



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hillton • Boise, Idaho 83706 • (208) 373-0502

C.L. "Butch" Otter, Governor
Toni Hardesty, Director

December 16, 2008

Certified Mail No. 7190 0596 0014 0000 4776

Alan Scharbrough, Landfill Supervisor
Clay Peak Municipal Solid Waste Landfill
Payette County, 2560 Hwy. 52
Payette, ID 83661

RE: Facility ID No. 075-00009, Clay Peak Municipal Solid Waste Landfill, Payette
Final Permit Letter

Dear Mr. Scharbrough:

The Department of Environmental Quality (DEQ) is issuing Permit to Construct (PTC) No. P-2008.0078 to Clay Peak Municipal Solid Waste Landfill (Clay Peak) for the installation of three additional flares on the landfill gas collection system located at Payette, in accordance with IDAPA 58.01.01.200 through 228 (Rules for the Control of Air Pollution in Idaho).

This permit is based on your permit application received on May 15, 2008. This permit is effective immediately and replaces PTC No. P-020034, issued on February 27, 2004, the terms and conditions of which no longer apply. This permit does not release Clay Peak from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances.

Pursuant to General Provision 5 of your permit, it is required that Construction and Operation Notification be provided. Please provide this information as listed to DEQ's Boise Regional Office, 1445 N. Orchard, Boise, ID 83706-2239, Fax (208) 373-0287.

In order to fully understand the compliance requirements of this permit, DEQ highly recommends that you schedule a meeting with Tom Krinke, Air Quality Compliance Officer, at (208) 373-0419 to review and discuss the terms and conditions of this permit. Should you choose to schedule this meeting, DEQ recommends the following representatives attend the meeting: your facility's plant manager, responsible official, environmental contact, and any other staff responsible for day-to-day compliance with permit conditions.

Pursuant to IDAPA 58.01.23, you, as well as any other entity, may have the right to appeal this final agency action within 35 days of the date of this decision. However, prior to filing a petition for a contested case, I encourage you to contact Darrin Pampaian at (208) 373-0502 or darrin.pampaian@deq.idaho.gov to address any questions or concerns you may have with the enclosed permit.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Simon". The signature is fluid and cursive, with the first name "Mike" and last name "Simon" clearly distinguishable.

Mike Simon
Stationary Source Program Manager
Air Quality Division

MS\DRP\hp

Project No. P-2008.0078

Enclosures



**Air Quality
PERMIT TO CONSTRUCT
State of Idaho
Department of Environmental Quality**

PERMIT No.: P-2008.0078
FACILITY ID No.: 075-00009
AQCR: 63 **CLASS:** B **ZONE:** 11
SIC: 4953 **NAICS:** 562212
UTM COORDINATE (km): 510.8, 4879.2

1. PERMITTEE

Clay Peak Municipal Solid Waste Landfill

2. PROJECT

Permit to Construct (PTC) Modification – Connect three new flares (for a total of seven flares) to the landfill gas collection system to control VOC emissions from an existing landfill

3. MAILING ADDRESS 2560 Hwy. 52	CITY Payette	STATE ID	ZIP 83661
4. FACILITY CONTACT Alan Scharbrough	TITLE Landfill Supervisor	TELEPHONE (208) 642-6036	
5. RESPONSIBLE OFFICIAL Alan Scharbrough	TITLE Landfill Supervisor	TELEPHONE (208) 642-6036	
6. EXACT PLANT LOCATION 2560 Hwy. 52, Payette, ID		COUNTY Payette	

7. GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS

Municipal Solid Waste Landfill

8. PERMIT AUTHORITY

This permit is issued according to the Rules for the Control of Air Pollution in Idaho, IDAPA 58.01.01.200 through 228, and pertains only to emissions of air contaminants regulated by the state of Idaho and to the sources specifically allowed to be constructed or modified by this permit.

This permit (a) does not affect the title of the premises upon which the equipment is to be located; (b) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from, or arising out of the design, installation, maintenance, or operation of the proposed equipment; (c) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; (d) in no manner implies or suggests that the Department of Environmental Quality (DEQ) or its officers, agents, or employees, assume any liability, directly or indirectly, for any loss due to damage to person or property caused by, resulting from, or arising out of design, installation, maintenance, or operation of the proposed equipment.

This permit will expire if construction has not begun within two years of its issue date or if construction is suspended for one year.

This permit has been granted on the basis of design information presented with its application. Changes in design, equipment or operations may be considered a modification. Modifications are subject to DEQ review in accordance with IDAPA 58.01.01.200 through 228 of the Rules for the Control of Air Pollution in Idaho.

