Bay Area Air Quality Management District

375 Beale Street, Suite 600
San Francisco, CA 94105
(415) 771-6000

Permit Evaluation
and
Statement of Basis

for

Renewal

of

MAJOR FACILITY REVIEW PERMIT

for

Acme Fill Corporation
Facility #A1464

Facility Address:
950 Waterbird Way
Martinez, CA 94553

Mailing Address:
PO Box 1108
Martinez, CA 94553

Application Engineer: Davis Zhu
Site Engineer: Davis Zhu

Application: 28020

March 2018

TABLE OF CONTENTS

A. Background 3

B. Facility Description 4

C. Permit Content 7
- I. Standard Conditions 7
- II. Equipment 7
- III. Generally Applicable Requirements 8
- IV. Source-Specific Applicable Requirements 9
- V. Schedule of Compliance 10
- VI. Permit Conditions 11
- VII. Applicable Limits and Compliance Monitoring Requirements 12
- VIII. Test Methods 13
- IX. Permit Shield 14

D. Alternate Operating Scenarios: 14

E. Differences between the Application and the Proposed Permit: 14

APPENDIX A
GLOSSARY 15

APPENDIX B
Responses to Comments from ACME to SOB and draft MFR Permit... 25

Title V Statement of Basis

Acme Fill Corporation
Plant # A1464
Application # 28020

A. Background

This facility is subject to the Operating Permit requirements of Title V of the federal Clean Air Act, Part 70 of Title 40 of the Code of Federal Regulations (CFR), and BAAQMD Regulation 2, Rule 6, Major Facility Review, because it is a designated facility as defined by BAAQMD Regulation 2-6-204. The Emission Guidelines for Municipal Solid Waste Landfills (40 CFR Part 60, Subpart Cc) require the owner or operator of a landfill that is subject to this part and that has a design capacity of greater than or equal to 2.5 million megagrams and 2.5 million cubic meters to obtain an operating permit pursuant to Part 70. As discussed in more detail below in Section C.IV of this report, this facility is subject to these emission guidelines and meets the designated facility criteria listed in 40 CFR § 60.32c(c).

Major Facility Operating permits (Title V permits) must meet specifications contained in 40 CFR Part 70 as contained in BAAQMD Regulation 2, Rule 6, Major Facility Review (MFR). The permits must contain all "applicable requirements" (as defined in BAAQMD Regulation 2-6-202), monitoring requirements, recordkeeping requirements, and reporting requirements. The permit holders must submit reports of all monitoring at least every six months and compliance certifications at least every year.

In the Bay Area, state and District requirements are also applicable requirements and are included in the permit. These requirements can be federally enforceable or non-federally enforceable. All applicable requirements are contained in Sections I through VI of the permit.

Each facility in the Bay Area is assigned a facility identifier that consists of a letter and a 4-digit number. This identifier is also considered to be the identifier for the permit. The identifier for this facility is A1464.

This facility received its initial Title V permit on April 17, 2003. The permit was renewed on December 14, 2011. Application #28020 is for a renewal of the Title V permit for this site. Although the current permit expired on December 13, 2016, it continues in force until the District takes final action on the permit renewal.

Pursuant to Regulation 2, Rule 6, section 416, the District has reviewed the terms and conditions of this Major Facility Review permit and determined that they are still valid and correct. This review included an analysis of applicability determinations for all sources, including those that have been modified or permitted since the issuance of the initial Major Facility Review Permit. The review also included an assessment of all monitoring in the permit for sufficiency to

determine compliance. The statement of basis documents for permit revisions that have occurred since the initial Major Facility Review permit was issued are hereby incorporated by reference and are available upon request. The standard sections of the permit have been upgraded to include new standard language used in all Title V permits. The proposed renewal permit clearly shows all proposed changes to the permit in strikeout/underline format. These changes are discussed in this Statement of Basis.

B. Facility Description

The Acme Fill Corporation (AFC) site (Facility #A1464) is a municipal solid waste disposal facility, located in Martinez, California, that has been in operation since 1949. The site is comprised of the following parcels: a 135-acre north parcel, an 87-acre east parcel, a 22-acre south parcel, and a 269-acre buffer zone/borrow area. A borrow area or borrow pit is an area of land where the overburden, consisting of unconsolidated rock, glacial debris, or other earth material overlying bedrock is extracted from the surface. Extraction occurs on a one-time basis or intermittently as need occurs, for use as fill materials by the extracting party in the form in which it is extracted. No milling is involved, except for the use of a scalping screen to remove large rocks, wood and trash. The material is used on land, which is relatively near the pit or borrow area, by the extracting party more for its bulk than its intrinsic qualities.

Of the 513 total acres of area, only the acreage from the north, east, and south parcels (244 acres) are permitted to accept waste. The south parcel is not addressed in this Title V permit since it is a discreet non-contiguous landfill located more than 1 mile from the north and east parcels and with less than 1,000,000 tons in place. Since the south parcel is closed and is not subject to NSPS or Emission Guidelines requirements for MSW Landfills or District regulations, it is not part of this stationary source (Site # A1464) and is not subject to Title V.

