

Bay Area Air Quality Management District

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**Statement of Basis
for
MAJOR FACILITY REVIEW PERMIT
MINOR REVISION**

**Browning-Ferris Industries of CA, Inc.
Facility #A2266**

Facility Address:

12310 San Mateo Road
Half Moon Bay, CA 94019

Mailing Address:

12310 San Mateo Road
Half Moon Bay, CA 94019

Application Engineer: Carol Allen
Site Engineer: Carol Allen

Application: 12700

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STATEMENT OF BASIS

Browning-Ferris Industries of CA, Inc.; PLANT # 2266

APPLICATION # 12700

A. BACKGROUND

Site Description:

Browning-Ferris Industries of CA, Inc. (BFI) operates the Los Trancos Canyon Landfill Facility located on Ox Mountain in Half Moon Bay, CA. This facility includes an active landfill, three landfill gas flares, a non-retail gasoline dispensing facility (GDF), and stockpiles of green waste.

The Los Trancos Canyon Landfill (S-1) has two distinct fill areas. The upper canyon area has reached full capacity and has been inactive since 1995, while the lower canyon area is actively accepting waste (about 900,000 tons/year). The two fill areas combined contain 16 million tons of decomposable refuse (about 70% of maximum capacity). Each fill area is equipped with a landfill gas collection system, and the collected landfill gas is vented to the flares for abatement.

Current Project:

BFI submitted Application # 12497 to request an Authority to Construct for additional landfill gas collection wells. As waste filling progresses, the landfill gas collection systems needs to be expanded into the newly filled waste areas to ensure that sufficient landfill gas is collected to prevent surface leaks above the Regulation 8-34-303 limit. BFI is requesting to install a minimum of 35 and a maximum of 50 additional vertical gas collection wells. After installation of 35 wells, BFI will balance the well field and conduct surface and wellhead monitoring to determine if any additional wells will be necessary to ensure sufficient collection of landfill gas in the recently filled waste areas.

BFI is also requesting a permit condition revision to clarify Condition # 10164, Part 13, which limits the acceptance rate of VOC laden soil.

B. EMISSIONS

As discussed in the Engineering Evaluation for Application # 12497, the proposed additional gas collection system wells are expected to increase the current landfill gas flow rate to the flares. However, the flares have sufficient capacity to handle this increased volume of landfill gas with no modifications. Therefore, this request will not result in any emission increases.

The other proposed changes to Condition # 10164 simply clarify the applicability of the limits in Part 13, and will have no impact on emissions.

Landfill Gas Collection System Expansion

C. PROPOSED MFR PERMIT MODIFICATIONS

This facility is subject to the Operating Permit requirements of Title V of the federal Clean Air Act, Part 70 of Volume 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 NSPS for Municipal Solid Waste Landfills (40 CFR Part 60, Subpart WWW) requires 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. This facility is subject to this NSPS and meets the designated facility criteria listed in 40 CFR § 60.32c(c). Therefore, a Title V permit is required pursuant to Regulation 2-6-304.

In addition to being a designated facility, the maximum permitted CO emission rate for this site exceeds 100 tons/year of CO. Therefore, a Title V permit is required pursuant to Regulation 2-6-301 as well as Regulation 2-6-304.

The initial MFR Permit for this facility was issued on October 1, 2001 and was revised on March 7, 2002, August 12, 2003, January 5, 2004, and May 6, 2005. This application will require a revision of the current MFR permit to incorporate the proposed permit condition revisions. 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. This project does not result in any increases in maximum permitted emissions.
- Regulation 2-6-226.3: This application does not involve the relaxation of any monitoring, record keeping or reporting requirements. The existing wellhead monitoring requirements will apply to the new vertical wells.
- Regulation 2-6-226.4: This application does not involve limits imposed to avoid an applicable requirement. No new limits are proposed.
- Regulation 2-6-226.5 and 226.6: This application does not involve the establishment of or change to any case-by-case emission limits or standards or any facility-specific determinations. No changes of emission limits or standards are proposed.
- Regulation 2-6-226.7: This application does not involve the incorporation of any requirements promulgated by the EPA.

