1.989E+06	1.336E+02	6.634E+02	9.944E+05	6.681E+01
2001	2.699E+03	2.161E+06	1.452E+02	7.209E+02	1.081E+06	7.260E+01
2002	2.919E+03	2.337E+06	1.570E+02	7.797E+02	1.169E+06	7.852E+01
2003	3.143E+03	2.517E+06	1.691E+02	8.396E+02	1.258E+06	8.456E+01
2004	3.380E+03	2.706E+06	1.818E+02	9.028E+02	1.353E+06	9.092E+01
2005	3.621E+03	2.900E+06	1.948E+02	9.673E+02	1.450E+06	9.742E+01
2006	3.865E+03	3.095E+06	2.080E+02	1.033E+03	1.548E+06	1.040E+02
2007	4.116E+03	3.296E+06	2.214E+02	1.099E+03	1.648E+06	1.107E+02
2008	4.367E+03	3.497E+06	2.349E+02	1.166E+03	1.748E+06	1.175E+02
2009	4.599E+03	3.682E+06	2.474E+02	1.228E+03	1.841E+06	1.237E+02
2010	4.834E+03	3.870E+06	2.601E+02	1.291E+03	1.935E+06	1.300E+02
2011	5.066E+03	4.057E+06	2.726E+02	1.353E+03	2.028E+06	1.363E+02
2012	5.301E+03	4.244E+06	2.852E+02	1.416E+03	2.122E+06	1.426E+02
2013	5.537E+03	4.433E+06	2.979E+02	1.479E+03	2.217E+06	1.489E+02
2014	5.774E+03	4.624E+06	3.107E+02	1.542E+03	2.312E+06	1.553E+02
2015	6.013E+03	4.815E+06	3.235E+02	1.606E+03	2.408E+06	1.618E+02
2016	6.254E+03	5.008E+06	3.365E+02	1.670E+03	2.504E+06	1.682E+02
2017	6.495E+03	5.201E+06	3.495E+02	1.735E+03	2.601E+06	1.747E+02
2018	6.738E+03	5.396E+06	3.625E+02	1.800E+03	2.698E+06	1.813E+02
2019	6.982E+03	5.591E+06	3.757E+02	1.865E+03	2.796E+06	1.878E+02
2020	7.643E+03	6.120E+06	4.112E+02	2.041E+03	3.060E+06	2.056E+02
2021	8.754E+03	7.010E+06	4.710E+02	2.338E+03	3.505E+06	2.355E+02
2022	9.863E+03	7.898E+06	5.307E+02	2.635E+03	3.949E+06	2.653E+02
2023	1.097E+04	8.784E+06	5.902E+02	2.930E+03	4.392E+06	2.951E+02
2024	1.207E+04	9.668E+06	6.496E+02	3.225E+03	4.834E+06	3.248E+02
2025	1.317E+04	1.055E+07	7.088E+02	3.519E+03	5.275E+06	3.544E+02
2026	1.427E+04	1.143E+07	7.679E+02	3.812E+03	5.715E+06	3.840E+02
2027	1.537E+04	1.231E+07	8.269E+02	4.105E+03	6.153E+06	4.134E+02
2028	1.646E+04	1.318E+07	8.857E+02	4.397E+03	6.591E+06	4.429E+02
2029	1.755E+04	1.406E+07	9.445E+02	4.689E+03	7.028E+06	4.722E+02
2030	1.864E+04	1.493E+07	1.003E+03	4.980E+03	7.465E+06	5.016E+02
2031	1.973E+04	1.580E+07	1.062E+03	5.271E+03	7.901E+06	5.308E+02
2032	2.082E+04	1.667E+07	1.120E+03	5.561E+03	8.336E+06	5.601E+02
2033	2.191E+04	1.754E+07	1.179E+03	5.852E+03	8.772E+06	5.894E+02
2034	2.300E+04	1.841E+07	1.237E+03	6.142E+03	9.207E+06	6.186E+02
2035	2.408E+04	1.928E+07	1.296E+03	6.433E+03	9.642E+06	6.478E+02
2036	2.517E+04	2.015E+07	1.354E+03	6.723E+03	1.008E+07	6.771E+02
2037	2.626E+04	2.103E+07	1.413E+03	7.013E+03	1.051E+07	7.063E+02
2038	2.735E+04	2.190E+07	1.471E+03	7.304E+03	1.095E+07	7.356E+02
2039	2.843E+04	2.277E+07	1.530E+03	7.595E+03	1.138E+07	7.649E+02
2040	2.953E+04	2.364E+07	1.589E+03	7.887E+03	1.182E+07	7.943E+02
2041	2.923E+04	2.341E+07	1.573E+03	7.809E+03	1.170E+07	7.865E+02
2042	2.866E+04	2.295E+07	1.542E+03	7.654E+03	1.147E+07	7.709E+02
2043	2.809E+04	2.249E+07	1.511E+03	7.503E+03	1.125E+07	7.556E+02

