

Bay Area Air Quality Management District

939 Ellis Street
San Francisco, CA 94109
(415) 771-6000

**Permit Evaluation
and
Statement of Basis
for
MAJOR FACILITY REVIEW PERMIT
MINOR REVISION**

for
**Waste Management of Alameda County
Facility #A2066**

Facility Address:
10840 Altamont Pass Road
Livermore, CA 94550

Mailing Address:
10840 Altamont Pass Road
Livermore, CA 94550

Application Engineer: Scott Owen
Site Engineer: Carol Allen

Application: 2653

TABLE OF CONTENTS

A.	BACKGROUND	3
	Site Description:	3
	Non-Retail Gasoline Dispensing Facility (S-99):	3
	Project Description:	3
B.	EMISSIONS	4
C.	STATEMENT OF COMPLIANCE	4
	Regulation 2, Rule 1:	4
	Regulation 2, Rule 2:	4
	New Source Review for Toxic Air Contaminants:	5
	Regulation 2, Rule 6:	5
	Regulation 8, Rule 7:	6
	Federal Requirements:	6
D.	MFR PERMIT MODIFICATIONS.....	6
	Sections I-V:	6
	Section VI:	6
	Section VII:	6
	Sections VIII-IX:	7
	Section X:	7
	Sections XI-XII:	7
E.	RECOMMENDATION	7

SUPPLEMENTAL ENGINEERING EVALUATION and STATEMENT of BASIS

Waste Management of Alameda, Inc.; PLANT # 2066

APPLICATION # 2653

A. BACKGROUND

Site Description:

Waste Management of Alameda, Inc. (Waste Management or WM) operates the Altamont Landfill and Resource Recovery Facility in Livermore, CA. This facility includes the Bay Area's largest active landfill (S-2 with more than 30 million tons of refuse in place), two 3 MW Gas Turbines (S-6 and S-7, landfill gas fired) equipped with Fogging Systems (A-6 and A-7), two 1877 bhp IC Engines (S-23 and S-24, landfill gas fired), one 71 MM BTU/hour Landfill Gas Flare (A-15), waste water treatment operations (permitted: S-19, S-140, and S-141; exempt: S-12, S-20, S-28, S-130, A-130, and S-180), a non-retail gasoline dispensing facility (S-99), and nine diesel engines providing portable or standby power (S-190, S-191, S-192, S-193, S-194, and S-195, S-196, S-197, and S-198).

Non-Retail Gasoline Dispensing Facility (S-99):

Waste Management was granted an Authority to Construct under Application # 2653 on August 27, 2001 to replace an existing 1000 gallon above-ground storage tank with a new above ground storage tank. The new tank is a split tank with a total capacity of 3000 gallons (2500 gallons for gasoline and 500 gallons for diesel). The dispensing operation is equipped with one gasoline nozzle, a two-point Phase I vapor control system and a balance Phase II vapor recovery system. The engineering evaluation for the Authority to Construct neglected to consider the offset requirements for this facility. The Authority to Construct limited S-99 to a maximum gasoline throughput of 940,000 gallons/year, which was the maximum throughput rate allowed under the District's Risk Management Policy without undergoing a risk screening analysis.

The failure to consider Regulation 2-2-302 offset requirements was caught prior to issuance of the Permit to Operate for the new storage tank. Waste Management's consultant was advised that the District could not issue the Permit to Operate with a throughput limit greater than 8,100 gallons/year (the baseline throughput rate for the old tank) unless Waste Management could provide offsets for any POC emission increases associated with a higher throughput rate. Waste Management indicated that a throughput limit of 30,000 gallons/year would be an acceptable limit, and Waste Management agreed to provide the necessary offsets. However due to administrative reasons, the District needed to issue the Permit to Operate for the new storage tank before Waste Management could provide the POC offsets required for a 30,000 gallon/year throughput limit. Therefore, the District issued the Permit to Operate for S-99 with a throughput limit of 8,100 gallons/year, but the District agreed to revise the throughput limit for S-99 upon receipt of the required offsets.

Project Description:

On December 9, 2003, Waste Management requested to increase the throughput limit for S-99 from 8,100 gallons/year to 30,000 gallons/year. Waste Management surrendered Banking Certificate # 905 for 0.716 tons/year of POC emission reduction credits to offset the emission increases associated with this request.

