



**AIR QUALITY MANAGEMENT DISTRICT**  
330 Fair Lane, Placerville, CA 95667  
Phone: (530) 621-7501 Fax: (530) 295-2774  
<http://www.edcgov.us/AirQualityManagement>

## PERMIT TO OPERATE #10-1400

Revocable and Non-Transferable  
Valid from 07-01-2012 until revoked or cancelled  
Permit fees due annually

**PERMIT ISSUED TO:**  
El Dorado County Community  
Development Agency  
2850 Fairlane Ct  
Placerville CA 95667

**EQUIPMENT LOCATION:**  
El Dorado County Union Mine  
Landfill  
5700 Union Mine Road  
El Dorado

This Permit is for the equipment described below and as shown on approved plans and specifications. Equipment operation is subject to the conditions listed on the following pages.

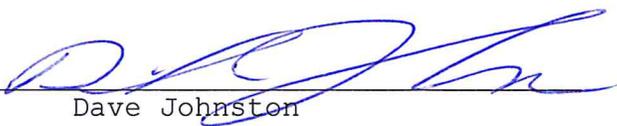
### Gas Flare

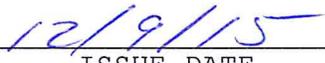
<b>Type</b>	Landfill Gas Flare
<b>Make</b>	John Zink Enclosed Flare
<b>Model</b>	ZTOF, 6' OD X 40' High
<b>Capacity (cfm)</b>	400 Max.
<b>Associated Equipment</b>	Waste Water Injection System

The annual fees for this permit cover eleven hours of staff time; any additional hours required will be billed at the approved District rate.

This Permit does not authorize the emission of air contaminants in excess of limits allowed by federal, state, or district rules and regulations. Air Quality Management District Rules are available at District Office and [www.arb.ca.gov/drdb/ed/cur.htm](http://www.arb.ca.gov/drdb/ed/cur.htm)

BY

  
Dave Johnston  
AIR POLLUTION CONTROL OFFICER

  
ISSUE DATE

**THANK YOU FOR WORKING WITH US TO IMPROVE AIR QUALITY.**

**PERMIT TO OPERATE CONDITIONS**  
**EL DORADO COUNTY - UNION MINE LANDFILL**  
**PERMIT NUMBER: 10-1400**

All applicant proposals are conditions of approval unless otherwise specified herein.

**GENERAL CONDITIONS**

1. If any permit condition is found invalid, such finding shall not affect the remaining permit conditions.
2. **PERMIT ACCEPTANCE:** Permit acceptance is deemed acceptance of all conditions specified herein and acceptance of the El Dorado County Air Quality Management District (District) Rules and Regulations.
3. **OPERATION:** Equipment operation must be conducted in compliance with all data and specifications submitted with the application under which this permit was issued. (Rule 501, General Permit Requirements section 501.4.E)
4. **PERMIT AMENDMENT:** The District reserves the right to amend this permit, upon annual renewal, in order to insure facility compliance with District Rules and Regulations. (Rule 501, General Permit Requirements section 501.3.F)
5. **CHANGE OF OWNERSHIP:** The District must be notified prior to change of ownership, building, erecting, altering or replacing any article, machine, equipment or other contrivance, the use of which may cause, eliminate, reduce, or control the issuance of air contaminants. (Rule 501, General Permit Requirements section 501.3)
6. **UPSET/BREAKDOWN:** The District must be notified of any upset or breakdown. (Rule 516, Upset Breakdown Conditions)
7. **ADDITIONAL SOURCES:** The District must be notified prior to the addition, altering or replacement of any equipment or other contrivance, the use of which may cause, eliminate, reduce, or control the issuance of air contaminants. (Rule 501, General Permit Requirements section 501.3.A)
8. **NUISANCE:** A person shall not discharge from any source quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons, or to the public, or which endanger the comfort, repose, health or safety of any such persons, or the public, or which cause to have a natural tendency to cause injury or damage to business or property. (Rule 205, Nuisance)
9. **RIGHT OF ENTRY:** To enforce or administer any State or local law, order, regulation, or rule relating to air pollution, the Air Pollution Control Officer and his duly authorized agents shall have the right of entry to any premises on which an air pollution

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emission source is located for the purpose of inspecting such source, including securing samples of emissions there from or any records required to be maintained therewith by the District. The Air Pollution Control Officer or his duly authorized agent shall have the right to inspect sampling and monitoring apparatus as deemed necessary. (Rule 509, Authority to Inspect)

10. **PERMIT ON PREMISES:** The owner or operator shall maintain a legible copy of this permit on the premises of the subject equipment. (Rule 501, General Permit Requirements section 501.4.A)