Results (Continued)

Year	Total landfill gas			Methane		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2044	2.753E+04	2.205E+07	1.481E+03	7.354E+03	1.102E+07	7.407E+02
2045	2.699E+04	2.161E+07	1.452E+03	7.209E+03	1.081E+07	7.260E+02
2046	2.645E+04	2.118E+07	1.423E+03	7.066E+03	1.059E+07	7.116E+02
2047	2.593E+04	2.076E+07	1.395E+03	6.926E+03	1.038E+07	6.975E+02
2048	2.542E+04	2.035E+07	1.367E+03	6.789E+03	1.018E+07	6.837E+02
2049	2.491E+04	1.995E+07	1.340E+03	6.654E+03	9.974E+06	6.702E+02
2050	2.442E+04	1.955E+07	1.314E+03	6.523E+03	9.777E+06	6.569E+02
2051	2.394E+04	1.917E+07	1.288E+03	6.393E+03	9.583E+06	6.439E+02
2052	2.346E+04	1.879E+07	1.262E+03	6.267E+03	9.393E+06	6.311E+02
2053	2.300E+04	1.841E+07	1.237E+03	6.143E+03	9.207E+06	6.186E+02
2054	2.254E+04	1.805E+07	1.213E+03	6.021E+03	9.025E+06	6.064E+02
2055	2.210E+04	1.769E+07	1.189E+03	5.902E+03	8.846E+06	5.944E+02
2056	2.166E+04	1.734E+07	1.165E+03	5.785E+03	8.671E+06	5.826E+02
2057	2.123E+04	1.700E+07	1.142E+03	5.670E+03	8.500E+06	5.711E+02
2058	2.081E+04	1.666E+07	1.120E+03	5.558E+03	8.331E+06	5.598E+02
2059	2.040E+04	1.633E+07	1.097E+03	5.448E+03	8.166E+06	5.487E+02
2060	1.999E+04	1.601E+07	1.076E+03	5.340E+03	8.005E+06	5.378E+02
2061	1.960E+04	1.569E+07	1.054E+03	5.234E+03	7.846E+06	5.272E+02
2062	1.921E+04	1.538E+07	1.033E+03	5.131E+03	7.691E+06	5.167E+02
2063	1.883E+04	1.508E+07	1.013E+03	5.029E+03	7.538E+06	5.065E+02
2064	1.846E+04	1.478E+07	9.930E+02	4.930E+03	7.389E+06	4.965E+02
2065	1.809E+04	1.449E+07	9.733E+02	4.832E+03	7.243E+06	4.866E+02
2066	1.773E+04	1.420E+07	9.540E+02	4.736E+03	7.099E+06	4.770E+02
2067	1.738E+04	1.392E+07	9.351E+02	4.643E+03	6.959E+06	4.676E+02
2068	1.704E+04	1.364E+07	9.166E+02	4.551E+03	6.821E+06	4.583E+02
