



AUG 3 0 2011

Kevin Basso Forward Inc. Landfill 9999 S Austin Road Manteca, CA

Notice of Final Action - Title V Permit Renewal Re:

District Facility # N-339 Project # N-1060201

Dear Mr. Basso:

The District has issued the Final Title V Permit for Forward Inc. Landfill. The preliminary decision for this project was made on August 6, 2009. No comments were received subsequent to the District preliminary decision. Enclosed are the Renewed Final Title V Permit and public notice to be published approximately three days from the date of this letter.

Thank you for your cooperation in this matter. Should you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,

David Warner

Director of Permit Services

Attachments

Juscelino Siongco, Permit Services Engineer CC:

> Seved Sadredin **Executive Director/Air Pollution Control Officer**





AUG 3 0 2011

Gerardo C. Rios, Chief Permits Office (AIR-3) U.S. EPA - Region IX 75 Hawthorne St San Francisco, CA 94105

Notice of Final Action - Title V Permit Renewal

District Facility # N-339 Project # N-1060201

Dear Mr. Rios:

The District has issued the Final Title V Permit Renewal for Forward Inc. Landfill. The preliminary decision for this project was made on August 6, 2009. No comments were received subsequent to the District preliminary decision. Enclosed are the Renewed Final Title V Permit and public notice to be published approximately three days from the date of this letter.

I would like to thank you and your staff for working with us. We appreciate your concurrence with this action. Should you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely

Director of Permit Services

Attachments

Juscelino Siongco, Permit Services Engineer CC:

Seyed Sadredin

Executive Director/Air Pollution Control Officer





AUG 3 0 2011

Mike Tollstrup, Chief **Project Assessment Branch** Air Resources Board P O Box 2815 Sacramento, CA 95812-2815

Notice of Final Action - Title V Permit Renewal Re:

> District Facility # N-339 Project # N-1060201

Dear Mr. Tollstrup:

The District has issued the Final Title V Permit for Forward Inc. Landfill. The preliminary decision for this project was made on August 6, 2009. No comments were received subsequent to the District preliminary decision. Enclosed are the Renewed Final Title V Permit and public notice to be published approximately three days from the date of this letter.

I would like to thank you and your staff for working with us. Should you have any questions, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900.

Sincerely,

David Warner

Director of Permit Services

Attachments

Juscelino Siongco, Permit Services Engineer CC:

> Seved Sadredin Executive Director/Air Pollution Control Officer

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT NOTICE OF FINAL DECISION TO ISSUE RENEWED FEDERALLY MANDATED OPERATING PERMIT

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District has made its final decision to issue the renewed Federally Mandated Operating Permit to Forward Inc. Landfill for its landfill, 9999 S Austin Road, Manteca,, California.

The District's analysis of the legal and factual basis for this proposed action, project #N-1060201, is available for public inspection at http://www.valleyair.org/notices/public_notices_idx.htm and the District office at the address below. For additional information regarding this matter, please contact Mr. Jim Swaney, Permit Services Manager, at (559) 230-5900, or contact David Warner, Director of Permit Services, in writing at SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 1990 E. GETTYSBURG AVE, FRESNO, CA 93726-0244.





Permit to Operate

FACILITY: N-339 EXPIRATION DATE: 07/31/2016

LEGAL OWNER OR OPERATOR: FORWARD, INC. LANDFILL

MAILING ADDRESS: 9999 S AUSTIN RD

MANTECA, CA 95336

FACILITY LOCATION: 9999 S. AUSTIN ROAD MANTECA, CA 95336

FACILITY DESCRIPTION: LANDFILL

The Facility's Permit to Operate may include Facility-wide Requirements as well as requirements that apply to specific permit units.

This Permit to Operate remains valid through the permit expiration date listed above, subject to payment of annual permit fees and compliance with permit conditions and all applicable local, state, and federal regulations. This permit is valid only at the location specified above, and becomes void upon any transfer of ownership or location. Any modification of the equipment or operation, as defined in District Rule 2201, will require prior District approval. This permit shall be posted as prescribed in District Rule 2010.

Seyed Sadredin

David Warner
Director of Permit Services

FACILITY: N-339-0-2 **EXPIRATION DATE: 07/31/2016**

FACILITY-WIDE REQUIREMENTS

- 1. The owner or operator shall notify the District of any breakdown condition as soon as reasonably possible, but no later than one hour after its detection, unless the owner or operator demonstrates to the District's satisfaction that the longer reporting period was necessary. [District Rule 1100, 6.1 and San Joaquin County Rule 110] Federally Enforceable Through Title V Permit
- The District shall be notified in writing within ten days following the correction of any breakdown condition. The breakdown notification shall include a description of the equipment malfunction or failure, the date and cause of the initial failure, the estimated emissions in excess of those allowed, and the methods utilized to restore normal operations. [District Rule 1100, 7.0 and San Joaquin County Rule 110] Federally Enforceable Through Title V Permit
- The owner or operator of any stationary source operation that emits more than 25 tons per year of nitrogen oxides or reactive organic compounds, shall provide the District annually with a written statement in such form and at such time as the District prescribes, showing actual emissions of nitrogen oxides and reactive organic compounds from that source. [District Rule 1160, 5.0] Federally Enforceable Through Title V Permit
- Any person building, altering or replacing any operation, article, machine, equipment, or other contrivance, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce, or control the issuance of air contaminants, shall first obtain an Authority to Construct (ATC) from the District unless exempted by District Rule 2020 (12/20/07). [District Rule 2010, 3.0 and 4.0; and 2020] Federally Enforceable Through Title V Permit
- The permittee must comply with all conditions of the permit including permit revisions originated by the District. All terms and conditions of a permit that are required pursuant to the Clean Air Act (CAA), including provisions to limit potential to emit, are enforceable by the EPA and Citizens under the CAA. Any permit noncompliance constitutes a violation of the CAA and the District Rules and Regulations, and is grounds for enforcement action, for permit termination, revocation, reopening and reissuance, or modification; or for denial of a permit renewal application. [District Rules 2070, 7.0; 2080; and 2520, 9.9.1 and 9.13.1] Federally Enforceable Through Title V Permit
- A Permit to Operate or an Authority to Construct shall not be transferred unless a new application is filed with and approved by the District. [District Rule 2031] Federally Enforceable Through Title V Permit
- Every application for a permit required under Rule 2010 (12/17/92) shall be filed in a manner and form prescribed by the District. [District Rule 2040] Federally Enforceable Through Title V Permit
- The operator shall maintain records of required monitoring that include: 1) the date, place, and time of sampling or measurement; 2) the date(s) analyses were performed; 3) the company or entity that performed the analysis; 4) the analytical techniques or methods used; 5) the results of such analysis; and 6) the operating conditions at the time of sampling or measurement. [District Rule 2520, 9.4.1] Federally Enforceable Through Title V Permit
- The operator shall retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, or report. Support information includes copies of all reports required by the permit and, for continuous monitoring instrumentation, all calibration and maintenance records and all original strip-chart recordings. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE

These terms and conditions are part of the Facility-wide Permit to Operate. Any amendments to these Facility-wide Requirements that affect specific Permit Units may constitute modification of those Permit Units.

- 10. The operator shall submit reports of any required monitoring at least every six months unless a different frequency is required by an applicable requirement. All instances of deviations from permit requirements must be clearly identified in such reports. [District Rule 2520, 9.5.1] Federally Enforceable Through Title V Permit
- 11. Deviations from permit conditions must be promptly reported, including deviations attributable to upset conditions, as defined in the permit. For the purpose of this condition, promptly means as soon as reasonably possible, but no later than 10 days after detection. The report shall include the probable cause of such deviations, and any corrective actions or preventive measures taken. All required reports must be certified by a responsible official consistent with section 10.0 of District Rule 2520 (6/21/01). [District Rules 2520, 9.5.2 and 1100, 7.0] Federally Enforceable Through Title V **Permit**
- 12. If for any reason a permit requirement or condition is being challenged for its constitutionality or validity by a court of competent jurisdiction, the outcome of such challenge shall not affect or invalidate the remainder of the conditions or requirements in that permit. [District Rule 2520, 9.7] Federally Enforceable Through Title V Permit
- 13. 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 the permit. [District Rule 2520, 9.8.2] Federally Enforceable Through Title V Permit
- 14. The permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 2520, 9.8.3] Federally Enforceable Through Title V Permit
- 15. The permit does not convey any property rights of any sort, or any exclusive privilege. [District Rule 2520, 9.8.4] Federally Enforceable Through Title V Permit
- 16. The Permittee shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the District copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee may furnish such records directly to EPA along with a claim of confidentiality. [District Rule 2520, 9.8.5] Federally Enforceable Through Title V Permit
- 17. The permittee shall pay annual permit fees and other applicable fees as prescribed in Regulation III of the District Rules and Regulations. [District Rule 2520, 9.9] Federally Enforceable Through Title V Permit
- 18. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to enter the permittee's premises where a permitted source is located or emissions related activity is conducted, or where records must be kept under condition of the permit. [District Rule 2520, 9.13.2.1] Federally Enforceable Through Title V Permit
- 19. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit. [District Rule 2520, 9.13.2.2] Federally Enforceable Through Title V Permit
- 20. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under the permit. [District Rule 2520, 9.13.2.3] Federally Enforceable Through Title V Permit
- 21. Upon presentation of appropriate credentials, a permittee shall allow an authorized representative of the District to sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or applicable requirements. [District Rule 2520, 9.13.2.4] Federally Enforceable Through Title V Permit
- 22. No air contaminants shall be discharged into the atmosphere for a period or periods aggregating more than 3 minutes in any one hour which is as dark or darker than Ringelmann #1 or equivalent to 20% opacity and greater, unless specifically exempted by District Rule 4101 (02/17/05). If the equipment or operation is subject to a more stringent visible emission standard as prescribed in a permit condition, the more stringent visible emission limit shall supersede this condition. [District Rule 4101, and County Rules 401 (in all eight counties in the San Joaquin Valley)] Federally Enforceable Through Title V Permit

FACILITY-WIDE REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: FORWARD, INC. LANDFILL Location: 9999 S. AUSTIN ROAD, MANTECA, CA 95336 N-339-0-2: Aug 25 2011 3:32PM - KEASTMD