For active landfills, the District has changed the way that landfill permits are described. For this site, the single source number for Acme Landfill (S-1) has been split into three source numbers: S-1 for the waste decomposition process, S-13 for the waste and cover material dumping process, and S-14 for the excavation, bulldozing and compacting activities. Fugitive road dust emissions are included under both S-13 and S-14. These source description changes were made to improve the emission calculation methodology for each of these processes.

Permitted equipment for this facility include the landfill, which is equipped with a landfill gas collection system and an enclosed ground flare, a green waste grinding operation that is powered by a portable diesel engine, leachate treatment equipment, an emergency standby diesel generator set, and a water truck to control particulate emissions from the landfilling and waste recycling operations.

Currently, the actual cumulative waste in place amount for the AFC landfill is approximately 11,096,000 tons. According to permit Application 5630, AFC has been granted an increase in the total tons in place by an incremental 288,000 tons to a final cumulative capacity of 11,348,000 tons in place. The AFC was originally scheduled for closure in the year 2002. Due to Regional Water Quality Control Board directives, AFC is required to remain open to receive Class 3 wastes (non-hazardous, construction, and wood waste) until the final fill height is

reached. The final fill height will be 75 feet, and the landfill will have an appropriate side slope angle that will to minimize surface water infiltration and subsequent contamination.

Presently the AFC site accepts only wood and green wastes, construction and demolition wastes and other inert waste material. AFC does not accept any VOC-laden soils or other similarly contaminated material. AFC no longer accepts household waste materials. The maximum daily waste acceptance rate remains 1500 tons per day, but AFC has been accepting less than 100 tons per day on average. AFC plans to continue accepting waste at this landfill until it is filled to capacity (11,348,000 tons in place). AFC expects to reach full capacity in approximately 2021. When the capacity is reached, the landfill will no longer accept waste materials of any kind and will be closed.

Landfills generate landfill gas due to the waste decomposition process. The landfill gas contains methane and carbon dioxide (which are greenhouse gases: GHG) and small amounts of non-methane organic compounds (NMOC) and sulfur compounds. Many of the NMOCs are precursor organic compounds (POC), and many NMOCs are also toxic air contaminants (TACs) and hazardous air pollutants (HAPs). Hydrogen sulfide, a TAC, makes up about 95% or more of the sulfur compounds. District and EPA regulations require that landfill gas from larger landfills be continuously collected and controlled to reduce emissions of NMOCs to the atmosphere. These collection and control requirements also reduce GHG, TAC, and HAP emissions.

In accordance with these requirements, Acme Landfill (S-1) is equipped with a landfill gas collection system and landfill gas control systems. Landfill gas collection systems are perforated pipes that are buried in the refuse at numerous locations. For active collection systems, the perforated pipes are connected to blowers by solid pipes (referred to as laterals and headers). The blowers maintain a vacuum in the buried refuse and draw landfill gas into the perforated pipes. AFC's gas collection system currently includes 69 vertical gas collection wells and 28 horizontal collectors. During 2016, AFC collected an estimated average of 1434 cfm of landfill gas from S-1.

The bulk of the collected landfill gas is compressed and sent to the Central Contra Costa Sanitary District (CCCSD) sewage treatment plant (Site # A0907) for use as a fuel for two boilers or two sewage sludge incinerators. It may also be abated on-site by the A-2 Landfill Gas Flare. [1] These combustion sources destroy most of the methane, NMOC, TAC, and HAP that are present in the landfill gas; however, landfill gas combustion operations also produce secondary emissions comprised of nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter (PM), formaldehyde, and acid gases such as hydrogen chloride (HCl) and hydrogen fluoride (HF).

At this site, AFC operates a Waste Recycler (S-10) and a diesel-fired IC Engine (S-9) that provides power to S-10. The waste recycler emits particulate matter (PM) and the engine emits combustion products including: GHG, NO_x, CO, SO_2, POC, PM, and diesel PM (a TAC).

[1] The Central Contra Costa Sanitary District (CCCSD) sewage treatment plant (Site # A0907) is a separate company from the Acme Landfill Corporation. The two companies have different owners and different SIC codes. CCCSD is a Title V Major Facility. The applicable requirements for the boilers and sludge incinerators mentioned above are discussed in detail in the MFR Permit for Site # A0907.

The District has received an NSR application from this facility for which action has not yet been taken, Application #28999. The application involves a request to restore the permit to operate for S-9 as a Loss of Exemption engine. After a site visit in 2012, the inspector instructed Acme to follow the ATCM regulations to register the S-9 engine in ARB's DOORS program. S-9 was incorrectly archived since 2012.

On July 8, 2015, the District approved Acme's request for less than continuous operating of the horizontal collectors on the North and East Parcels for a 3-year period. The petition is effective from March 25, 2015 to March 25, 2018.

The AFC site also includes a process for treating leachate, or runoff, from the landfill. This leachate contains small amounts of precursor organic compounds and toxic compounds and must be treated before it can be disposed of or discharged. The leachate process is identified at S-200, and consists of the following components: a 13,000-gallon flow equalization tank, a 3,000-gallon contact tank, 2 aeration tanks at 13,000 gallon each, one clarifier for sludge dewatering, and one 6,000-gallon caustic storage tank. Although the leachate treatment process is a permitted source, emissions are not significant, estimated at less than 1 pound/day of VOC. Potential emissions are reduced through the biological processes that occur in the leachate treatment plant. Some VOC emissions occur through normal weathering of the liquid streams and through the air contacting process, the purpose of which is to provide oxygen for the biological reactions to occur.