2069	1.670E+04	1.337E+07	8.985E+02	4.461E+03	6.686E+06	4.492E+02
2070	1.637E+04	1.311E+07	8.807E+02	4.372E+03	6.554E+06	4.403E+02
2071	1.604E+04	1.285E+07	8.632E+02	4.286E+03	6.424E+06	4.316E+02
2072	1.573E+04	1.259E+07	8.461E+02	4.201E+03	6.297E+06	4.231E+02
2073	1.542E+04	1.234E+07	8.294E+02	4.118E+03	6.172E+06	4.147E+02
2074	1.511E+04	1.210E+07	8.130E+02	4.036E+03	6.050E+06	4.065E+02
2075	1.481E+04	1.186E+07	7.969E+02	3.956E+03	5.930E+06	3.984E+02
2076	1.452E+04	1.163E+07	7.811E+02	3.878E+03	5.813E+06	3.905E+02
2077	1.423E+04	1.139E+07	7.656E+02	3.801E+03	5.697E+06	3.828E+02
2078	1.395E+04	1.117E+07	7.505E+02	3.726E+03	5.585E+06	3.752E+02
2079	1.367E+04	1.095E+07	7.356E+02	3.652E+03	5.474E+06	3.678E+02
2080	1.340E+04	1.073E+07	7.210E+02	3.580E+03	5.366E+06	3.605E+02
2081	1.314E+04	1.052E+07	7.068E+02	3.509E+03	5.259E+06	3.534E+02
2082	1.288E+04	1.031E+07	6.928E+02	3.439E+03	5.155E+06	3.464E+02
2083	1.262E+04	1.011E+07	6.790E+02	3.371E+03	5.053E+06	3.395E+02
2084	1.237E+04	9.906E+06	6.656E+02	3.304E+03	4.953E+06	3.328E+02
2085	1.213E+04	9.710E+06	6.524E+02	3.239E+03	4.855E+06	3.262E+02
2086	1.189E+04	9.518E+06	6.395E+02	3.175E+03	4.759E+06	3.197E+02
2087	1.165E+04	9.329E+06	6.268E+02	3.112E+03	4.665E+06	3.134E+02
2088	1.142E+04	9.145E+06	6.144E+02	3.050E+03	4.572E+06	3.072E+02
2089	1.119E+04	8.963E+06	6.023E+02	2.990E+03	4.482E+06	3.011E+02
2090	1.097E+04	8.786E+06	5.903E+02	2.931E+03	4.393E+06	2.952E+02
2091	1.075E+04	8.612E+06	5.786E+02	2.873E+03	4.306E+06	2.893E+02
2092	1.054E+04	8.442E+06	5.672E+02	2.816E+03	4.221E+06	2.836E+02
2093	1.033E+04	8.274E+06	5.560E+02	2.760E+03	4.137E+06	2.780E+02
2094	1.013E+04	8.111E+06	5.449E+02	2.705E+03	4.055E+06	2.725E+02