Since this application does not involve any of the above actions, it does not require a significant revision. This application will involve MFR permit revisions other than those allowed under the definition of administrative amendment in Regulation 2-6-201. Therefore, this revision will be handled as a minor revision of the MFR Permit.

The proposed MFR permit revisions related to this application are described below.

Landfill Gas Collection System Expansion

Sections I-V:

No changes are proposed to these sections. The numbers of installed and operational gas collection wells for S-1 are listed in Table II-A. This table will be updated in future MFR Permit revisions after BFI has installed the new wells and the District has received BFI's initial start-up notification for the new wells.

Section VI:

The District is proposing to modify Condition # 10164, Part 13, in order to clarify that Part 13 applies only to VOC laden soil while Part 14 applies only to contaminated soil.

The District is proposing to modify Condition # 10164, Part 17, to allow for the installation of new vertical gas collection wells and to delete obsolete text. Part 17b authorized the installation of 3 to 13 horizontal collectors. This Authority to Construct has expired and these horizontal collectors were never installed. The site plans to install vertical wells instead, as described in the new Part 17b.

Proposed permit condition revisions are shown below in strikeout and underline format.

Condition # 10164

For S-1 LOS TRANCOS CANYON LANDFILL; A-7 LANDFILL GAS FLARE; A-8 LANDFILL GAS FLARE; AND A-9 LANDFILL GAS FLARE:

(no changes to Parts 1-12)

13. The Permit Holder of the S-1 Active Landfill shall not handle soil containing volatile organic compounds (VOCs) or use soil containing VOCs as cover material, unless the following provisions are met.
 - a. The Permit Holder satisfies all requirements of ~~Regulation 8, Rule 40, Sections 116, 117, or 118 of Part 14 below;~~ or
(Basis: Regulation 8-40-301)
 - b. The Permit Holder can demonstrate that the soil is VOC-laden soil (soil containing VOCs that is not "contaminated" soil), or other materials for which the Permit Holder has appropriate documentation demonstrating that either the organic content of the soil or the organic concentration above the soil is below the contaminated level as defined in Regulation 8-40-205 (contains less than or equal to 50 ppmw of VOCs); and the Permit Holder places no more than 118.75 tons/day and no more than 31,800 tons/year of such VOC-laden soil in the landfill (disposal and cover use combined). These placement limits do not apply to the placement of soil that has no known contamination of VOCs or to contaminated soil.
(Basis: Cumulative Increase and Regulation 8-2-301)

(no changes to Parts 14-16)

Landfill Gas Collection System Expansion

17. The Permit Holder of S-1 shall have a properly operated and properly maintained landfill gas collection system in the Lower Los Trancos Canyon Fill Area. The Permit Holder shall apply for and receive an Authority to Construct from the District before implementing any changes to the Collection and Control System Design Plan. Increasing or decreasing the number of wells or collectors or significantly changing the locations, depths, or lengths of wells or collectors are all considered to be modifications that are subject to the Authority to Construct requirement.

a. This gas collection system shall consist of 47 horizontal collectors (monitored at 4 headers) and 15 vertical wells. The authorized number of landfill gas collection system components is the baseline count listed above plus any components added pursuant to subpart b below as evidenced by start-up notification letters submitted to the District.