- 23. No person shall manufacture, blend, repackage, supply, sell, solicit or apply any architectural coating with a VOC content in excess of the corresponding limit specified in Table of Standards 1 effective until 12/30/10 or Table of Standards 2 effective on and after 1/1/11 of District Rule 4601 (12/17/09) for use or sale within the District. [District Rule 4601, 5.1] Federally Enforceable Through Title V Permit
- 24. All VOC-containing materials subject to Rule 4601 (12/17/09) shall be stored in closed containers when not in use. [District Rule 4601, 5.4] Federally Enforceable Through Title V Permit
- 25. The permittee shall comply with all the Labeling and Test Methods requirements outlined in Rule 4601 sections 6.1 and 6.3 (12/17/09). [District Rule 4601, 6.1 and 6.3] Federally Enforceable Through Title V Permit
- 26. With each report or document submitted under a permit requirement or a request for information by the District or EPA, the permittee shall include a certification of truth, accuracy, and completeness by a responsible official. [District Rule 2520, 9.13.1 and 10.0] Federally Enforceable Through Title V Permit
- 27. If the permittee performs maintenance on, or services, repairs, or disposes of appliances, the permittee shall comply with the standards for Recycling and Emissions Reduction pursuant to 40 CFR Part 82, Subpart F. [40 CFR 82 Subpart F] Federally Enforceable Through Title V Permit
- 28. If the permittee performs service on motor vehicles when this service involves the ozone-depleting refrigerant in the motor vehicle air conditioner (MVAC), the permittee shall comply with the standards for Servicing of Motor Vehicle Air Conditioners pursuant to all the applicable requirements as specified in 40 CFR Part 82, Subpart B. [40 CFR Part 82, Subpart B] Federally Enforceable Through Title V Permit
- 29. Disturbances of soil related to any construction, demolition, excavation, extraction, or other earthmoving activities shall comply with the requirements for fugitive dust control in District Rule 8021 unless specifically exempted under Section 4.0 of Rule 8021 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8021 and 8011] Federally Enforceable Through Title V Permit
- Outdoor handling, storage and transport of any bulk material which emits dust shall comply with the requirements of District Rule 8031, unless specifically exempted under Section 4.0 of Rule 8031 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8031 and 8011] Federally Enforceable Through Title V Permit
- 31. An owner/operator shall prevent or cleanup any carryout or trackout in accordance with the requirements of District Rule 8041 Section 5.0, unless specifically exempted under Section 4.0 of Rule 8041 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8041 and 8011] Federally Enforceable Through Title V Permit
- 32. Whenever open areas are disturbed, or vehicles are used in open areas, the facility shall comply with the requirements of Section 5.0 of District Rule 8051, unless specifically exempted under Section 4.0 of Rule 8051 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8051 and 8011] Federally Enforceable Through Title V Permit
- 33. Any paved road or unpaved road shall comply with the requirements of District Rule 8061 unless specifically exempted under Section 4.0 of Rule 8061 (8/19/2004) or Rule 8011 (8/19/2004). [District Rule 8061 and Rule 8011] Federally Enforceable Through Title V Permit
- 34. Any unpaved vehicle/equipment area that anticipates more than 50 Average annual daily Trips (AADT) shall comply with the requirements of Section 5.1.1 of District Rule 8071. Any unpaved vehicle/equipment area that anticipates more than 150 vehicle trips per day (VDT) shall comply with the requirements of Section 5.1.2 of District Rule 8071. On each day that 25 or more VDT with 3 or more axles will occur on an unpaved vehicle/equipment traffic area, the owner/operator shall comply with the requirements of Section 5.1.3 of District Rule 8071. On each day when a special event will result in 1,000 or more vehicles that will travel/park on an unpaved area, the owner/operator shall comply with the requirements of Section 5.1.4 of District Rule 8071. All sources shall comply with the requirements of Section 5.0 of District Rule 8071 unless specifically exempted under Section 4.0 of Rule 8071 (9/16/2004) or Rule 8011 (8/19/2004). [District Rule 8071 and Rule 8011] Federally Enforceable Through Title V Permit
- 35. Any owner or operator of a demolition or renovation activity, as defined in 40 CFR 61.141, shall comply with the applicable inspection, notification, removal, and disposal procedures for asbestos containing materials as specified in 40 CFR 61.145 (Standard for Demolition and Renovation). [40 CFR 61 Subpart M] Federally Enforceable Through Title V Permit

Location: 9999 S. AUSTIN ROAD, MANTECA, CA 95336 N-339-0-2: Aug 25 2011 3:32PM - KEASTMD

- 36. The permittee shall submit certifications of compliance with the terms and standards contained in Title V permits, including emission limits, standards and work practices, to the District and the EPA annually (or more frequently as specified in an applicable requirement or as specified by the District). The certification shall include the identification of each permit term or condition, the compliance status, whether compliance was continuous or intermittent, the methods used for determining the compliance status, and any other facts required by the District to determine the compliance status of the source. [District Rule 2520, 9.16] Federally Enforceable Through Title V Permit
- 37. The permittee shall submit an application for Title V permit renewal to the District at least six months, but not greater than 18 months, prior to the permit expiration date. [District Rule 2520, 5.2] Federally Enforceable Through Title V Permit
- 38. When a term is not defined in a Title V permit condition, the definition in the rule cited as the origin and authority for the condition in a Title V permits shall apply. [District Rule 2520, 9.1.1] Federally Enforceable Through Title V Permit
- 39. Compliance with permit conditions in the Title V permit shall be deemed in compliance with San Joaquin County Rule 110. A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 40. Compliance with permit conditions in the Title V permit shall be deemed in compliance with the following applicable requirements: SJVUAPCD Rules 1100, sections 6.1 and 7.0 (12/17/92); 2010, sections 3.0 and 4.0 (12/17/92); 2031 (12/17/92); 2040 (12/17/92); 2070, section 7.0 (12/17/92); 2080 (12/17/92); 4101 (2/17/05); 4601 (12/17/09); 8021 (8/19/2004); 8031 (8/19/2004); 8041 (8/19/2004); 8051 (8/19/2004); 8061 (8/19/2004); and 8071 (9/16/2004). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 41. The reporting periods for the Report of Required Monitoring and the Compliance Certification Report begin June 1 of every year, unless alternative dates are approved by the District Compliance Division. These reports are due within 30 days after the end of the reporting period. [District Rule 2520] Federally Enforceable Through Title V Permit
- 42. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

Location: 9999 S. AUSTIN ROAD, MANTECA, CA 95336

PERMIT UNIT: N-339-1-2

EXPIRATION DATE: 07/31/2016

EQUIPMENT DESCRIPTION: WOOD WASTE RECEIVING.

PERMIT UNIT REQUIREMENTS

See Facility-wide requirements for conditions applicable to this permit unit. [District Rule 2080] Federally Enforceable Through Title V Permit

These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: FORWARD, INC. LANDFILL Location: 9999 S. AUSTIN ROAD, MANTECA, CA 95336 N-339-1-2: Aug 25 2011 3 32PM - KEASTMD

PERMIT UNIT: N-339-9-2 EXPIRATION DATE: 07/31/2016

EQUIPMENT DESCRIPTION:

GASOLINE DISPENSING OPERATION WITH ONE 500 GALLON ABOVE GROUND GASOLINE STORAGE TANK SERVED BY TWO-POINT PHASE I VAPOR RECOVERY SYSTEM (G-70-102-A), AND 1 FUELING POINT WITH 1 PHASE II EXEMPT GASOLINE DISPENSING NOZZLE