Results (Continued)

Year	Total landfill gas			Methane		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2095	9.928E+03	7.950E+06	5.342E+02	2.652E+03	3.975E+06	2.671E+02
2096	9.731E+03	7.792E+06	5.236E+02	2.599E+03	3.896E+06	2.618E+02
2097	9.539E+03	7.638E+06	5.132E+02	2.548E+03	3.819E+06	2.566E+02
2098	9.350E+03	7.487E+06	5.030E+02	2.497E+03	3.743E+06	2.515E+02
2099	9.165E+03	7.339E+06	4.931E+02	2.448E+03	3.669E+06	2.465E+02
2100	8.983E+03	7.193E+06	4.833E+02	2.400E+03	3.597E+06	2.417E+02
2101	8.805E+03	7.051E+06	4.738E+02	2.352E+03	3.525E+06	2.369E+02
2102	8.631E+03	6.911E+06	4.644E+02	2.305E+03	3.456E+06	2.322E+02
2103	8.460E+03	6.774E+06	4.552E+02	2.260E+03	3.387E+06	2.276E+02
2104	8.293E+03	6.640E+06	4.462E+02	2.215E+03	3.320E+06	2.231E+02
2105	8.128E+03	6.509E+06	4.373E+02	2.171E+03	3.254E+06	2.187E+02
2106	7.967E+03	6.380E+06	4.287E+02	2.128E+03	3.190E+06	2.143E+02
2107	7.810E+03	6.254E+06	4.202E+02	2.086E+03	3.127E+06	2.101E+02
2108	7.655E+03	6.130E+06	4.119E+02	2.045E+03	3.065E+06	2.059E+02
2109	7.503E+03	6.008E+06	4.037E+02	2.004E+03	3.004E+06	2.019E+02
2110	7.355E+03	5.889E+06	3.957E+02	1.965E+03	2.945E+06	1.979E+02
2111	7.209E+03	5.773E+06	3.879E+02	1.926E+03	2.886E+06	1.939E+02
2112	7.066E+03	5.659E+06	3.802E+02	1.888E+03	2.829E+06	1.901E+02
2113	6.927E+03	5.546E+06	3.727E+02	1.850E+03	2.773E+06	1.863E+02
2114	6.789E+03	5.437E+06	3.653E+02	1.814E+03	2.718E+06	1.826E+02
2115	6.655E+03	5.329E+06	3.581E+02	1.778E+03	2.664E+06	1.790E+02
2116	6.523E+03	5.223E+06	3.510E+02	1.742E+03	2.612E+06	1.755E+02
2117	6.394E+03	5.120E+06	3.440E+02	1.708E+03	2.560E+06	1.720E+02
2118	6.267E+03	5.019E+06	3.372E+02	1.674E+03	2.509E+06	1.686E+02
2119	6.143E+03	4.919E+06	3.305E+02	1.641E+03	2.460E+06	1.653E+02
2120	6.022E+03	4.822E+06	3.240E+02	1.608E+03	2.411E+06	1.620E+02
2121	5.902E+03	4.726E+06	3.176E+02	1.577E+03	2.363E+06	1.588E+02
2122	5.786E+03	4.633E+06	3.113E+02	1.545E+03	2.316E+06	1.556E+02
2123	5.671E+03	4.541E+06	3.051E+02	1.515E+03	2.271E+06	1.526E+02
2124	5.559E+03	4.451E+06	2.991E+02	1.485E+03	2.226E+06	1.495E+02
2125	5.449E+03	4.363E+06	2.931E+02	1.455E+03	2.182E+06	1.466E+02
2126	5.341E+03	4.277E+06	2.873E+02	1.427E+03	2.138E+06	1.437E+02
2127	5.235E+03	4.192E+06	2.817E+02	1.398E+03	2.096E+06	1.408E+02
2128	5.131E+03	4.109E+06	2.761E+02	1.371E+03	2.054E+06	1.380E+02
2129	5.030E+03	4.028E+06	2.706E+02	1.343E+03	2.014E+06	1.353E+02
2130	4.930E+03	3.948E+06	2.653E+02	1.317E+03	1.974E+06	1.326E+02
2131	4.832E+03	3.870E+06	2.600E+02	1.291E+03	1.935E+06	1.300E+02
2132	4.737E+03	3.793E+06	2.549E+02	1.265E+03	1.897E+06	1.274E+02
2133	4.643E+03	3.718E+06	2.498E+02	1.240E+03	1.859E+06	1.249E+02
2134	4.551E+03	3.644E+06	2.449E+02	1.216E+03	1.822E+06	1.224E+02

Results (Continued)