~~b. The Permit Holder has been issued an Authority to Construct for the additional landfill gas collection system components listed below. The minimum number of wells shall be installed by no later than October 26, 2005. Specific well locations, depths, and lengths of associated piping are as described in detail in Permit Application # 3221. Wells installed pursuant to Part 17b shall be added to Part 17a in accordance with the procedures identified in Regulations 2-6-414 or 2-6-415.~~

| Minimum Collectors | Maximum Collectors |
|-------------------------------|-------------------------------|
| 3 horizontal | 13 horizontal |

b. The Permit Holder has been issued an Authority to Construct for the additional landfill gas collection system components listed in subsection b below. Specific well locations, depths, and lengths of associated piping are as described in detail in Permit Application # 12497. Wells installed pursuant to Part 17b shall be added to Part 17a in accordance with the procedures identified in Regulations 2-6-414 or 2-6-415.

- Install a minimum of 35 up to a maximum of 50 vertical gas collection wells.

(Basis: Regulations 2-1-301, 8-34-301.1, 8-34-305, and NSPS: 40 CFR 60.752(b)(2)(ii), 60.755(a) and 60.759)

(no changes to Parts 18-33)

Sections VII-IX:

No changes are proposed to these sections.

Landfill Gas Collection System Expansion

Section X:

The proposed MFR permit revisions will be summarized in the revision history section, as shown below.

Minor Revision (Application # 12700): **[insert approval date]**

- Revise Condition # 10164, Part 13 to clarify the applicability of this part.
- Revise Condition # 10164, Part 17 to allow for an expansion of the landfill gas collection system and to delete obsolete text.

Sections XI-XII:

No changes are proposed to these sections.

D. SUMMARY OF PROPOSED ACTIONS

The District is proposing a minor revision of the MFR Permit for Site # A2266 that will:

- Revise Condition # 10164, Part 13 to clarify the applicability of this part.
- Revise Condition # 10164, Part 17 to allow for an expansion of the landfill gas collection system.
- Update the Section X Revision History.

APPENDIX A

ENGINEERING EVALUATION

APPLICATION # 12497

ENGINEERING EVALUATION

Browning Ferris Industries of CA, Inc.; Site # A2266

APPLICATION # 12497

A. BACKGROUND

Site Description:

Browning-Ferris Industries of CA, Inc. (BFI) operates the Los Trancos Canyon Landfill Facility located on Ox Mountain in Half Moon Bay, CA. This facility includes an active landfill, three landfill gas flares, a non-retail gasoline dispensing facility (GDF), and stockpiles of green waste.

The Los Trancos Canyon Landfill (S-1) has two distinct fill areas. The upper canyon area has reached full capacity and has been inactive since 1995, while the lower canyon area is actively accepting waste (about 900,000 tons/year). The two fill areas combined contain 16 million tons of decomposable refuse (about 70% of maximum capacity). Each fill area is equipped with a landfill gas collection system, and the collected landfill gas is vented to the flares for abatement.

Current Project:

BFI submitted Application # 12497 to request an Authority to Construct for additional landfill gas collection wells. As waste filling progresses, the landfill gas collection systems needs to be expanded into the newly filled waste areas to ensure that sufficient landfill gas is collected to prevent surface leaks above the Regulation 8-34-303 limit. BFI is requesting to install a minimum of 35 and a maximum of 50 additional vertical gas collection wells. After installation of 35 wells, BFI will balance the well field and conduct surface and wellhead monitoring to determine if any additional wells will be necessary to ensure sufficient collection of landfill gas in the recently filled waste areas.

BFI is also requesting a permit condition revision to clarify Condition # 10164, Part 13, which limits the acceptance rate of VOC laden soil.

B. EMISSIONS

As discussed above, BFI currently vents all of the collected landfill gas to three enclosed flares (A-7, A-8, and A-9). These flares are currently collecting about 2200 cfm of landfill gas. The maximum capacity of the three flares combined is 8200 cfm of landfill gas. The new collection system equipment is expected to increase the current landfill gas flow rate by no more than 1250 scfm. The flares have sufficient capacity to handle this increased volume of landfill gas with no modifications. Therefore, this application will not result in any emission increases.

The proposed changes to Condition # 10164 simply clarify the applicability of the limits in Part 13 and will have no impact on emissions.