PERMIT UNIT REQUIREMENTS

- The Phase I vapor recovery system shall be installed and maintained in accordance with the manufacturer 1. specifications and the ARB Executive Order. [District Rule 4621] Federally Enforceable Through Title V Permit
- The storage container(s) shall be installed, maintained, and operated such that they are leak-free. [District Rule 4621] 2. Federally Enforceable Through Title V Permit
- The Phase I vapor recovery systems and gasoline dispensing equipment shall be maintained without leaks as 3. determined in accordance with the test method specified in this permit. [District Rule 4621] Federally Enforceable Through Title V Permit
- A leak is defined as the dripping of VOC-containing liquid at a rate of more than three (3) drops per minute, or the detection of any gaseous or vapor emissions with a concentration or total organic compound greater than 10,000 ppmy, as methane, above background when measured in accordance with EPA Test Method 21. [District Rule 4621] Federally Enforceable Through Title V Permit
- No gasoline delivery vessel shall be operated or be allowed to operate unless valid State of California decals are displayed on the cargo container, which attest to the vapor integrity of the container. [District Rule 4621] Federally Enforceable Through Title V Permit
- Total gasoline throughput for the facility shall not exceed either of the following: 10,000 gallons in any consecutive 30-day period or 24,000 gallons per calendar year. If throughput exceeds stated limits, the permittee shall notify the District within 30 days and a certified Phase II vapor recovery system shall be installed. [District Rule 4622] Federally Enforceable Through Title V Permit
- The permittee shall conduct and document periodic maintenance inspections based on the greatest monthly throughput of gasoline dispensed by the facility in the previous year as follows: A) less than 2,500 gallons - one day per month; B) 2,500 to less than 25,000 gallons - one day per week; or C) 25,000 gallons or greater - five days per week. [District Rule 46211 Federally Enforceable Through Title V Permit
- Periodic maintenance inspections of the Phase I vapor recovery system shall include, at a minimum, verification that 1) the fill caps and vapor caps are not missing, damaged, or loose; 2) the fill cap gasket and vapor cap gaskets are not missing or damaged; 3) the fill adapter and vapor adapter are securely attached to the risers; 4) where applicable, the spring-loaded submerged fill tube seals properly against the coaxial tubing; 5) the dry break (poppet-valve) is not missing or damaged; and 6) the submerged fill tube is not missing or damaged. [District Rule 4621] Federally Enforceable Through Title V Permit
- The permittee shall conduct all periodic vapor recovery system performance tests specified in this permit, no more than 30 days before or after the required compliance testing date, unless otherwise required under the applicable ARB Executive Order. [District Rule 4621] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: FORWARD, INC. LANDFILL Location: 9999 S. AUSTIN ROAD, MANTECA, CA 95336 N-339-9-2: Aug 25 2011 3 32PM - KEASTMD

- 10. The storage tank shall be equipped with an ARB certified pressure vacuum relief valve set at 3.0ñ0.5 inches water column pressure relief and 8.0ñ2.0 inches water column vacuum relief. [District Rule 4621] Federally Enforceable Through Title V Permit
- 11. The permittee shall perform and pass a Static Leak Test for Aboveground Tanks using ARB TP-201.3B or TP-206.3 at least once every 36 months. [District Rule 4621] Federally Enforceable Through Title V Permit
- 12. A person conducting testing of, or repairs to, a certified vapor recovery system shall be in compliance with District Rule 1177 (Gasoline Dispensing Facility Tester Certification). [District Rule 4621] Federally Enforceable Through Title V Permit
- 13. A person performing maintenance on a certified Phase I vapor recovery system shall be certified by the ICC (International Code Council) for Vapor Recovery System Installation and Repair, or work under the direct and personal supervision of an individual physically present at the work site who is certified. Proof of the ICC certification and all other certifications required by the Executive Order and installation and operation manual shall be made available onsite. [District Rule 4621] Federally Enforceable Through Title V Permit
- 14. The permittee shall notify the District at least 7 days prior to each performance test. The test results shall be submitted to the District no later than 30 days after the completion of each test. [District Rule 4621] Federally Enforceable Through Title V Permit
- 15. The permittee shall maintain monthly and annual gasoline throughput records. [District Rule 4621] Federally Enforceable Through Title V Permit
- 16. All records required by this permit shall be retained on-site for a period of at least five years and shall be made available for District inspection upon request. [District Rule 4621] Federally Enforceable Through Title V Permit

PERMIT UNIT: N-339-15-2

EXPIRATION DATE: 07/31/2016

EQUIPMENT DESCRIPTION: SLUDGE DRYING OPERATION

PERMIT UNIT REQUIREMENTS

See Facility-wide requirements for conditions applicable to this permit unit. [District Rule 2080] Federally Enforceable Through Title V Permit

Facility Name: FORWARD, INC. LANDFILL

LOCATION: 999 S. AUSTIN ROAD,MANTECA, CA 95336 N-339-15-2: Aug 25 2011 3:32PM – KEASTMD

PERMIT UNIT: N-339-16-2

EXPIRATION DATE: 07/31/2016

EQUIPMENT DESCRIPTION: BIOREMEDIATION OPERATION

PERMIT UNIT REQUIREMENTS

See Facility-wide requirements for conditions applicable to this permit unit. [District Rule 2080] Federally Enforceable Through Title V Permit

Facility Name: FORWARD, INC. LANDFILL

Location: 9999 S. AUSTIN ROAD,MANTECA, CA 95336 N-339-16-2: Aug 25 2011 3:32PM - KEASTMD

PERMIT UNIT: N-339-17-8 **EXPIRATION DATE: 07/31/2016**

EQUIPMENT DESCRIPTION:

13.8 MILLION CUBIC YARD CAPACITY (218 ACRES) LANDFILL WITH LANDFILL GAS COLLECTION SYSTEM CONTROLLED BY A 2000 SCFM (EQUIVALENT TO 48.0 MMBTU/HR) ENCLOSED FLARE AND CARBON ADSORPTION SYSTEM (CAS), AND A 3400 SCFM (EQUIVALENT TO 102 MMBTU/HR) PERRENIAL ENERGY MODEL GHS-301 LFG-FIRED ENCLOSED FLARE WITH LPG PILOT