This facility also has an Emergency Standby Diesel Engine - Generator Set (S-201) that provides power to leachate treatment operations in the event of a power failure. This engine emits combustion products including: GHG, NO_x, CO, SO_2, POC, PM, and diesel PM.

Table 1. 2016 Facility Emissions
Site #A1464, Acme Fill Corporation

Source Number/Description	Emissions (tons/year)				
	PM10	**VOC**	**NOx**	**SO2**	**CO**
S-1, Landfill with Gas Collection System	0	31.66	0.04	0	0
S-10, Track-Mounted Heavy-Duty Waste Recycler	0	0.04	0	0	0
S-13, Waste and Cover Material Dumping	0.26	0	0	0	0
S-14, Excavating, Bulldozing, and Comp	0.13	0	0	0	0
S-200 Leachate Treatment Facility	0	0.04	0	0	0
S-201 Emergency Standby Generator	0	0.04	0	0	0
A-2, Enclosed LFG Flare	0.02	0.02	0.16	0.04	0.86
Total Facility Emissions	**0.4**	**31.8**	**0.2**	**0.0**	**0.9**

C. Permit Content

The legal and factual basis for the permit follows. The permit sections are described in the order presented in the permit. Routine changes to the standard permit text in Sections I "Standard Conditions", III "Generally Applicable Requirements", and X "Glossary" are not considered part of the Title V permit renewal process, but may be made at the discretion of the District during the term of this permit.

Changes to Permit, Title Page:

- The BAAQMD address and contact information are updated.

I. Standard Conditions

This section contains administrative requirements and conditions that apply to all facilities. If the Title IV (Acid Rain) requirements for certain fossil-fuel fired electrical generating facilities or the accidental release (40 CFR § 68) programs apply, the section will contain a standard condition pertaining to these programs. This permit does not include Title IV or accidental release provisions.

Many of these conditions derive from 40 CFR § 70.6, Permit Content, and BAAQMD Regulation 2-6-409, Permit Content, which dictate certain standard conditions that must be placed in the permit. The language that the District has developed for many of these requirements has been adopted into the BAAQMD Manual of Procedures, Volume II, Part 3, Section 4, and therefore must appear in the permit.

The standard conditions also contain references to BAAQMD Regulation 1 and Regulation 2. These are the District's General Provisions and Permitting rules.

Changes to Permit, Section I:

- The District is updating the dates of adoption and approval of rules in Standard Condition 1.A.
- Renewal issuance and expiration dates are updated in Section I.B.
- In Section I.F., obsolete reporting dates are removed and BAAQMD contact information is updated.
- US EPA contact information is updated in Section I.G.

II. Equipment

This section of the permit lists all permitted or significant sources. Each source is identified by an S and a number (e.g., S-10). Permitted sources are those sources that require a BAAQMD operating permit pursuant to BAAQMD Rule 2-1-302. Each of the permitted sources has previously been issued a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. These permits are issued in accordance with state law and

the District's regulations. The capacities in the permitted sources table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-403. The permitted sources are listed in Table II-A.

Significant sources are those sources that have a potential to emit of more than 2 tons of a "regulated air pollutant," as defined in BAAQMD Rule 2-6-222, per year or 400 pounds of a "hazardous air pollutant," as defined in BAAQMD Rule 2-6-210, per year. This facility has no unpermitted significant sources.

All abatement (control) devices that control permitted or significant sources are listed. Each abatement device whose primary function is to reduce emissions is identified by an A and a number (e.g., A-24). If a source is also an abatement device, such as when an engine is used to abate VOC emissions, it will be listed in this table but will have an "S" number. An abatement device that is also a source (such as a thermal oxidizer that burns fuel) will have an "A" number. An abatement device may also be a source (such as a thermal oxidizer that burns fuel) of secondary emissions. If the primary function of a device is to control emissions, it is considered an abatement (or "A") device. If the primary function of a device is a non-control function, the device is a source (or "S").

The District has an exempt equipment list that clarifies the status of various sources and operations. Table II-C will identify any equipment or operations that are located at this facility but that are exempt from Title V permitting requirements. Typically, this table will include equipment or operations that are exempt from the District requirement to have a permit to operate pursuant to BAAQMD Regulation 2, Rule 1, Sections 103, 105, or 113-128 and that are not significant sources. However, it may also include equipment or operations that are required to have a District permit to operate but that are exempt from BAAQMD Regulation 2, Rule 6, Major Facility Review pursuant to Regulation 2, Rule 6, Sections 110-114. The applicable exemption will be identified in Table II-C. Although equipment listed in Table II-C is not required to be identified in the Title V permit, this exempt equipment must still comply with any applicable District, state, or federal regulations.

The equipment section is part of the facility description. It contains information that is necessary for applicability determinations, such as fuel types, contents or sizes of tanks, etc. This information is part of the factual basis of the permit.