Landfill Gas Collection System Expansion

C. STATEMENT OF COMPLIANCE

Regulation 2, Rule 1:

This application is for a change of permit conditions at the S-1 Los Trancos Canyon Landfill that will identify upgrades to the landfill gas collection system, which is part of the overall abatement system for the landfill. This condition change will not result in any emission increases at the 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 8.1 "Landfills", this application is considered ministerial. In addition, this change of permit conditions is categorically exempt from CEQA review pursuant to Regulation 2-1-312.1 and 2-1-312.2. Therefore, 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:

Since this project will not result in any increases of maximum permitted emissions from S-1, this project is not subject to New Source Review or the requirements of Regulation 2, Rule 2.

New Source Review for Toxic Air Contaminants:

Since this project will not result in any increases of maximum permitted emissions from S-1, this project is not subject to New Source Review for Toxic Air Contaminants.

Regulation 2, Rule 6:

This facility is subject to BAAQMD Regulation 2, Rule 6, Major Facility Review because it is a designated facility as defined by BAAQMD Regulation 2-6-204. Therefore, an MFR Permit is required pursuant to Regulation 2-6-304. In addition to being a designated facility, the maximum permitted CO emission rate for this site exceeds 100 tons/year of CO. Therefore, an MFR Permit is required pursuant to Regulation 2-6-301 as well.

The initial MFR Permit for this facility was issued on October 1, 2001 and was revised on March 7, 2002, August 12, 2003, January 5, 2004, and May 6, 2005. This application will require a revision of the current MFR permit to incorporate the proposed permit condition revisions. The proposed MFR permit revisions related to this application are discussed in the Statement of Basis for Application # 12700.

Regulation 8, Rule 34:

The proposed landfill gas collection system expansion is necessary to ensure compliance with the surface leak limit in Regulation 8-34-303 in newly filled waste areas. The proposed installation of 35 vertical wells is expected to provide sufficient gas collection in the surrounding areas. Since all landfill gas will be continuously collected and vented to approved control devices, the S-1 Los Trancos Canyon Landfill will comply with Regulation 8-34-301 and 301.1. The existing flares have sufficient capacity to handle the expected increase in landfill gas flow rate due to the

Landfill Gas Collection System Expansion

new vertical wells. Since this increased flow rate will not exceed the current capacity of the flares, this increased landfill gas flow rate will not impact the flares' ability to comply with the NMOC emission limits in Regulation 8-34-301.3. The proposed vertical wells are expected to comply with the wellhead limits in Regulation 8-34-305. BFI will monitor the new wells in accordance with Regulation 8-34-505. Any wellhead excesses that are discovered will be repaired in accordance with Regulation 8-34-414. This permit application constitutes a submittal of an amended Collection and Control System Design Plan for this facility, which is required pursuant to Regulation 8-34-408.

Federal Requirements:

NSPS for MSW Landfills: In the BAAQMD, compliance with Regulation 8, Rule 34 will ensure compliance with all applicable requirements of 40 CFR, Part 60, Subpart WWW. Specific applicable NSPS requirements are listed in the existing MFR Permit. The proposed installation of 35-50 vertical landfill gas collection wells is expected to ensure compliance with the NSPS surface leak limit. BFI is expected to comply with all applicable NSPS monitoring requirements for these new wells.

NESHAPs for MSW Landfills: Any landfills that are subject to the landfill gas collection and control requirements of either the NSPS for MSW Landfills or the EG for MSW Landfills are also subject to the NESHAPs for MSW Landfills (40 CFR, Part 63, Subpart AAAA). This NESHAP requires that subject facilities prepare and implement startup, shutdown, malfunction plans (SSM Plans) and additional reporting requirements. The facility's SSM Plan will need to be updated to include the new gas collection system configuration. The revised SSM Plan should be on-site prior to initial operation of the new vertical wells. All applicable requirements are contained in the existing MFR permit, and this facility is expected to continue to comply with these requirements.