PERMIT UNIT REQUIREMENTS

- All equipment shall be constructed, maintained and operated according to the specifications and plans contained in the permit application except as otherwise specified herein. [District NSR Rule] Federally Enforceable Through Title V
- All landfill gas collected shall be controlled by the flare. [District NSR Rule] Federally Enforceable Through Title V **Permit**
- VOC (NMOC) emissions from the landfill shall not exceed 302.0 lb per day (50 Mg/year). [District NSR Rule] 3. Federally Enforceable Through Title V Permit
- The VOC destruction efficiency for the flare shall be at least 98% by weight. [District NSR Rule] Federally Enforceable Through Title V Permit
- The flare shall maintain a temperature of at least 1,400 degrees F during operation. [District NSR Rule] Federally Enforceable Through Title V Permit
- 6. The landfill gas consumption rate for the flare shall not exceed 48.0 MMBtu per hour. [District NSR Rule] Federally Enforceable Through Title V Permit
- Landfill gas consumption rate for the flare shall not exceed 804 MMSCF per year. [District NSR Rule] Federally 7. Enforceable Through Title V Permit
- Emissions from the flare shall not exceed any of the following emission limits: 0.05 lb NOx/MMbtu, 0.0215 lb SOx/MMbtu, 0.2 lb CO/MMbtu, 0.0113 lb VOC/MMbtu (20 ppmv), or 0.034 lb PM10/MMbtu. [District NSR Rule] Federally Enforceable Through Title V Permit
- The facility shall install and maintain in proper operating condition a gas flow meter with a continuous recording device which measures the amount of landfill gas consumed per day. [District NSR Rule] Federally Enforceable Through Title V Permit
- 10. The flare shall be equipped with a temperature indicator and recorder that measures and records the operating temperature. The temperature indicator and recorder must operate continuously. [District NSR Rule] Federally Enforceable Through Title V Permit
- 11. The enclosed flare shall be equipped with automatic dampers, an automatic shutdown device, and a flame arrester. [District NSR Rule] Federally Enforceable Through Title V Permit
- 12. The enclosed flare shall be equipped with an LPG or natural gas fired pilot. [District NSR Rule] Federally Enforceable Through Title V Permit

PERMIT UNIT REQUIREMENTS CONTINUE ON NEXT PAGE These terms and conditions are part of the Facility-wide Permit to Operate.

Facility Name: FORWARD, INC. LANDFILL

Location: 9999 S. AUSTIN ROAD, MANTECA, CA 95336 N-339-17-8: Aug 25 2011 3:32PM - KEASTMD

- 13. Source testing on the flare shall be performed to demonstrate compliance with the NOx and CO limits, and the VOC destruction efficiency of 98% as required by this permit shall be conducted annually. [District NSR Rule] Federally Enforceable Through Title V Permit
- 14. Source testing for NOx shall be conducted using CARB Method 7 or Method 20. [District Rule 1081] Federally Enforceable Through Title V Permit
- 15. Source testing for CO shall be conducted using EPA Method 10 or 10B, CARB Methods 1 through 5 with 10, or CARB Method 100. [District Rule 1081] Federally Enforceable Through Title V Permit
- 16. VOC emissions shall be measured by EPA Method 18 or 25. [District Rule 1081] Federally Enforceable Through Title V Permit
- 17. H2S concentration of the influent landfill gas to the flare shall not exceed 46.9 ppmv. [District NSR Rule] Federally Enforceable Through Title V Permit
- 18. Gas combusted in the flare shall be tested for H2S content on a quarterly basis using draeger tubes. If compliance is shown for two consecutive quarters, the testing frequency may be changed to annual. Quarterly testing shall resume if any annual test shows noncompliance. [District Rule 1081] Federally Enforceable Through Title V Permit
- 19. Carbon canister on condensate storage tank vent shall be inspected monthly for breakthrough with a District-approved portable analyzer. [District NSR Rule] Federally Enforceable Through Title V Permit
- 20. The gas collection system shall be operated in such a manner that the surface emissions testing of the landfill shows the concentrations of total organic compounds (measured as methane) do not exceed 1,000 ppmv at any point on the surface of the solid waste disposal site or along the gas transfer path of the gas collection system. Sampling ports shall be installed on each well head. [District NSR Rule] Federally Enforceable Through Title V Permit
- 21. Gas collection system shall be operated in a manner which maximizes the amount of landfill gas extracted while preventing overdraw that can cause fires or damage the gas collection system. [District NSR Rule] Federally Enforceable Through Title V Permit
- 22. During maintenance of the gas collection system or incineration device, emissions of landfill gas shall be minimized during shutdown. [District NSR Rule] Federally Enforceable Through Title V Permit
- 23. Maintenance is defined as work performed on a gas collection system and/or control device in order to ensure continued compliance with District rules, regulations, and/or Permits to Operate, and to prevent its failure or malfunction. [District NSR Rule] Federally Enforceable Through Title V Permit
- 24. The gas collection system shall be operated such that the concentration of total organic compounds (as CH4) shall not exceed 1,000 ppmy at any point along the gas transfer path of the gas collection system. [District NSR Rule] Federally Enforceable Through Title V Permit
- 25. The entire gas collection system shall be inspected for leaks with a portable analyzer in accordance with EPA Method 21 at least quarterly. After four successful inspections, the frequency shall be annually. If a leak is detected, quarterly inspections shall resume. A leak is defined as a measurement in excess of 1,000 ppm (measured as methane) above background when measured at a distance of one (1) centimeter from the potential source. Leaks shall be repaired within 15 calendar days after it is detected. [District NSR Rule] Federally Enforceable Through Title V Permit
- 26. The permittee shall notify the APCO by telephone at least 24 hours before performing any maintenance work that requires the system to be shutdown. The notification shall include a description of work, the date work will be performed and the amount of time needed to complete the maintenance work. [District NSR Rule] Federally Enforceable Through Title V Permit
- 27. Permittee shall maintain records of system inspections including: date, time and inspection results. [District Rule 1070] Federally Enforceable Through Title V Permit
- 28. Permittee shall maintain records of maintenance related or other collection system and control device downtime, including individual well shutdown. [District Rule 1070] Federally Enforceable Through Title V Permit