Darrin Pampaian

DARRIN PAMPAIAN, PERMIT WRITER
DEPARTMENT OF ENVIRONMENTAL QUALITY

Mike Simon

MIKE SIMON, STATIONARY SOURCE PROGRAM MANAGER
DEPARTMENT OF ENVIRONMENTAL QUALITY

DATE MODIFIED/REVISED:	December 16, 2008
DATE ISSUED:	February 27, 2004

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Acronyms, Units, and Chemical Nomenclature

acfm	actual cubic feet per minute
AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EPA	U.S. Environmental Protection Agency
gpm	gallons per minute
gr	grain (1 lb = 7,000 grains)
HAPs	hazardous air pollutants
hp	horsepower
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
landfill gas	gas formed by the decomposition of trash deposited in a landfill
lb/hr	pound per hour
m	meter(s)
MACT	Maximum Achievable Control Technology
MMBtu	million British thermal units
NESHAP	Nation Emission Standards for Hazardous Air Pollutants
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
PM	particulate matter
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PTE	potential to emit
PVC	polyvinyl chloride, a common thermoplastic resin used to make plastic pipe
scf	standard cubic feet
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SM	synthetic minor
SO ₂	sulfur dioxide
SO _x	sulfur oxides
T/yr	tons per year
µg/m ³	micrograms per cubic meter
UTM	Universal Transverse Mercator
VOC	volatile organic compound

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-2008.0114

Permittee: Clay Peak Municipal Solid Waste Landfill
Location: Payette, Idaho

Facility ID No. 075-00009

1. PERMIT TO CONSTRUCT SCOPE

Purpose

- 1.1 The purpose of this permitting action is to allow for the installation of three new landfill gas flares and the expansion of the landfill gas collection system at Clay Peak Municipal Solid Waste Landfill (Clay Peak). This permitting action modifies the facility's existing permit, which established enforceable requirements for the facility's operations involving the flares and the landfill gas collection system, and the other significant emission sources at the facility in accordance with the *Rules for the Control of Air Pollution in Idaho*.
- 1.2 Those permit conditions that have been modified or revised by this permitting action are identified by a date citation located directly under the permit condition and on the right hand margin.
- 1.3 This PTC replaces PTC No. P-020034, issued on February 27, 2004, the terms and conditions of which shall no longer apply.

Regulated Sources

- 1.4 Table 1.1 lists all sources of regulated emissions in this PTC.

Table 1.1 SUMMARY OF REGULATED SOURCES

Permit Section	Source Description	Emissions Controls
2.	<u>LANDFILL GAS FLARE:</u> NW Flare 1.1 - Landfill Services Corp. model CF-5 flares with a heat input rating of 2.160 MMBtu/hr installed in 2001	None (considered an emission control device when combusting landfill gas)
	<u>LANDFILL GAS FLARE:</u> NE Flare 1.1 - Landfill Services Corp. model CF-5 flares with a heat input rating of 2.160 MMBtu/hr installed in 2001	None (considered an emission control device when combusting landfill gas)
	<u>LANDFILL GAS FLARE:</u> NW Flare 1.2 - Landfill Services Corp. model CF-5 flares with a heat input rating of 2.160 MMBtu/hr installed in 2004	None (considered an emission control device when combusting landfill gas)
	<u>LANDFILL GAS FLARE:</u> NE Flare 1.2 - Landfill Services Corp. model CF-5 flares with a heat input rating of 2.160 MMBtu/hr installed in 2005	None (considered an emission control device when combusting landfill gas)
	<u>LANDFILL GAS FLARE:</u> SW Flare 1.1 - Landfill Services Corp. model CF-5 flares with a heat input rating of 2.160 MMBtu/hr installed in 2007	None (considered an emission control device when combusting landfill gas)
	<u>LANDFILL GAS FLARE:</u> SE Flare 1.1 - Landfill Services Corp. model CF-5 flares with a heat input rating of 2.160 MMBtu/hr installed in 2007	None (considered an emission control device when combusting landfill gas)
	<u>LANDFILL GAS FLARE:</u> SE Flare 1.2 - Landfill Services Corp. model CF-5 flares with a heat input rating of 2.160 MMBtu/hr to be installed in 2008	None (considered an emission control device when combusting landfill gas)

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Permittee: Clay Peak Municipal Solid Waste Landfill

Location: Payette, Idaho

Facility ID No. 075-00009

2. SEVEN LANDFILL GAS FLARES

2.1 Process Description

Four existing flares and three proposed flares will be used at Clay Peak to combust landfill gas from the gas collection system. The four existing flares are connected to a manifold system which consists of perforated PVC pipes running directly from within landfill Cell No. 1. The flares are passively fed systems located on the periphery of Cell No. 1. The three proposed flares will be connected by a new manifold system to the existing flares. The manifold will service the existing PVC pipes and also the proposed gas collection wells that will be drilled across the north and south faces of Cell No. 1. Cell No. 1 will reach its waste acceptance capacity in 2009 at nearly one million tons of garbage.