D. PERMIT CONDITION MODIFICATIONS

The District is proposing to modify Condition # 10164, as indicated in strikeout and underline format below, in order to clarify the applicability of Part 13 and to allow an expansion of the gas collection system described in Part 17.

Condition # 10164

For S-1 LOS TRANCOS CANYON LANDFILL; A-7 LANDFILL GAS FLARE; A-8 LANDFILL GAS FLARE; AND A-9 LANDFILL GAS FLARE:

(no changes to Parts 1-12)

13. The Permit Holder of the S-1 Active Landfill shall not handle soil containing volatile organic compounds (VOCs) or use soil containing VOCs as cover material, unless the following provisions are met.
 - a. The Permit Holder satisfies all requirements of ~~Regulation 8, Rule 40, Sections 116, 117, or 118 of Part 14 below;~~ or (Basis: Regulation 8-40-301)

Landfill Gas Collection System Expansion

- b. The Permit Holder can demonstrate that the soil is VOC-laden soil (soil containing VOCs that is not “contaminated” soil), or other materials for which the Permit Holder has appropriate documentation demonstrating that either the organic content of the soil or the organic concentration above the soil is below the contaminated level as defined in Regulation 8-40-205 (contains less than or equal to 50 ppmw of VOCs); and the Permit Holder places no more than 118.75 tons/day and no more than 31,800 tons/year of such VOC-laden soil in the landfill (disposal and cover use combined). These placement limits do not apply to the placement of soil that has no known contamination of VOCs or to contaminated soil.
(Basis: Cumulative Increase and Regulation 8-2-301)

(no changes to Parts 14-16)

17. The Permit Holder of S-1 shall have a properly operated and properly maintained landfill gas collection system in the Lower Los Trancos Canyon Fill Area. The Permit Holder shall apply for and receive an Authority to Construct from the District before implementing any changes to the Collection and Control System Design Plan. Increasing or decreasing the number of wells or collectors or significantly changing the locations, depths, or lengths of wells or collectors are all considered to be modifications that are subject to the Authority to Construct requirement.
- a. This gas collection system shall consist of 47 horizontal collectors (monitored at 4 headers) and 15 vertical wells. The authorized number of landfill gas collection system components is the baseline count listed above plus any components added pursuant to subparts b or c below as evidenced by start-up notification letters submitted to the District.
- b. The Permit Holder has been issued an Authority to Construct for the additional landfill gas collection system components listed below. The minimum number of wells shall be installed by no later than October 26, 2005. Specific well locations, depths, and lengths of associated piping are as described in detail in Permit Application # 3221. Wells installed pursuant to Part 17b shall be added to Part 17a in accordance with the procedures identified in Regulations 2-6-414 or 2-6-415.
- | | |
|--------------------|--------------------|
| Minimum Collectors | Maximum Collectors |
| 3 horizontal | 13 horizontal |
- c. The Permit Holder has been issued an Authority to Construct for the additional landfill gas collection system components

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listed in subsection c below. Specific well locations, depths, and lengths of associated piping are as described in detail in Permit Application # 12497. Wells installed pursuant to Part 17c shall be added to Part 17a in accordance with the procedures identified in Regulations 2-6-414 or 2-6-415.

- Install a minimum of 35 up to a maximum of 50 vertical gas collection wells.

(Basis: Regulations 2-1-301, 8-34-301.1, 8-34-305, and NSPS: 40 CFR 60.752(b)(2)(ii), 60.755(a) and 60.759)

(no changes to Parts 18-33)

E. RECOMMENDATION

Issue an Authority to Construct and a Change of Conditions for the following equipment:

- S-1 Los Trancos Canyon Landfill; abated by Flares (A-7, A-8, and A-9):
modification of the lower canyon gas collection system to install 35 to 50 vertical wells.**

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

June 16, 2005
Date