Year	Carbon dioxide			NMOC		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
1994	0	0	0	0	0	0
1995	9.895E+02	5.406E+05	3.632E+01	1.647E+00	4.595E+02	3.087E-02
1996	1.149E+03	6.279E+05	4.219E+01	1.913E+00	5.337E+02	3.586E-02
1997	1.319E+03	7.206E+05	4.841E+01	2.195E+00	6.125E+02	4.115E-02
1998	1.487E+03	8.122E+05	5.457E+01	2.475E+00	6.903E+02	4.638E-02
1999	1.658E+03	9.058E+05	6.086E+01	2.760E+00	7.699E+02	5.173E-02
2000	1.820E+03	9.944E+05	6.681E+01	3.030E+00	8.453E+02	5.679E-02
2001	1.978E+03	1.081E+06	7.260E+01	3.292E+00	9.184E+02	6.171E-02
2002	2.139E+03	1.169E+06	7.852E+01	3.561E+00	9.934E+02	6.674E-02
2003	2.304E+03	1.258E+06	8.456E+01	3.834E+00	1.070E+03	7.187E-02
2004	2.477E+03	1.353E+06	9.092E+01	4.123E+00	1.150E+03	7.728E-02
2005	2.654E+03	1.450E+06	9.742E+01	4.418E+00	1.232E+03	8.281E-02
2006	2.833E+03	1.548E+06	1.040E+02	4.715E+00	1.315E+03	8.839E-02
2007	3.016E+03	1.648E+06	1.107E+02	5.021E+00	1.401E+03	9.411E-02
2008	3.200E+03	1.748E+06	1.175E+02	5.327E+00	1.486E+03	9.985E-02
2009	3.370E+03	1.841E+06	1.237E+02	5.610E+00	1.565E+03	1.051E-01
2010	3.542E+03	1.935E+06	1.300E+02	5.896E+00	1.645E+03	1.105E-01
2011	3.713E+03	2.028E+06	1.363E+02	6.180E+00	1.724E+03	1.158E-01
2012	3.885E+03	2.122E+06	1.426E+02	6.466E+00	1.804E+03	1.212E-01
2013	4.058E+03	2.217E+06	1.489E+02	6.754E+00	1.884E+03	1.266E-01
2014	4.232E+03	2.312E+06	1.553E+02	7.044E+00	1.965E+03	1.320E-01
2015	4.407E+03	2.408E+06	1.618E+02	7.335E+00	2.046E+03	1.375E-01
2016	4.583E+03	2.504E+06	1.682E+02	7.629E+00	2.128E+03	1.430E-01
2017	4.760E+03	2.601E+06	1.747E+02	7.924E+00	2.211E+03	1.485E-01
2018	4.938E+03	2.698E+06	1.813E+02	8.220E+00	2.293E+03	1.541E-01
2019	5.117E+03	2.796E+06	1.878E+02	8.518E+00	2.376E+03	1.597E-01
2020	5.601E+03	3.060E+06	2.056E+02	9.323E+00	2.601E+03	1.748E-01
2021	6.416E+03	3.505E+06	2.355E+02	1.068E+01	2.979E+03	2.002E-01
2022	7.229E+03	3.949E+06	2.653E+02	1.203E+01	3.357E+03	2.255E-01
2023	8.040E+03	4.392E+06	2.951E+02	1.338E+01	3.733E+03	2.508E-01
2024	8.849E+03	4.834E+06	3.248E+02	1.473E+01	4.109E+03	2.761E-01
2025	9.656E+03	5.275E+06	3.544E+02	1.607E+01	4.484E+03	3.013E-01
2026	1.046E+04	5.715E+06	3.840E+02	1.741E+01	4.857E+03	3.264E-01
2027	1.126E+04	6.153E+06	4.134E+02	1.875E+01	5.230E+03	3.514E-01
2028	1.207E+04	6.591E+06	4.429E+02	2.008E+01	5.603E+03	3.764E-01
2029	1.287E+04	7.028E+06	4.722E+02	2.141E+01	5.974E+03	4.014E-01
2030	1.366E+04	7.465E+06	5.016E+02	2.274E+01	6.345E+03	4.263E-01
2031	1.446E+04	7.901E+06	5.308E+02	2.407E+01	6.716E+03	4.512E-01
2032	1.526E+04	8.336E+06	5.601E+02	2.540E+01	7.086E+03	4.761E-01
2033	1.606E+04	8.772E+06	5.894E+02	2.673E+01	7.456E+03	5.010E-01
2034	1.685E+04	9.207E+06	6.186E+02	2.805E+01	7.826E+03	5.258E-01
2035	1.765E+04	9.642E+06	6.478E+02	2.938E+01	8.196E+03	5.507E-01
2036	1.845E+04	1.008E+07	6.771E+02	3.070E+01	8.565E+03	5.755E-01
2037	1.924E+04	1.051E+07	7.063E+02	3.203E+01	8.936E+03	6.004E-01
2038	2.004E+04	1.095E+07	7.356E+02	3.336E+01	9.306E+03	6.253E-01
2039	2.084E+04	1.138E+07	7.649E+02	3.469E+01	9.677E+03	6.502E-01
2040	2.164E+04	1.182E+07	7.943E+02	3.602E+01	1.005E+04	6.751E-01
2041	2.143E+04	1.170E+07	7.865E+02	3.566E+01	9.949E+03	6.685E-01
2042	2.100E+04	1.147E+07	7.709E+02	3.496E+01	9.752E+03	6.553E-01
2043	2.059E+04	1.125E+07	7.556E+02	3.426E+01	9.559E+03	6.423E-01

Results (Continued)