Each flare has a solar panel that charges a battery pack. The batteries are used to power an arc which continuously fires at the discharge of the flare. This system ensures that the flares continuously combust the collected landfill gas. The landfill gas flow rates are variable. When there is a sufficient gas flow rate, the arc ignites the gas within the flare.

The landfill gas is composed of approximately 55% methane (CH₄), 40 % carbon dioxide (CO₂), 5% nitrogen (N₂), and a small amount of non-methane organic compounds (NMOC). Within the NMOC are some hazardous air pollutants (HAPs) and toxic air pollutants (TAPs). A trace amount of hydrogen sulfide (H₂S) gas is also found in the landfill gas.

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2.2 Emissions Control Description

Particulate matter emissions from the flares are uncontrolled. The NMOC and methane are combusted by the flares at a temperature between 900 – 1,300 °F. The combusted gases have a residence time of 0.6 seconds at low flow and 0.3 seconds at high flow, and the flare achieves a destruction efficiency of greater than 98%.

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Permittee: Clay Peak Municipal Solid Waste Landfill
Location: Payette, Idaho

Facility ID No. 075-00009

Table 2.1 SEVEN LANDFILL GAS FLARES DESCRIPTION

Emissions Units/Processes	Emissions Control Device	Emissions Point
Landfill Gas Flare (NW Flare 1.1)	N/A (Note: Is considered an emission control device when combusting biogas)	Exhaust stack NW FLARE 1.1 Exit height: 12.00 ft Exit diameter: N/A Exit flow rate: 30 cfm Exit temperature: 1,832 °F
Landfill Gas Flare (NE Flare 1.1)	N/A (Note: Is considered an emission control device when combusting biogas)	Exhaust stack NE FLARE 1.1 Exit height: 12.00 ft Exit diameter: N/A Exit flow rate: 30 cfm Exit temperature: 1,832 °F
Landfill Gas Flare (NW Flare 1.2)	N/A (Note: Is considered an emission control device when combusting biogas)	Exhaust stack NW FLARE 1.2 Exit height: 12.00 ft Exit diameter: N/A Exit flow rate: 30 cfm Exit temperature: 1,832 °F
Landfill Gas Flare (NE Flare 1.2)	N/A (Note: Is considered an emission control device when combusting biogas)	Exhaust stack NE FLARE 1.2 Exit height: 12.00 ft Exit diameter: N/A Exit flow rate: 30 cfm Exit temperature: 1,832 °F
Landfill Gas Flare (SW Flare 1.1)	N/A (Note: Is considered an emission control device when combusting biogas)	Exhaust stack SW FLARE 1.1 Exit height: 12.00 ft Exit diameter: N/A Exit flow rate: 30 cfm Exit temperature: 1,832 °F
Landfill Gas Flare (SE Flare 1.1)	N/A (Note: Is considered an emission control device when combusting biogas)	Exhaust stack SE FLARE 1.1 Exit height: 12.00 ft Exit diameter: N/A Exit flow rate: 30 cfm Exit temperature: 1,832 °F
Landfill Gas Flare (SE Flare 1.2)	N/A (Note: Is considered an emission control device when combusting biogas)	Exhaust stack SE FLARE 1.2 Exit height: 12.00 ft Exit diameter: N/A Exit flow rate: 30 cfm Exit temperature: 1,832 °F

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Emissions Limits

2.3 Opacity Limit

A person shall not discharge any air pollutant into the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625.

2.4 Odors

No person shall allow, suffer, cause, or permit the emissions of odorous gases, liquids, or solids to the atmosphere in such quantities as to cause air pollution in accordance with IDAPA 58.01.01.775-776.

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Permittee:	Clay Peak Municipal Solid Waste Landfill
Location:	Payette, Idaho

Facility ID No. 075-00009

2.5 Excess Emissions

The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130-136 for excess emissions due to startup, shutdown, scheduled maintenance, safety measures, upsets and breakdowns.

2.6 Open Burning

The permittee shall comply with provisions of IDAPA 58.01.01.600-616, *Rules for Control of Open Burning*.

Operating Requirements

2.7 Operations and Maintenance Manual

The permittee shall maintain an O&M manual for the landfill gas flares which describes the procedures that will be followed to comply with General Provision 2 and the manufacturer specifications for the flares. This manual shall remain onsite at all times and shall be made available to DEQ representatives upon request.

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Monitoring and Recordkeeping Requirements

2.8 Visible Emissions Monitoring

The permittee shall conduct a quarterly inspection of visible emissions from each of the flares during daylight hours and under normal operating conditions to demonstrate compliance with Permit Condition 2.4. The inspection shall consist of a see/no see evaluation of each flare for visible emissions. If any visible emissions are present from any flare, the permittee shall either take appropriate corrective action as expeditiously as practicable, or perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. A minimum of 30 observations shall be recorded when conducting the opacity test. If opacity is greater than 20% for a period or periods aggregating more than three minutes in any 60-minute period, the permittee shall take all necessary corrective action and report the exceedance in accordance with IDAPA 58.01.01.130-136.