Modify Gasoline Throughput Limit at the S-99 Non-Retail Gasoline Dispensing Facility

B. EMISSIONS

From the CAPCOA Industry-wide Risk Assessment Guidelines, the total POC emissions from above ground storage tanks are 1.52 pounds of POC per thousand gallons of throughput. Gasoline vapors include several toxic air contaminants such as benzene, ethyl benzene, toluene, and xylene. The most significant toxic air contaminant in gasoline vapors is benzene, which makes up 0.5 % by weight of the POC emissions. Maximum permitted emissions from S-99 at a gasoline throughput rate of 30,000 gallons/year (30 M gallons/year) are:

$$(30 \text{ M gallons/year}) * (1.52 \text{ pounds POC/Mgal}) = 45.6 \text{ pounds/year} = 0.023 \text{ tons/year of POC}$$
$$(45.6 \text{ pounds POC/year}) * (0.005 \text{ pounds benzene/pound POC}) = 0.23 \text{ pounds/year of benzene}$$

Maximum emissions are expected to occur during loading of gasoline into the storage tank. The maximum daily throughput rate at the storage tank is equal to one tank turnover per day or 2500 gallons/day (2.5 M gallons/day) of gasoline. Maximum daily emissions are:

$$(2.5 \text{ M gallons/day}) * (1.52 \text{ pounds POC/M gallon}) = 3.8 \text{ pounds/day of POC}$$

The baseline throughput rate for S-99 is 8,100 gallons/year. Emission increases for this throughput increase request are calculated below.

Throughput Increase:

$$(30,000 \text{ gallons/year} - 8,100 \text{ gallons/year}) = 21,900 \text{ gallons/year} = 21.9 \text{ thousand gallons per year}$$

Emission Increase:

$$(21.9 \text{ M gallons/year}) * (1.52 \text{ pounds POC/M gallon}) = 33.3 \text{ pounds/year} = 0.017 \text{ tons/year of POC}$$

C. STATEMENT OF COMPLIANCE

Regulation 2, Rule 1:

This application is for a change of permit conditions at the S-99 Gasoline Dispensing Facility. The Engineering Evaluation for this application uses fixed standards and objective measurements and does not involve any element of discretion. In accordance with District Permit Handbook Chapter 3.2 "Gasoline Dispensing Facilities", this application is considered ministerial. No further CEQA review is required.

The project is over 1000 feet from the nearest school and is therefore not subject to the public notification requirements of Regulation 2-1-412.

Regulation 2, Rule 2:

The S-99 Gasoline Dispensing Facility is subject to new source review (NSR) because this application will result in emission increases above current permitted levels.

BACT: Regulation 2-2-301 requires BACT for each source that emits more than 10 pounds per day of a pollutant. Since the Gasoline Dispensing Facility will emit a maximum of 3.8 gallons/day of POC, BACT is not required for S-99.

Offsets: Regulation 2-2-302 requires offsets for any POC or NO_x emission increases at facilities that will emit more than 15 tons/year of POC or NO_x. If the facility will emit more than 50 tons/year of POC or NO_x, the facility does not qualify for the small facility banking account and must provide all required offsets at a ratio of 1.15 to 1.0. From the District's emission inventory, this site is currently emitting 94.0 tons/year of nitrogen oxides and 103.3 tons/year of organic compounds. The organic compounds include 4.6 tons/year of NPOC emissions. Therefore, POC emissions are 98.7 tons/year.

Modify Gasoline Throughput Limit at the S-99 Non-Retail Gasoline Dispensing Facility

Since facility wide emissions of POC exceed 50 tons/year, Waste Management is required provide offsets at a 1.15 to 1.0 ratio. This application results in 0.017 tons/year of POC emission increases. The amount of POC offsets required is $(0.017 \times 1.15) = 0.020$ tons/year. Waste Management surrendered Banking Certificate # 905, which included 0.716 tons/year of POC emission reduction credits, to satisfy this offset requirement. Waste Management was issued Banking Certificate # 919 for the remaining 0.696 tons/year of POC emission reduction credits.

PSD and Major NSR: Since this facility does not include any of the 28 PSD source categories that are subject to a lower PSD threshold, the PSD threshold for this facility is 250 tons/year of criteria pollutants. Since this facility will not emit more than 250 tons/year of any pollutant, it is not subject to PSD. Furthermore, there are no applicable PSD requirements for POC emission increases.

Since this application does not result in more than 40 tons/year of POC emission increases, it is not considered to be a major modification of a major facility. Therefore, the major NSR requirements of Regulation 2-2-314 do not apply.

New Source Review for Toxic Air Contaminants:

This application will result in emission increases for several Toxic Air Contaminants (TACs). Benzene emissions from S-99 will be 0.23 pounds/year, which is less than the risk screening trigger level of 6.7 pounds/year. All other TAC emissions are far below the trigger levels. Therefore, a risk screening analysis was not required, and TBACT does not apply to S-99.

Regulation 2, Rule 6:

This facility is subject to the Operating Permit requirements of Title V of the federal Clean Air Act (40 CFR, Part 70) and BAAQMD Regulation 2, Rule 6, Major Facility Review (MFR), because it is a major facility for NO_x and CO emissions and also because it is a designated facility (since it is subject to the control requirements of the Emission Guidelines for MSW Landfills). Therefore, this facility is required to have an MFR permit pursuant to Regulations 2-6-301 and 2-6-304.