Year	Carbon dioxide			NMOC		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2044	2.018E+04	1.102E+07	7.407E+02	3.359E+01	9.370E+03	6.296E-01
2045	1.978E+04	1.081E+07	7.260E+02	3.292E+01	9.184E+03	6.171E-01
2046	1.939E+04	1.059E+07	7.116E+02	3.227E+01	9.002E+03	6.049E-01
2047	1.900E+04	1.038E+07	6.975E+02	3.163E+01	8.824E+03	5.929E-01
2048	1.863E+04	1.018E+07	6.837E+02	3.100E+01	8.649E+03	5.812E-01
2049	1.826E+04	9.974E+06	6.702E+02	3.039E+01	8.478E+03	5.696E-01
2050	1.790E+04	9.777E+06	6.569E+02	2.979E+01	8.310E+03	5.584E-01
2051	1.754E+04	9.583E+06	6.439E+02	2.920E+01	8.146E+03	5.473E-01
2052	1.719E+04	9.393E+06	6.311E+02	2.862E+01	7.984E+03	5.365E-01
2053	1.685E+04	9.207E+06	6.186E+02	2.805E+01	7.826E+03	5.259E-01
2054	1.652E+04	9.025E+06	6.064E+02	2.750E+01	7.671E+03	5.154E-01
2055	1.619E+04	8.846E+06	5.944E+02	2.695E+01	7.519E+03	5.052E-01
2056	1.587E+04	8.671E+06	5.826E+02	2.642E+01	7.371E+03	4.952E-01
2057	1.556E+04	8.500E+06	5.711E+02	2.590E+01	7.225E+03	4.854E-01
2058	1.525E+04	8.331E+06	5.598E+02	2.538E+01	7.082E+03	4.758E-01
2059	1.495E+04	8.166E+06	5.487E+02	2.488E+01	6.941E+03	4.664E-01
2060	1.465E+04	8.005E+06	5.378E+02	2.439E+01	6.804E+03	4.572E-01
2061	1.436E+04	7.846E+06	5.272E+02	2.391E+01	6.669E+03	4.481E-01
2062	1.408E+04	7.691E+06	5.167E+02	2.343E+01	6.537E+03	4.392E-01
2063	1.380E+04	7.538E+06	5.065E+02	2.297E+01	6.408E+03	4.305E-01
2064	1.353E+04	7.389E+06	4.965E+02	2.251E+01	6.281E+03	4.220E-01
2065	1.326E+04	7.243E+06	4.866E+02	2.207E+01	6.156E+03	4.136E-01
2066	1.300E+04	7.099E+06	4.770E+02	2.163E+01	6.035E+03	4.055E-01
2067	1.274E+04	6.959E+06	4.676E+02	2.120E+01	5.915E+03	3.974E-01
2068	1.249E+04	6.821E+06	4.583E+02	2.078E+01	5.798E+03	3.896E-01
2069	1.224E+04	6.686E+06	4.492E+02	2.037E+01	5.683E+03	3.818E-01
2070	1.200E+04	6.554E+06	4.403E+02	1.997E+01	5.571E+03	3.743E-01
2071	1.176E+04	6.424E+06	4.316E+02	1.957E+01	5.460E+03	3.669E-01
2072	1.153E+04	6.297E+06	4.231E+02	1.918E+01	5.352E+03	3.596E-01
2073	1.130E+04	6.172E+06	4.147E+02	1.880E+01	5.246E+03	3.525E-01
2074	1.107E+04	6.050E+06	4.065E+02	1.843E+01	5.142E+03	3.455E-01
2075	1.085E+04	5.930E+06	3.984E+02	1.807E+01	5.040E+03	3.387E-01
2076	1.064E+04	5.813E+06	3.905E+02	1.771E+01	4.941E+03	3.320E-01
2077	1.043E+04	5.697E+06	3.828E+02	1.736E+01	4.843E+03	3.254E-01
2078	1.022E+04	5.585E+06	3.752E+02	1.702E+01	4.747E+03	3.189E-01
2079	1.002E+04	5.474E+06	3.678E+02	1.668E+01	4.653E+03	3.126E-01
2080	9.822E+03	5.366E+06	3.605E+02	1.635E+01	4.561E+03	3.064E-01
2081	9.627E+03	5.259E+06	3.534E+02	1.602E+01	4.470E+03	3.004E-01
2082	9.437E+03	5.155E+06	3.464E+02	1.571E+01	4.382E+03	2.944E-01
2083	9.250E+03	5.053E+06	3.395E+02	1.540E+01	4.295E+03	2.886E-01
2084	9.067E+03	4.953E+06	3.328E+02	1.509E+01	4.210E+03	2.829E-01
2085	8.887E+03	4.855E+06	3.262E+02	1.479E+01	4.127E+03	2.773E-01
2086	8.711E+03	4.759E+06	3.197E+02	1.450E+01	4.045E+03	2.718E-01
2087	8.539E+03	4.665E+06	3.134E+02	1.421E+01	3.965E+03	2.664E-01
2088	8.370E+03	4.572E+06	3.072E+02	1.393E+01	3.886E+03	2.611E-01
2089	8.204E+03	4.482E+06	3.011E+02	1.365E+01	3.809E+03	2.560E-01
2090	8.041E+03	4.393E+06	2.952E+02	1.338E+01	3.734E+03	2.509E-01
2091	7.882E+03	4.306E+06	2.893E+02	1.312E+01	3.660E+03	2.459E-01
2092	7.726E+03	4.221E+06	2.836E+02	1.286E+01	3.588E+03	2.411E-01
2093	7.573E+03	4.137E+06	2.780E+02	1.261E+01	3.517E+03	2.363E-01
2094	7.423E+03	4.055E+06	2.725E+02	1.236E+01	3.447E+03	2.316E-01