<u>Changes to Permit, Section II:</u>

- The single source number for Acme Landfill (S-1) was split into three source numbers: S-1 for the waste decomposition process, S-13 for the waste and cover material dumping process, and S-14 for the excavation, bulldozing and compacting activities. The new source numbers (S-13 and S-14) were added and the description on S-1 was revised to reflect these changes.
- The District updated the number of vertical wells for S-1 and clarified that the horizontal collectors for S-1 are operating less than continuously.
- The description of S-200 was clarified.

III. Generally Applicable Requirements

This section of the permit lists requirements that generally apply to all sources at a facility including insignificant sources and portable equipment that may not require a District permit. If a generally applicable requirement applies specifically to a source that is permitted or significant, the standard will also appear in Section IV and the monitoring for that requirement will appear in Sections IV and VII of the permit. Parts of this section apply to all facilities (e.g., particulate, architectural coating, odorous substance, and sandblasting standards). In addition, standards that apply to insignificant or unpermitted sources at a facility (e.g., refrigeration units that use more than 50 pounds of an ozone-depleting compound), are placed in this section.

Unpermitted sources are exempt from normal District permits pursuant to an exemption in BAAQMD Regulation 2, Rule 1. They may, however, be specifically described in a Title V permit if they are considered a significant source pursuant to the definition in BAAQMD Rule 2-6-239. This facility does not have any significant sources that do not have District permits.

Changes to Permit, Section III:

- The dates of adoption or approval of the rules and their "federal enforceability" status in Table III have been updated.
- The District added a new potentially applicable regulation that was adopted in November 2017: BAAQMD Regulation 11, Rule 18: Reduction of Risk from Air Toxic Emissions at Existing Facilities.
- AFC has accepted refrigeration appliance waste for several years, therefore, for Table III, the District is adding the applicable sections of 40 CFR Part 82, Subpart F, Protection of Stratospheric Ozone – Recycling and Emissions Reduction.

IV. Source-Specific Applicable Requirements

This section of the permit lists the applicable requirements that apply to permitted or significant sources. These applicable requirements are contained in tables that pertain to one or more sources that have the same requirements. The order of the requirements is:

- District Rules
- SIP Rules (if any) are listed following the corresponding District Rules. SIP rules are District rules that have been approved by EPA for inclusion in the California State Implementation Plan. SIP rules are "federally enforceable" and a "Y" (yes) indication will appear in the "Federally Enforceable" column. If the SIP rule is the current District rule, separate citation of the SIP rule is not necessary and the "Federally Enforceable" column will have a "Y" for "yes". If the SIP rule is not the current District rule, the SIP rule or the necessary portion of the SIP rule is cited separately after the District rule. The SIP portion will be federally enforceable; the non-SIP version will not be federally enforceable, unless EPA has approved it through another program. [NOTE: for landfills, BAAQMD Regulation 8, Rule 34 is

federally enforceable because it was approved into the state plan for landfills pursuant to 40 CFR § 60, Subpart Cc.]

- Other District requirements, such as the Manual of Procedures, as appropriate.
- Federal requirements (other than SIP provisions)
- BAAQMD permit conditions. The text of BAAQMD permit conditions is found in Section VI of the permit.
- Federal permit conditions. The text of Federal permit conditions, if any, is found in Section VI of the permit.

Section IV of the permit contains citations to all applicable requirements. The text of the requirements is found in the regulations, which are readily available on the District's or EPA's websites, or in the permit conditions, which are found in Section VI of the permit. All monitoring requirements are cited in Section IV. Section VII is a cross-reference between the limits and monitoring requirements. A discussion of monitoring is included in Section C.VII of this permit evaluation/statement of basis.

The specific changes to Section IV are as follows:

Changes to Section IV:

- Correct source list for Table IV-A.
- Correct numbering for Tables IV-C-E, which are now Tables IV-B, C, and D.
- In Table IV-D, Source-Specific Applicable Requirements for the new S-201 Standby Emergency Diesel Engine – Generator Set, Regulation 9-8-110.1 and 110.3 Exemptions provisions are removed since these regulations expired 1/1/2012. Regulation 9-8-330, Emergency Standby Engines Hours of Operation, Regulation 9-8-330.2 and 330.3 are removed since these regulations expired 1/1/2012.
- In Table IV-D, remove obsolete future effective dates.

V. Schedule of Compliance

A schedule of compliance is required in all Title V permits pursuant to BAAQMD Regulation 2-6-409.10 which provides that a major facility review permit shall contain the following information and provisions:

"409.10 A schedule of compliance containing the following elements:

10.1 A statement that the facility shall continue to comply with all applicable requirements with which it is currently in compliance;

10.2 A statement that the facility shall meet all applicable requirements on a timely basis as requirements become effective during the permit term; and

10.3 If the facility is out of compliance with an applicable requirement at the time of issuance, revision, or reopening, the schedule of compliance shall contain a plan by which the facility will achieve compliance. The plan shall contain deadlines for each item in the plan. The schedule of compliance shall also contain a requirement for submission of progress reports by the facility at least every six months. The progress reports shall contain the dates by which each item in the plan was achieved and an explanation of why

any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted."

Since the District has not determined that the facility is out of compliance with an applicable requirement, the schedule of compliance for this permit contains only sections 2-6-409.10.1 and 2-6-409.10.2.