Facility Name: FORWARD, INC. LANDFILL

Location: 9999 S. AUSTIN ROAD, MANTECA, CA 95336 N-339-17-8: Aug 25 2011 3.32PM - KEASTMD

- 29. The operator shall record emission control device source tests (emissions of CO, NOx, and VOC) in pounds per MMbtu heat input. Operator shall also record VOC destruction/treatment efficiency. [District Rule 1081] Federally Enforceable Through Title V Permit
- 30. Permittee shall maintain daily records of landfill gas flow rate to the flare. [District Rule 1070] Federally Enforceable Through Title V Permit
- 31. Permittee shall maintain annual records of landfill gas flow rate to the flare. [District NSR Rule] Federally Enforceable Through Title V Permit
- 32. All records shall be retained for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070] Federally Enforceable Through Title V Permit
- 33. A record of continuous flare combustion temperature, continuous volumetric gas flow rate, net heating value of landfill gas being combusted, daily average fuel consumption, daily average heat input, and carbon canister inspection shall be maintained, retained on the premises for a period of at least five years and made readily available for District inspection upon request. [District NSR Rule] Federally Enforceable Through Title V Permit
- 34. This operating permit may be cancelled with APCO approval when the landfill is closed, pursuant to the requirements of this permit, if the landfill is not otherwise subject to the requirements of either 40 CFR part 70 or part 71 and if either 1) it was never subject to the requirement for a control system under 40 CFR 60.752(b)(2); or 2) the owner or operator meets the conditions for control system removal specified in 40 CFR 60.752(b)(2)(v). [40 CFR 60.752(d)] Federally Enforceable Through Title V Permit
- 35. If the landfill is permanently closed, a closure notification shall be submitted to the APCO within 30 days of waste disposal cessation. A permanent closure must take place in accordance with 40 CFR 258.60. If a closure report has been submitted, no additional waste may be placed in the landfill without filing a notification of modification to the APCO, pursuant to 40 CFR 60.7(a)(4). [40 CFR 60.752(b)(1)(ii)(B), 60.757(d)] Federally Enforceable Through Title V Permit
- 36. An active collection system shall be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment, collect has from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of 5 years or more if active; or 2 years or more if closed or at final grade, collect gas at a sufficient extraction rate, and be designed to minimize off-site migration of subsurface gas. [40 CFR 60.752(b)(2)(ii)(A)] Federally Enforceable Through Title V Permit
- 37. All collected gas shall be routed to a control system designed and operated to reduce the NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen. The reduction efficiency shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in Section 60.754(d). [40] CFR 60.752(b)(2)(iii)(B)] Federally Enforceable Through Title V Permit
- 38. Permittee shall operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing. [40 CFR 60.753(d)] Federally Enforceable Through Title V Permit
- 39. Compliance with this surface methane operational standard shall be demonstrated using the procedures outlined in 40 CFR 60.755(c) within 180 days of installation and startup of the collection and control system and quarterly thereafter. [40 CFR 60.753(d), 40 CFR 60.755(c), and 40 CFR 60.8] Federally Enforceable Through Title V Permit
- 40. Permittee shall operate the enclosed flare at all times when the collected gas is routed to it. [40 CFR 60.753(f)] Federally Enforceable Through Title V Permit

- 41. Permittee shall operate the landfill gas collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for: (1) five years or more if active; or (2) two years or more if closed or at final grade. [40 CFR 60.753(a)] Federally Enforceable Through Title V Permit
- 42. Permittee shall operate the landfill gas collection system with negative pressure at each wellhead except under the following conditions: (1) A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports ass provided in 60.757(f)(1); (2) Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan; (3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the APCO. [40 CFR 60.753(b)] Federally Enforceable Through Title V Permit
- 43. The collection system shall be operated so that the methane concentration is less than 500 parts per million above background at the surface of the landfill, and such that all collected gases are vented to a control system designed and operated in compliance with \(^1\) 60.752(b)(2)(iii). In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour. [40 CFR 60.753(d), (e)] Federally Enforceable Through Title V **Permit**
- 44. If monitoring demonstrates that the operational requirements in paragraphs (b), (c), or (d) of section 60.753 are not met, corrective action shall be taken as specified in 40 CFR 60.755(a)(3 - 5) or (c). If corrective actions are taken as specified in 60.755, the monitored exceedance is not a violation of the operational requirements in this section. [40 CFR 60.753(g)] Federally Enforceable Through Title V Permit
- 45. For each interior wellhead, the nitrogen level shall be determined using Method 3C, unless an alternative test method is established as allowed by 60.752(b)(2)(i) of this subpart. [40 CFR 60.753(c)(1)] Federally Enforceable Through Title V Permit
- 46. For each interior wellhead, unless an alternative test method is established as allowed by 60.752(b)(2)(i) of this subpart, the oxygen shall be determined by an oxygen meter using Method 3A or 3C except that: (i) The span shall be set so that the regulatory limit is between 20 and 50 percent of the span; (ii) A data recorder is not required; (iii) Only two calibration gases are required, a zero and span, and ambient air may be used as the span; (iv) A calibration error check is not required; (v) The allowable sample bias, zero drift, and calibration drift are ñ10 percent. [40 CFR 60.753(c)(2)] Federally Enforceable Through Title V Permit
- 47. Permittee shall calculate the NMOC emission rate for purposes of determining when the collection and control system can be removed as provided in 40 CFR 60.752(b)(2)(v) by using the equation found in 40 CFR 60.754(b). [40 CFR 60.754(b)] Federally Enforceable Through Title V Permit
- 48. For the performance test required in 60.752(b)(2)(iii)(B), Method 25, 25C, or Method 18 of Appendix A must be used to determine compliance with the 98 weight percent efficiency or the 20 ppmv outlet concentration level, unless another method to demonstrate compliance has been approved by the APCO as provided by 60.752(b)(2)(i)(B). Method 3 or 3A shall be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (8 ppm NMOC as hexane), Method 25A should be used in place of Method 25. If using Method 18 of appendix A, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). The following equation shall be used to calculate efficiency: (NMOCin - NMOCout)/NMOCin. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081; 40 CFR 60.754(d)] Federally Enforceable Through Title V Permit
- 49. For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with 60.752(b)(2)(ii)(A)(1), one of the equations in Section 60.755(a)(1)(i) or (ii) or (iii) shall be used. [40] CFR 60.755(a)(1)] Federally Enforceable Through Title V Permit
- 50. For the purposes of determining sufficient density of gas collectors for compliance with 60.752(b)(2)(ii)(A)(2), the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the APCO, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards. [40 CFR 60.755(a)(2)] Federally Enforceable Through Title V Permit