**OPERATING CONDITIONS**

11. **FUELS:** With the exception of fuel for the pilot light, the owner or operator shall not use any fuel other than landfill gas in the control system.
12. **CONTROLLERS AND RECORDERS:** The owner or operator shall operate and maintain:
- (a) A gas flow meter and flow recorder on the landfill gas inlet line that shall record the flow to the control device at least every 15 minutes. The flare shall not have any mechanism, which allows landfill gas to bypass either the flare or the gas measurement system;
  - (b) A temperature controller on the exhaust that automatically controls the air admitted at the aspirated air louvers to maintain a preset flare exhaust temperature;
  - (c) A continuous temperature recorder, with an accuracy of 1 percent of the temperature being measured expressed in degrees Celsius or 0.5°C (0.9°F), whichever is greater, to record the flare exhaust temperature versus time;
  - (d) A fixed temperature monitor that displays the exhaust temperature;
  - (e) An oxygen analyzer/monitor on the landfill gas control system inlet line;
  - (f) A high-oxygen shutoff on the landfill gas blower drivers; and,
  - (g) Low temperature, flame-out, and high temperature flare-feed shutoffs.
13. **MANUFACTURER'S RECOMMENDED SETPOINTS AND CALIBRATION:** The owner or operator shall:
- (a) Set the flare low and high temperature shutoffs to activate at temperatures specified by the manufacturer;
  - (b) Set the control system high oxygen shut-off to activate at a level specified by the equipment manufacturer;
  - (c) Inspect, repair and calibrate the safety/control instruments in accordance with manufacturer's recommendations; and,
  - (d) Maintain the records of calibration and repair and present them to District upon request.

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14. **ALARM SETTING:** Alarm setting shall be set at the manufacturer's default settings unless approved by the District to alter the settings.
15. **DESTRUCTION EFFICIENCIES:** The flare shall have a (ROC) NMOC destruction efficiency of 98% and TOC destruction efficiency of 99%.
16. **TESTING:** The owner or operator shall perform compliance testing once in every 3-year period. The tests shall be conducted at the maximum firing capacity achievable for the landfill gas generation rate at the time of testing. The following tests shall be conducted:

Compound	Control System Inlet	Control System Outlet	USEPA Test Methods
Methane	Yes	Yes	18 or 25A
Non-methane Organic Compounds	Yes	Yes	18, 25 or 25A
Reactive Organic Compounds	Yes	Yes	18 or 25A
Nitrogen Oxides	No	Yes	7E
Sulfur Oxides	No	Yes	6C
Carbon Monoxide	No	Yes	10
Total Particulate	No	Yes	1-5
Carbon Dioxide	Yes	Yes	3 or 3A

17. **TEST PROTOCOL:** The owner or operator shall submit a protocol to the District for review and approval for the compliance test at least 30 days prior to testing. At a minimum, the protocol shall include the date and time of testing, testing contractors contact information, test methods and the type of testing equipment to be used. The source test protocol shall be approved by the District prior to any testing.
18. **TEST REPORT:** The owner or operator shall furnish the District with a written report of the results of the compliance tests within 60 days after completion of the testing. At a minimum the report shall include the date and time of testing, testing contractors contact information, test methods utilized, pollutant concentrations on a dry basis in pounds per hour, and the NMOC destruction efficiency.

**EMISSION LIMITATIONS**

22. **VISIBLE EMISSIONS:** No source of emissions shall be as dark or darker in shade as that designated as No. 1 (20% Opacity) on the Ringelmann Chart for a period or periods aggregating more than three (3) minutes in any one hour. (Rule 202, Visible Emissions)

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23. Emissions from the flare shall not exceed the following:

Pollutant	Emission Limits				
	(lbs/day)	(lbs/qtr)	(tons/yr)	(gr/dscf)	ppmv
NO <sub>x</sub> (as NO <sub>2</sub> )	27.2	2,482	4.96	NA	NA
CO	70	6,388	12.78	NA	NA
PM10	27.2	2,482	4.96	NA	NA
PM	NA	NA	NA	0.10	NA
ROC (as CH <sub>4</sub> )	1.4	125	0.25	NA	NA
SO <sub>x</sub> (as SO <sub>2</sub> )	10.4	949	1.90	NA	2,000

**RECORD KEEPING AND REPORTING**

24. **EQUIPMENT RECORDS:** The following records shall be maintained for the life of the control equipment:
- (a) Records of the control device vendor specifications;
  - (b) The average combustion temperature measured at least every 15 minutes and averaged during the flare performance tests; and,
  - (c) The percent reduction of ROC (NMOC), achieved by the control device as recorded during the flare performance tests
25. **FLOW RECORDS:** The owner or operator shall keep up-to-date and readily accessible continuous records of the indication of flow to the control device.
27. **RECORD RETENTION:** All record keeping logs shall be retained for no less than 5 years and shall be made available to District personnel upon request. (Rule 501, General Permit Requirements section 501.5.C.1)

END OF CONDITIONS