Results (Continued)

Year	Carbon dioxide			NMOC		
	(Mg/year)	*(m^3/year)*	*(av ft^3/min)*	*(Mg/year)*	*(m^3/year)*	*(av ft^3/min)*
2095	7.276E+03	3.975E+06	2.671E+02	1.211E+01	3.379E+03	2.270E-01
2096	7.132E+03	3.896E+06	2.618E+02	1.187E+01	3.312E+03	2.225E-01
2097	6.991E+03	3.819E+06	2.566E+02	1.164E+01	3.246E+03	2.181E-01
2098	6.852E+03	3.743E+06	2.515E+02	1.141E+01	3.182E+03	2.138E-01
2099	6.717E+03	3.669E+06	2.465E+02	1.118E+01	3.119E+03	2.096E-01
2100	6.584E+03	3.597E+06	2.417E+02	1.096E+01	3.057E+03	2.054E-01
2101	6.453E+03	3.525E+06	2.369E+02	1.074E+01	2.997E+03	2.013E-01
2102	6.326E+03	3.456E+06	2.322E+02	1.053E+01	2.937E+03	1.974E-01
2103	6.200E+03	3.387E+06	2.276E+02	1.032E+01	2.879E+03	1.934E-01
2104	6.078E+03	3.320E+06	2.231E+02	1.012E+01	2.822E+03	1.896E-01
2105	5.957E+03	3.254E+06	2.187E+02	9.916E+00	2.766E+03	1.859E-01
2106	5.839E+03	3.190E+06	2.143E+02	9.719E+00	2.711E+03	1.822E-01
2107	5.724E+03	3.127E+06	2.101E+02	9.527E+00	2.658E+03	1.786E-01
2108	5.610E+03	3.065E+06	2.059E+02	9.338E+00	2.605E+03	1.750E-01
2109	5.499E+03	3.004E+06	2.019E+02	9.153E+00	2.554E+03	1.716E-01
2110	5.390E+03	2.945E+06	1.979E+02	8.972E+00	2.503E+03	1.682E-01
2111	5.284E+03	2.886E+06	1.939E+02	8.794E+00	2.453E+03	1.648E-01
2112	5.179E+03	2.829E+06	1.901E+02	8.620E+00	2.405E+03	1.616E-01
2113	5.076E+03	2.773E+06	1.863E+02	8.449E+00	2.357E+03	1.584E-01
2114	4.976E+03	2.718E+06	1.826E+02	8.282E+00	2.311E+03	1.552E-01
2115	4.877E+03	2.664E+06	1.790E+02	8.118E+00	2.265E+03	1.522E-01
2116	4.781E+03	2.612E+06	1.755E+02	7.957E+00	2.220E+03	1.492E-01
2117	4.686E+03	2.560E+06	1.720E+02	7.800E+00	2.176E+03	1.462E-01
2118	4.593E+03	2.509E+06	1.686E+02	7.645E+00	2.133E+03	1.433E-01
2119	4.502E+03	2.460E+06	1.653E+02	7.494E+00	2.091E+03	1.405E-01
2120	4.413E+03	2.411E+06	1.620E+02	7.346E+00	2.049E+03	1.377E-01
2121	4.326E+03	2.363E+06	1.588E+02	7.200E+00	2.009E+03	1.350E-01
2122	4.240E+03	2.316E+06	1.556E+02	7.058E+00	1.969E+03	1.323E-01
2123	4.156E+03	2.271E+06	1.526E+02	6.918E+00	1.930E+03	1.297E-01
2124	4.074E+03	2.226E+06	1.495E+02	6.781E+00	1.892E+03	1.271E-01
2125	3.993E+03	2.182E+06	1.466E+02	6.647E+00	1.854E+03	1.246E-01
2126	3.914E+03	2.138E+06	1.437E+02	6.515E+00	1.818E+03	1.221E-01
2127	3.837E+03	2.096E+06	1.408E+02	6.386E+00	1.782E+03	1.197E-01
2128	3.761E+03	2.054E+06	1.380E+02	6.260E+00	1.746E+03	1.173E-01
2129	3.686E+03	2.014E+06	1.353E+02	6.136E+00	1.712E+03	1.150E-01
2130	3.613E+03	1.974E+06	1.326E+02	6.014E+00	1.678E+03	1.127E-01
2131	3.542E+03	1.935E+06	1.300E+02	5.895E+00	1.645E+03	1.105E-01
2132	3.472E+03	1.897E+06	1.274E+02	5.778E+00	1.612E+03	1.083E-01
2133	3.403E+03	1.859E+06	1.249E+02	5.664E+00	1.580E+03	1.062E-01
2134	3.335E+03	1.822E+06	1.224E+02	5.552E+00	1.549E+03	1.041E-01