- 51. For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with 60.752(b)(2)(ii)(A)(3), the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under 60.753(b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the APCO for approval. [40 CFR 60.755(a)(3)] Federally Enforceable Through Title V Permit
- 52. Owners or operators are not required to expand the system as required in paragraph 60.755(a)(3) during the first 180 days after gas collection system startup. [40 CFR 60.755(a)(4)] Federally Enforceable Through Title V Permit
- 53. For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in 60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedance of other operational or performance standards. An alternative timeline for corrected in the exceedance may be submitted to the APCO for approval. [40 CFR 60.755(a)(5)] Federally Enforceable Through Title V Permit
- 54. The provisions of this subpart apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices. [40 CFR 60.755(e)] Federally Enforceable Through Title V Permit
- 55. Surface testing shall be performed on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in 40 CFR 60.755(d). [40 CFR 60.755(c)(1)] Federally Enforceable Through Title V Permit
- 56. The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells. [40 CFR 60.755(c)(2)] Federally Enforceable Through Title V Permit
- 57. Surface emission monitoring shall be performed in accordance with section 4.3.1 of Method 21 of appendix A, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions. Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in 40 CFR 60.755(c)(4)(i-v) shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of 60.753(d). [40 CFR 60.755(c)(3), (4)] Federally Enforceable Through Title V Permit
- 58. Permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis. [40 CFR 60.755(c)(5)] Federally Enforceable Through Title V Permit
- 59. The portable analyzer shall meet the instrument specifications of Method 21, section 3 (except that "methane" shall replace all references to VOC). The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air. To meet the performance evaluation requirements of Method 21, section 3.1.3, the instrument evaluation procedures of Method 21, section 4.4 shall be used. The calibration procedures provided in Method 21, section 4.2 shall be followed immediately before commencing a surface monitoring survey. The provisions of this condition apply at all times, except during periods of start-up, shutdown, or malfunction which shall not exceed 5 days for collections systems and shall not exceed 1 hour for treatment or control devices. [40 CFR 60.755(d), (e)] Federally Enforceable Through Title V Permit
- 60. Each wellhead shall have a sampling port and a thermometer, other temperature-measuring device, or an access port for temperature measurements. [40 CFR 60.756(a)] Federally Enforceable Through Title V Permit

- 61. The enclosed flare shall be equipped with a temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ñ1 percent of the temperature being measured expressed in degrees Celsius or ñ 0.5 degrees Celsius, whichever is greater. [District NSR Rule; 40 CFR 60.756(b)(1)] Federally Enforceable Through Title V Permit
- 62. The enclosed flare shall be equipped with either a device that records flow to the control device. The owner or operator shall install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes. [40 CFR 60.756(b)(2)] Federally Enforceable Through Title V Permit
- 63. Operator shall measure the gauge pressure in the gas collection header on a monthly basis as provided in \(^{\pm}\) 60.755(a)(3); and monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in ¹ 60.755(a)(5); and monitor temperature of the landfill gas on a monthly basis as provided in \(^1\) 60.755(a)(5). [40 CFR 60.756(a)] Federally Enforceable Through Title V Permit
- 64. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring. [40 CFR 60.756(f)] Federally Enforceable Through Title V Permit
- Each owner or operator shall keep for at least 5 years up-to-date, readily accessible, on-site records of the maximum design capacity, the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. [40 CFR 60.758(a) and District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR 60.8. The initial report shall include information specified in 40 CFR 60.757(g)(1-6). [40 CFR 60.757(f), (g)] Federally Enforceable Through Title V Permit
- 67. The following constitute exceedances that shall be recorded and reported under 40 CFR 60.757(f): all 3-hour periods of operation during which the average combustion temperature was more than 28 øC below the average combustion temperature during the most recent performance test (flare source test). [40 CFR 60.758(c)] Federally Enforceable Through Title V Permit
- 68. Except as provided in 60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in paragraphs 60.758(b)(1) through (b)(4) as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal. [40 CFR 60.758(b)] Federally Enforceable Through Title V Permit
- 69. Permittee shall keep the following records: (1)(i) the maximum expected gas generation flow rate as calculated in 60.755(a)(1). The owner or operator may use another method to determine the maximum gas generation flow rate, if the method has been approved by the APCO; (ii) the density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 60.759(a)(1); (2)(i) the average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test; (ii) the percent reduction of NMOC determined as specified in 60.752(b)(2)(ii)(B) achieved by the control device. [40 CFR 60.758(b)(1) and (2)] Federally Enforceable Through Title V Permit
- 70. Permittee shall keep up-to-date, readily accessible continuous records of the indication of flow to the enclosed flare. [40 CFR 60.758(c)] Federally Enforceable Through Title V Permit
- 71. Except as provided in 60.752(b)(2)(i)(B), permittee shall keep, for the life of the collection system, an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector. Permittee shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as well as any nonproductive areas excluded from collection. [40 CFR 60.758(d)] Federally Enforceable Through Title V Permit