The BAAQMD Compliance and Enforcement Division has conducted a review of the compliance record of this facility and has determined that the Acme Fill Cooperation has been in intermittent compliance during the previous 5 years. The Compliance and Enforcement Divisions has noted no evidence of on-going non-compliance and no recurring pattern of violations that would warrant consideration of a compliance schedule.

Changes to Section V:
The District is not proposing any changes to this section.

VI. Permit Conditions

During the Title V permit development, the District has reviewed the existing permit conditions, deleted the obsolete conditions, and, as appropriate, revised the conditions for clarity and enforceability. Each permit condition is identified with a unique numerical identifier, up to five digits.

While the District has authority to revise the existing permits, and is doing so here concomitantly with the Title V process, it also has authority to supplement the terms of existing permits through the Title V process itself. When necessary to meet Title V requirements, additional monitoring, recordkeeping, or reporting has been added to the permit.

All changes to existing permit conditions are clearly shown in "strike-out/underline" format in the proposed permit. When the permit is issued, all 'strike-out" language will be deleted; all "underline" language will be retained.

The existing permit conditions are derived from previously issued District Authorities to Construct (A/C) or Permits to Operate (P/O). Permit conditions may also be imposed or revised as part of the annual review of the facility by the District pursuant to California Health and Safety Code (H&SC) § 42301(e), through a variance pursuant to H&SC § 42350 et seq., an order of abatement pursuant to H&SC § 42450 et seq., or as an administrative revision initiated by District staff. After issuance of the Title V permit, permit conditions will be revised using the procedures in Regulation 2, Rule 6, Major Facility Review.

Conditions that are obsolete or that have no regulatory basis have been deleted from the permit.

The regulatory basis is listed following each condition. The regulatory basis may be a rule or regulation. The District is also using the following terms for regulatory basis:

- BACT: This term is used for a condition imposed by the APCO to ensure compliance with the Best Available Control Technology in Regulation 2-2-301.

- Cumulative Increase: This term is used for a condition imposed by the APCO that limits a source's operation to the operation described in the permit application pursuant to BAAQMD Regulation 2-1-403.
- Offsets: This term is used for a condition imposed by the APCO to ensure compliance with the use of offsets for the permitting of a source or with the banking of emissions from a source pursuant to Regulation 2, Rules 2 and 4.
- PSD: This term is used for a condition imposed by the APCO to ensure compliance with a Prevention of Significant Deterioration permit pursuant to Regulation 2, Rule 2.
- TRMP: This term was used for a condition imposed by the APCO to ensure compliance with limits that arise from the District's former Toxic Risk Management Policy. In 2005, this Toxic Risk Management Policy was replaced by BAAQMD Regulation 2, Rule 5. References to TRMP are being replaced by citations of the applicable sections in BAAQMD Regulation 2, Rule 5. Neither the TRMP nor BAAQMD Regulation 2, Rule 5 are federally enforceable requirements.

During the initial Title V permit development, the District reviewed the existing permit conditions, deleted the obsolete conditions, and, as appropriate, revised the conditions for clarity and enforceability. When necessary to meet Title V requirements, additional monitoring, recordkeeping, or reporting requirements have been added to the permit. No changes have occurred to the facility operations since the last revision of the Title V permit, but the District is incorporating changes that the District has made to the descriptions of these existing operations. The permit conditions have been reviewed again for this permit renewal.

Changes to Section VI:

- The single source number for Acme Landfill (S-1) was split into three source numbers: S-1 for the waste decomposition process, S-13 for the waste and cover material dumping process, and S-14 for the excavation, bulldozing and compacting activities. Reflect these source description changes for S-1, S-13, and S-14 in the device descriptions for Condition #19906.
- For Condition #19906, add the allowable gas collection system components changes.
- Condition #19906, part 3(a): deleted due to removal of the Bulldog Gas & Power (BAAQMD Plant 13782) sources. Also, the specific devices for Central Contra Costa Sanitary District were removed at the Applicant's request, because the Applicant has no control over these devices.
- Condition #19906, part 4(a): update the total vertical wells number to 69 according to the facility's start-up notice of 9 newly installed wells in December 2013; update remaining authorizations to install new vertical wells to 1.
- Condition #19906, part 5(d): Added past renewal dates for less than continuous operation petitions.
- Condition #21474, clarified limits and record requirements in Parts 3 and 8.

VII. Applicable Limits and Compliance Monitoring Requirements

This section of the permit is a summary of numerical limits and related monitoring requirements for each source. The summary includes a citation for each monitoring requirement, frequency of monitoring, and type of monitoring. The applicable requirements for monitoring are completely contained in Sections IV, Source-Specific Applicable Requirements, and VI, Permit Conditions, of the permit.

Monitoring decisions are typically the result of balancing several different factors including: 1) the likelihood of a violation given the characteristics of normal operation, 2) degree of variability in the operation and in the control device, if there is one, 3) the potential severity of impact of an

undetected violation, 4) the technical feasibility and probative value of indicator monitoring, 5) the economic feasibility of indicator monitoring, and 6) whether there is some other factor, such as a different regulatory restriction applicable to the same operation, that also provides some assurance of compliance with the limit in question.