APPENDIX C

Inapplicable Requirements

TABLE C – 1

INAPPLICABLE REQUIREMENTS

Cheyne Landfill
Zillah, Washington

Requirement	Emission Unit	Brief Discussion of Requirement	Basis
40 CFR 60 Subpart IIII	Facility	New Source Performance Standards for stationary compression ignition internal combustion engines	No stationary combustion engines exist at the facility.
40 CFR 60 Subpart Kb	Facility	New Source Performance Standards for Volatile Organic Liquid Storage Vessels	No affected sources at the facility.
40 CFR 72 – 78	Facility	Acid Rain Program	Applies only to certain electric generation and incineration facilities The subject facility does not generate electricity or incinerate waste.
WAC 173-400-050	Facility	Emission Standards for Combustion and Incineration Units	Yakima County does not operate any combustion or incineration units at CLF.
WAC 173-400-070(1) – (8)	Facility	Emission Standards for Certain Source Categories	Yakima County does not operate a wigwam burner, hog fuel boiler, orchard heater, grain elevator, catalytic cracking unit, sulfuric acid plant, or sewage sludge incinerator at CLF.
WAC 173-400-099 and YRCAA Regulation 1, Section 4.01	Facility	Registration Program	As a Title V source, the facility is not subject to the registration program.
WAC 173-400-112	Facility	Requirements for New Sources in Non- Attainment Areas	The CLF not located in a non-attainment area.
WAC 173-400-190	Facility	Requirements for Nonattainment Areas	The CLF is not located in a nonattainment area.
40CFR63 Subpart AAAA	Facility	MSW Landfill NESHAP	Facility is not a major source of HAP emissions and landfill currently emits less than 50 Mg NMOCs per year.
40CFR63 Subpart ZZZZ	Facility	Stationary Reciprocating Internal Combustion Engine NESHAP	No stationary reciprocating internal combustion engines are currently operated at CLF.

TABLE C – 2

INAPPLICABLE REQUIREMENTS

Cheyne Landfill
Zillah, Washington

Requirement	Emission Unit	Brief Discussion of Requirement	Basis
WAC 173-405	Facility	Kraft Pulping Mills	The CLF does not contain a kraft pulping mill.
WAC 173-406	Facility	Acid Rain Regulation	The CLF does not generate electricity.
WAC 173-407	Facility	CO2 Mitigation Program for Thermal Electric Generating Facilities	The CLF does not generate electricity.
WAC 173-410	Facility	Sulfate Pulping Mills	The CLF does not contain a sulfate pulping mill.
WAC 173-415	Facility	Primary Aluminum Plants	The CLF does not contain a primary aluminum plant.
WAC 173-433	Facility	Solid Fuel Burning Devices	The CLF does not operate a solid fuel burning device.
WAC 173-434	Facility	Solid Waste Incinerator Facilities	The CLF does not operate a solid waste incinerator.
WAC 173-490	Facility	Emissions Standards and Controls for Sources Emitting Volatile Organic Compounds (VOC)	The CLF is not located in an ozone non-attainment area.
WAC 173-491	Facility	Emissions Standards and Controls for Sources Emitting Gasoline Vapors	The CLF does not operate a gasoline marketing operation.