- 72. Except as provided in 60.752(b)(2)(i)(B), permittee shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in 60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance. [40 CFR 60.758(e)] Federally Enforceable Through Title V Permit
- 73. Each owner or operator seeking to comply with 40 CFR 60.752(b)(2)(i) shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the APCO as provided in 60.752(b)(2)(i)(C) and (D). [40 CFR 60.759(a)] Federally Enforceable Through Title V Permit
- 74. The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat. [40 CFR 60.759(a)(1)] Federally Enforceable Through Title V Permit
- 75. The placement of gas collection devices determined in paragraph 60.759(a)(1) shall control all gas producing areas, except as provided by paragraphs 60.759(a)(3)(i) and (a)(3)(ii). [40 CFR 60.759(a)(3)] Federally Enforceable Through Title V Permit
- 76. The sufficient density of gas collection devices determined in paragraph 60.759(a)(1) shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior. [40 CFR 60.759(a)(2)] Federally Enforceable Through Title V Permit
- 77. Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under 60.758(d). The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area, and shall be provided to the Administrator upon request. [40 CFR 60.759(a)(3)(i)] Federally Enforceable Through Title V Permit
- 78. Any nonproductive area of the landfill may be excluded from control provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to the Administrator upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill. Emissions from each section shall be computed using the equation in Section 60.759(a)(3)(ii). [40 CFR 60.759(a)(3)(ii)] Federally Enforceable Through Title V Permit
- 79. The values for k and CNMOC in equation in Section 60.759(a)(3)(ii) determined in field testing shall be used if field testing has been performed in determining the NMOC emission rate or the radii of influence (this distance from the well center to a point in the landfill where the pressure gradient applied by the blower or compressor approaches zero). If field testing has not been performed, the default values for k, Lo, and CNMOC provided in 60.754(a)(1) or the alternative values from 60.754(a)(5) shall be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided the nature, location, age, and amount of the nondegradable material is documented as provided in paragraph 60.759(a)(3)(i). [40 CFR 60.759(a)(3)(iii)] Federally Enforceable Through Title V Permit

- 80. Each owner or operator seeking to comply with 60.752(b)(2)(i)(A) shall construct the gas collection devices using the following equipment or procedures: (1) The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to: convey projected amounts of gases; withstand installation, static, and settlement forces; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration; (2) Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations; (3) Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness. [40 CFR 60.759(b)] Federally Enforceable Through Title V Permit
- 81. Each owner or operator seeking to comply with 60.752(b)(2)(i)(A) shall convey the landfill gas to a control system in compliance with 60.752(b)(2)(iii) through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures: (1) For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in paragraph 60.759(c)(2) shall be used; (2) For new collection systems, the maximum flow rate shall be in accordance with 60.755(a)(1). [40 CFR 60.759(c)] Federally Enforceable Through Title V Permit
- 82. The gas collection and control system shall comply with the operational standards of 40 CFR 60.753, the compliance provisions of 40 CFR 60.755, the monitoring provisions of 40 CFR 60.756, the reporting and record keeping requirements of 40 CFR 60.757 and 60.758, and the requirements of 40 CFR 60.759 (for active collection systems), except as allowed in conditions 40 and 41. [40 CFR 60.752(b)(2)(ii), 60.753, 60.755, 60.756, 60.757, 60.758, and 60.759] Federally Enforceable Through Title V Permit
- 83. All exterior vapor extraction wells, leachate collection system components, and perimeter horizontal collectors are exempt from the operational standards of 40 CFR 60.753 and the compliance provisions of 40 CFR 60.755 and shall not be located over any waste. Forward Inc. shall keep records of all components that qualify for this exemption and note their location with respect to the landfill's perimeter. [40 CFR 60.752(b)(2)(ii), 60.753, 60.755, 60.756, 60.757, 60.758, and 60.759] Federally Enforceable Through Title V Permit
- 84. Components of the gas collection and control system with wellhead oxygen content no greater than 15% by volume are allowed. All other provisions of Condition #82 apply. Forward Inc. shall keep records of all components that qualify for the higher wellhead oxygen limit. Records shall include interior wellhead and collection system landfill gas temperature which shall be less than 55 C (131 F) and shall keep records of methane % by volume to indicate that methanogenic activity is continuing to occur. [40 CFR 60.752(b)(2)(ii), 60.753, 60.755, 60.756, 60.757, 60.758, and 60.759] Federally Enforceable Through Title V Permit
- 85. Forward Inc. may remove extraction wells from service provided operational requirements of remaining extraction wells and surface emissions are within permit limits. Forward Inc. shall keep records of quarterly surface emission monitoring and probe monitoring for subsurface migration, as required under NSPS to indicate if removal of any of the collectors results in insufficient collection system coverage. [40 CFR 60.752(b)(2)(ii), 60.753, 60.755, 60.756, 60.757, 60.758, and 60.759] Federally Enforceable Through Title V Permit
- 86. Each owner or operator, required by 40 CFR 60.752(b)(2) of subpart WWW to install a collection and control system, shall comply with the requirements in 40 CFR 63.1960 through 63.1985 and with the general provisions specified in table 1 of 40 CFR 63 subpart AAAA. [40 CFR 63.1955(b)] Federally Enforceable Through Title V Permit

87. For approval of collection and control systems that include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions, owner or operator must follow the procedures in 40 CFR 60.752(b)(2). If alternatives have already been approved under 40 CFR part 60 subpart WWW, these alternatives can be used to comply with 40 CFR 63 subpart AAAA, except that all affected sources must comply with the startup, shutdown, and malfunction (SSM) requirements in subpart A of 40 CFR 63 as specified in Table 1 of 40 CFR 63 subpart AAAA and all affected sources must submit compliance reports every 6 months as specified in 40 CFR 63.1980(a) and (b), including information on all deviations that occurred during the 6-month reporting period. Deviations for continuous emission monitors or numerical continuous parameter monitors must be determined using a 3 hour monitoring block average. [40 CFR 63.1955(c)] Federally Enforceable Through Title V **Permit**