These factors are the same as those historically applied by the District in developing monitoring for applicable requirements. It follows that, although Title V calls for a re-examination of all monitoring, there is a presumption that these factors have been appropriately balanced and incorporated in the District's prior rule development and/or permit issuance. It is possible that, where a rule or permit requirement has historically had no monitoring associated with it, no monitoring may still be appropriate in the Title V permit if, for instance, there is little likelihood of a violation. Compliance behavior and associated costs of compliance are determined in part by the frequency and nature of associated monitoring requirements. As a result, the District will generally revise the nature or frequency of monitoring only when it can support a conclusion that existing monitoring is inadequate.

The District has examined the monitoring for all other emission limits and has determined that monitoring is adequate to provide a reasonable assurance of compliance.

Changes to Section VII:

- Correct source list for Table VII-A.
- Removed unnecessary text from Table VII-A for the Condition # 19906, parts 3-5 landfill gas abatement requirements.
- Correct numbering for Tables VII-C-E, which are now Tables VII-B, C, and D.
- In Table VII-B, clarify waste storage limit and add the new waste processing limit.
- In Table VII-D, remove limit for Regulation 9-8-330.2, because this operating time restriction expired 1/1/2012.
- In Table VII-D, remove obsolete future effective dates.

VIII. Test Methods

This section of the permit lists test methods that are associated with standards in District or other rules. It is included only for reference. In most cases, the test methods in the rules are source test

methods that can be used to determine compliance but are not required on an ongoing basis. They are not applicable requirements.

If a rule or permit condition requires ongoing testing, the requirement will also appear in Section IV of the permit.

Changes to Section VIII:
The District is not proposing any changes to this section.

IX. Permit Shield:

The District rules allow two types of permit shields. The permit shield types are defined as follows: (1) A provision in a major facility review permit that identifies and justifies specific federally enforceable regulations and standards are not applicable to a source or group of sources, or (2) A provision in a major facility review permit that identifies and justifies specific federally enforceable applicable requirements for monitoring, recordkeeping and/or reporting which are subsumed because other applicable requirements for monitoring, recordkeeping, and reporting in the permit will assure compliance with all emission limits.

The second type of permit shield is allowed by EPA's White Paper 2 for Improved Implementation of the Part 70 Operating Permits Program. The District uses the second type of permit shield for all streamlining of monitoring, recordkeeping, and reporting requirements in Title V permits. The District's program does not allow other types of streamlining in Title V permits.

No permit shields were requested by the applicant.

Changes to Section IX:
The District is not proposing any changes to this section.

X. Revision History:

This section of the permit summarizes each revision to the permit.

Changes to Section X:

- The District is adding the permit revisions associated with this MFR Renewal Permit (Application # 28020) to Section X.

D. Alternate Operating Scenarios:

No alternate operating scenario has been requested for this facility.

E. Differences Between the Application and the Proposed Permit:

The Title V permit renewal application was originally submitted on June 3, 2016. The Title V permit was last renewed on December 14, 2011. This version is the basis for constructing the proposed Title V permit. There is an outstanding NSR Application #28999 to reinstate S-9 diesel engine for S-10 Waste Recycler. Once this application is finished, the engine will be incorporated into the permit during the next revision.

In addition to the changes discussed above, the District has proposed numerous updates to the standard permit language, regulatory descriptions, and regulatory amendment dates throughout the permit to reflect regulatory changes, to clarify limits and other applicable requirements, to explain permit terminology, to remove obsolete requirements, and to correct permit errors. Each of these changes is explained in detail in Section C of this document.

APPENDIX A

GLOSSARY

ACT
Federal Clean Air Act

AP-42
An EPA Document "Compilation of Air Pollutant Emission Factors" that is used to estimate emissions for numerous source types. It is available electronically from EPA's website at: http://www.epa.gov/ttn/chief/ap42/index.html

APCO
Air Pollution Control Officer: Head of Bay Area Air Quality Management District

ARB
Air Resources Board

ASTM
American Society of Testing and Materials

ATC
Authority to Construct

ATCM
Airborne Toxic Control Measure

BAAQMD
Bay Area Air Quality Management District

BACT
Best Available Control Technology

BARCT
Best Available Retrofit Control Technology

Basis
The underlying authority which allows the District to impose requirements.

C1
An organic chemical compound with one carbon atom, for example: methane

C3
An organic chemical compound with three carbon atoms, for example: propane

C5
An organic chemical compound with five carbon atoms, for example: pentane

C6
An organic chemical compound with six carbon atoms, for example: hexane

CAA
The federal Clean Air Act

CAAQS
California Ambient Air Quality Standards

CAPCOA
California Air Pollution Control Officers Association

CARB
California Air Resources Board (same as ARB)

CCR
California Code of Regulations

CEC
California Energy Commission

CEQA
California Environmental Quality Act

CEM
A "continuous emission monitor" is a monitoring device that provides a continuous direct measurement of some pollutant (e.g. NOx concentration) in an exhaust stream.

CFR
The Code of Federal Regulations. 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

CH4 or CH_4
Methane

CIWMB
California Integrated Waste Management Board

CO
Carbon Monoxide

CO2 or CO_2
Carbon Dioxide

Cumulative Increase
The sum of permitted emissions from each new or modified source since a specified date pursuant to BAAQMD Rule 2-1-403, Permit Conditions (as amended by the District Board on 7/17/91) and SIP Rule 2-1-403, Permit Conditions (as approved by EPA on 6/23/95). Used to determine whether threshold-based requirements are triggered.