The initial MFR Permit for this facility was issued on December 1, 2003. The MFR Permit was revised on February 5, 2004. A significant revision and two additional minor revisions have been proposed. All comment periods are complete. The final issuance package for these revisions is currently circulating within the District and is expected to be signed in December 2004.

This application will modify permit conditions and will therefore require a revision of the current MFR permit. The definition of significant revision is discussed below to determine if this application constitutes a significant MFR revision.

- Regulation 2-6-226.1 and 226.2: This application does not involve the incorporation of a change considered to be a major modification, or a modification under NSPS, NESHAPs, or Section 112 of the CAA.
- Regulation 2-6-226.3: This application does not involve the relaxation of any monitoring, record keeping or reporting requirements.
- Regulation 2-6-226.4: This application involves changes to a gasoline throughput limit. However, this limit is reflective of actual operations and is not being imposed to avoid any standards or requirements.
- Regulation 2-6-226.5: This application does not involve the establishment of or change to a case-by-case emission limit or standard.
- Regulation 2-6-226.7: This application does not involve the incorporation of any requirements promulgated by the EPA.

The proposed permit condition revision makes no significant changes to the applicable requirements for S-99 and results in very minor annual emission increases. This application does not involve any federal

Modify Gasoline Throughput Limit at the S-99 Non-Retail Gasoline Dispensing Facility

requirements, avoidance of standards, relaxation of monitoring requirements, or case-by-case determinations. Therefore, this application is not considered significant pursuant to Regulation 2-6-226 and will be processed as a minor MFR permit revision.

The proposed MFR permit revisions related to this application are described later in this document.

Regulation 8, Rule 7:

Regulations 8-7-301 and 302 identify the requirements for Phase I and Phase II vapor control systems. The S-99 Gasoline Dispensing Facility is currently complying with all applicable Phase I and Phase II requirements. In addition, S-99 is complying with Regulation 8, Rule 7, Sections 303, 304, 306-309, 313, and 316. Sections 311, 314, and 315 do not apply.

Federal Requirements:

The S-99 Gasoline Dispensing Facility is not subject to any federal requirements.

D. MFR PERMIT MODIFICATIONS

Sections I-V:

No changes are proposed to these sections.

Section VI:

This MFR Permit revision will modify Condition # 20813, Part 1. The gasoline throughput limit in Part 1 was changed due to the applicant's request. All text changes are shown below in strikeout and underline format.

Condition # 20813

FOR: S-99 NON-RETAIL GASOLINE DISPENSING FACILITY G # 7123

1. This facility's annual gasoline throughput shall not exceed ~~8,400~~30,000 gallons in any consecutive 12-month period. (Basis: Offsets)
2. In order to demonstrate compliance with Part 1, the Permit Holder shall maintain monthly records of the gasoline throughput at S-99/G7123 in a District approved log. This log shall be retained for at least five years from date of entry. This log shall be kept on site and made readily available to the District staff upon request. (Basis: Offsets and Regulations 2-6-501 and 2-6-503)

Section VII:

The revised gasoline throughput limit is identified in Table VII-E below. The current monitoring procedures and monitoring frequency are adequate for demonstrating compliance with this new throughput limit. This condition change does not involve any new monitoring requirements or a change in the monitoring frequency.

Modify Gasoline Throughput Limit at the S-99 Non-Retail Gasoline Dispensing Facility

Table VII – E
Applicable Limits and Compliance Monitoring Requirements
S-99 NON-RETAIL GASOLINE DISPENSING FACILITY G # 7123

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
Gasoline Throughput	BAAQMD Condition # 20813, Part 1	Y		≤ 8,100 30,000 gallons per 12-month period	BAAQMD 8-5-501.1 and 8-7-503.1 and BAAQMD Condition # 20813, Part 2	P/A,M	Records
...							

Sections VIII-IX:

No changes are proposed to these sections.

Section X:

These above revisions are summarized in the revision history section as shown below.

X. Revision History

...

Minor Revision (Application # 2653): _____ **[insert approval date]**

- Revise gasoline throughput limit for S-99 in Condition # 20813, Part 1 and Table VII-E.

Sections XI-XII:

No changes are proposed to these sections.

E. RECOMMENDATION

The District approved a revision of Condition # 20813 for S-99 on July 9, 2004. The District recommends approval a minor revision of the MFR Permit for Site # A2066 to incorporate this July 9, 2004 revision of Condition # 20813.

By: signed by Carol S. Allen
Carol S. Allen
Senior Air Quality Engineer

November 29, 2004
Date