District
The Bay Area Air Quality Management District

E6, E9, E12
Very large or very small number values are commonly expressed in a form called scientific notation, which consists of a decimal part multiplied by 10 raised to some power. For example, 4.53E6 equals (4.53) x (10^6) = (4.53) x (10x10x10x10x10x10) = 4,530,000. Scientific notation is used to express large or small numbers without writing out long strings of zeroes.

EL
Emission limit

EPA
The federal Environmental Protection Agency.

Excluded
Not subject to any District regulations.

Federally Enforceable, FE
All limitations and conditions which are enforceable by the Administrator of the EPA including those requirements developed pursuant to 40 CFR Part 51, subpart I (NSR), Part 52.21 (PSD), Part 60 (NSPS), Part 61 (NESHAPs), Part 63 (MACT), and Part 72 (Permits Regulation, Acid Rain), including limitations and conditions contained in operating permits issued under an EPA-approved program that has been incorporated into the SIP.

FID
Flame Ionization Detector

FP
Filterable Particulate as measured by BAAQMD Method ST-15, Particulate.

FR
Federal Register

GLM
Ground Level Monitor

Grain
1/7000 of a pound

HAP
Hazardous Air Pollutant. Any pollutant listed pursuant to Section 112(b) of the Act. Also refers to the program mandated by Title I, Section 112, of the Act and implemented by 40 CFR Part 63.

H2S or H_2S
Hydrogen sulfide

H2SO4 or H_2SO_4
Sulfuric Acid

H&SC
Health and Safety Code

Hg
Mercury

HHV
Higher Heating Value. The quantity of heat evolved as determined by a calorimeter where the combustion products are cooled to 60F and all water vapor is condensed to liquid.

LFG
Landfill gas

LHV
Lower Heating Value. Similar to the higher heating value except that the water produced by the combustion is not condensed but retained as vapor at 60°F.

Long ton
2200 pounds

Major Facility
A facility with potential emissions of: (1) at least 100 tons per year of regulated air pollutants, (2) at least 10 tons per year of any single hazardous air pollutant, and/or (3) at least 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity of hazardous air pollutants as determined by the EPA administrator.

MFR
Major Facility Review. The District's term for the federal operating permit program mandated by Title V of the Federal Clean Air Act and implemented by District Regulation 2, Rule 6.

MOP
The District's Manual of Procedures.

MSDS
Material Safety Data Sheet

MSW
Municipal solid waste

MTBE
Methyl tertiary-butyl ether

MW
Molecular weight

N2 or N_2
Nitrogen

NA
Not Applicable

NAAQS
National Ambient Air Quality Standards

NESHAPS
National Emission Standards for Hazardous Air Pollutants. See in 40 CFR Parts 61 and 63.

NMHC
Non-methane Hydrocarbons (Same as NMOC)

NMOC
Non-methane Organic Compounds (Same as NMHC)

NO2 or NO_2
Nitrogen Dioxide

NOx or NO_x
Oxides of nitrogen.

NSPS
Standards of Performance for New Stationary Sources. Federal standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the Federal Clean Air Act, and implemented by 40 CFR Part 60 and District Regulation 10.

NSR
New Source Review. A federal program for pre-construction review and permitting of new and modified sources of pollutants for which criteria have been established in accordance with Section 108 of the Federal Clean Air Act. Mandated by Title I of the Federal Clean Air Act and implemented by 40 CFR Parts 51 and 52 and District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

O2 or O_2
Oxygen

Offset Requirement
A New Source Review requirement to provide federally enforceable emission offsets for the emissions from a new or modified source. Applies to emissions of POC, NOx, PM10, and SO2.

Phase II Acid Rain Facility
A facility that generates electricity for sale through fossil-fuel combustion and is not exempted by 40 CFR 72 from Titles IV and V of the Clean Air Act.

POC
Precursor Organic Compounds

PM
Particulate Matter

PM10 or PM_{10}
Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns

PSD
Prevention of Significant Deterioration. A federal program for permitting new and modified sources of those air pollutants for which the District is classified "attainment" of the National Air Ambient Quality Standards. Mandated by Title I of the Act and implemented by both 40 CFR Part 52 and District Regulation 2, Rule 2.

Regulated Organic Liquid
"Regulated organic liquids" ae those liquids which require permits, or which are subject to some regulation, when processed at a liquid-handling operation. For example, refinery marine terminals, regulated organic liquids are defined as "organic liquids" in Regulation 8, Rule 44.

RCRA
Resource Conservation and Recovery Act

RWOCB
Regional Water Quality Control Board

S
Sulfur

Short ton
2000 pounds

SIP
State Implementation Plan. State and District programs and regulations approved by EPA and developed in order to attain the National Air Ambient Quality Standards. Mandated by Title I of the Act.

SO2 or SO_2
Sulfur dioxide

SOCMI
Synthetic Organic Compound Manufacturing Industry

TAC
Toxic Air Contaminant (as identified by CARB)

THC
Total Hydrocarbons (NMHC plus methane) (same as TOC)

Therm
100,000 British Thermal Units

Title V
Title V of the federal Clean Air Act. Requires a federally enforceable operating permit program for major and certain other facilities.

TOC
Total Organic Compounds (NMOC plus methane, same as THC)

TPH
Total Petroleum Hydrocarbons

TRMP
Toxic Risk Management Plan

TRS
Total Reduced Sulfur, which is a measure of the amount of sulfur-containing compounds in a gas stream, typically a fuel gas stream, including, but not limited to hydrogen sulfide. The TRS content of a fuel gas determines the concentration of SO_2 that will be present in the combusted fuel gas, since sulfur compounds are converted to SO_2 by the combustion process.

TSP
Total Suspended Particulate

TVP
True Vapor Pressure

VOC
Volatile Organic Compounds

Units of Measure:

atm	=	atmospheres
bbl	=	barrel of liquid (42 gallons)
bhp	=	brake-horsepower
btu	=	British Thermal Unit
BTU	=	British Thermal Unit
°C	=	degrees Centigrade
cfm	=	cubic feet per minute
dscf	=	dry standard cubic feet
°F	=	degrees Fahrenheit
ft^3	=	cubic feet
g	=	grams
gal	=	gallon
gpm	=	gallons per minute
gr	=	grains
hp	=	horsepower
hr	=	hour
in	=	inches

Units of Measure:

kW	=	kilowatts
lb	=	pound
lbmol	=	pound-mole
in	=	inches
max	=	maximum
m^2	=	square meter
m^3	=	cubic meters
min	=	minute
mm	=	million
MM	=	million
MM BTU	=	million BTU
M cf	=	one thousand cubic feet
MMcf	=	million cubic feet
Mg	=	mega grams
MW	=	megawatts
ppb	=	parts per billion
ppbv	=	parts per billion, by volume
ppm	=	parts per million
ppmv	=	parts per million, by volume
ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
scf	=	standard cubic feet
scfm	=	standard cubic feet per minute
sdcf	=	standard dry cubic feet
sdcfm	=	standard dry cubic feet per minute
yd	=	yard
yd^3	=	cubic yards
yr	=	year

APPENDIX B
Responses to Comments from ACME to the SOB and draft MFR Permit

Comment to the SOB: Permit Evaluation and Statement of Basis (Page 5, 3rd paragraph): Please revise the number of vertical gas collection wells to 69 and include a statement that landfill gas is processed either at the Gas Plant or through the flare.

Response: Corrected.

Comment to the SOB: Permit Evaluation and Statement of Basis (Page 6, 3rd paragraph): Please remove the word "secondary" from one secondary clarifier and delete reference to a 700 gallon sludge thickening tank, one slurry tank with mixer, and a mechanical filter press for sludge dewatering as these components are not present at the leachate treatment plant.

Response: Updated per suggestion.

Comment to the MFR Permit: Major Facility Review Permit (page 5, I. Standard Conditions, F. Monitoring Reports) Acme requests that the reporting periods be changed to January 1 through June 30 and July 1 through December 31. Several of the throughput limits are based on a calendar year and other CARB reports are required for calendar year operations. Modification of the reporting periods would simplify throughput limit accounting and streamline reporting tasks.

Response: The reporting periods will be changed to proposed new dates. However, the facility should ensure a new monitoring report must be submitted to the District less than six months from last submittal, before the next effective starting date.

Comment to the MFR Permit: Major Facility Review Permit (page 6, II. Equipment, Table II A - Permitted Sources), Remove the word secondary from secondary clarifier.

Response: Removed.

Comment to the MFR Permit: Major Facility Review Permit (page 37, VI. Permit Conditions, Condition #19906, 3.) Acme provides gas to CCCSD but has no control of how the gas is used once it is delivered. Therefore, please delete the CCCSD sources included in this condition from the Acme report.

Response: Specific CCCSD sources were removed.

Comment to the MFR Permit: Major Facility Review Permit (page 44, VI. Permit Conditions, Condition #21474, 3.) Please clarity that this condition applies to unprocessed green waste. Once the green waste is processed, Acme may use it for onsite purposes (alternative daily cover or beneficial reuse).

Response: Original application AN9132 was reviewed and the condition applies to incoming green waste only. We can specify "incoming green waste" in Permit Condition 21474 Part 3. Also, we would like to add "limit of 96,000 tons/year of incoming green waste". This limit is based on the 80 ton/hr and 1200 hr/year limits set in the original application AN 9132.

Comment to the MFR Permit: Major Facility Review Permit (page 58, VII. Applicable Conditions, Table VII-C) Please delete the total carbon monitoring requirement for S-200. There are no exhaust stacks at this source.

Response: This is a general monitoring requirement for all facilities. For sources in ACME without exhaust stacks, please use influent, effluent sampling and calculation to demonstrate the total carbon emissions from S-200 is less than 15 pounds/day.

Comment to the MFR Permit: Major Facility Review Permit (page 60 and 61, VII. Applicable Limits and Compliance Monitoring Requirements, Table VII-D) There are three different hours of operation limits provide in this table. Can reference to the Federal limits be deleted since the BAAQMD limits are more stringent?

Response: The Federal limit can't be deleted since it's federally enforceable. Complying with the State and District limits will automatically comply with the federal limit.