The permittee shall maintain records of the results of each visible emissions inspection and each opacity test when conducted. The records shall include, at a minimum, the date and results of each inspection and test and a description of the following: the permittee's assessment of the conditions existing at the time visible emissions are present (if observed), any corrective action taken in response to the visible emissions, and the date corrective action was taken.

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Permittee:	Clay Peak Municipal Solid Waste Landfill	Facility ID No. 075-00009
Location:	Payette, Idaho	

2.9 Odor Complaints

The permittee shall maintain records of all odor complaints received to demonstrate compliance with Permit Condition 2.5. The permittee shall take appropriate corrective action as expeditiously as practicable. The records shall include, at a minimum, the date each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

2.10 Recordkeeping

The permittee shall comply with the recordkeeping requirements of General Provision 7.

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Permittee:	Clay Peak Municipal Solid Waste Landfill	Facility ID No. 075-00009
Location:	Payette, Idaho	

3. PERMIT TO CONSTRUCT GENERAL PROVISIONS

General Compliance

1. The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the Rules for the Control of Air Pollution in Idaho. The emissions of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the Rules for the Control of Air Pollution in Idaho, and the Environmental Protection and Health Act, Idaho Code §39-101, et seq.

[Idaho Code §39-101, et seq.]
2. The permittee shall at all times (except as provided in the Rules for the Control of Air Pollution in Idaho) maintain in good working order and operate as efficiently as practicable, all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.

[IDAPA 58.01.01.211, 5/1/94]
3. Nothing in this permit is intended to relieve or exempt the permittee from the responsibility to comply with all applicable local, state, or federal statutes, rules and regulations.

[IDAPA 58.01.01.212.01, 5/1/94]

Inspection and Entry

4. Upon presentation of credentials, the permittee shall allow DEQ or an authorized representative of DEQ to do the following:
 - a. Enter upon the permittee's premises where an emissions source is located or emissions related activity is conducted, or where records are kept under conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - d. As authorized by the Idaho Environmental Protection and Health Act, sample or monitor, at reasonable times, substances or parameters for the purpose of determining or ensuring compliance with this permit or applicable requirements.

[Idaho Code §39-108]

Construction and Operation Notification

5. The permittee shall furnish DEQ written notifications as follows in accordance with IDAPA 58.01.01.211:
 - a. A notification of the date of initiation of construction, within five working days after occurrence;
 - b. A notification of the date of any suspension of construction, if such suspension lasts for one year or more;
 - c. A notification of the anticipated date of initial start-up of the stationary source or facility not more than sixty days or less than thirty days prior to such date;

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Permittee:	Clay Peak Municipal Solid Waste Landfill	Facility ID No. 075-00009
Location:	Payette, Idaho	

- d. A notification of the actual date of initial start-up of the stationary source or facility within fifteen days after such date; and
- e. A notification of the initial date of achieving the maximum production rate, within five working days after occurrence - production rate and date.

[IDAPA 58.01.01.211, 5/1/94]

Performance Testing

- 6. If performance testing (air emissions source test) is required by this permit, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test date or shorter time period as approved by DEQ. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests that such testing not be performed on weekends or state holidays.

All performance testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, at least 30 days prior to conducting any performance test, the permittee is encouraged to submit a performance test protocol to DEQ for approval. The written protocol shall include a description of the test method(s) to be used, an explanation of any or unusual circumstances regarding the proposed test, and the proposed test schedule for conducting and reporting the test.

Within 30 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

[IDAPA 58.01.01.157, 4/5/00]

Monitoring and Recordkeeping

- 7. The permittee shall maintain sufficient records to ensure compliance with all of the terms and conditions of this permit. Records of monitoring information shall include, but not be limited to the following: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed the analyses; (d) the analytical techniques or methods used; (e) the results of such analyses; and (f) the operating conditions existing at the time of sampling or measurement. All monitoring records and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes, but is not limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by this permit. All records required to be maintained by this permit shall be made available in either hard copy or electronic format to DEQ representatives upon request.

[IDAPA 58.01.01.211, 5/1/94]

AIR QUALITY PERMIT TO CONSTRUCT NUMBER: P-2008.0114

Permittee:	Clay Peak Municipal Solid Waste Landfill	Facility ID No. 075-00009
Location:	Payette, Idaho	

Excess Emissions

8. The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130-136 for excess emissions due to startup, shutdown, scheduled maintenance, safety measures, upsets and breakdowns.

[IDAPA 58.01.01.130-136, 4/5/00]

Certification

9. All documents submitted to DEQ, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certification shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.

[IDAPA 58.01.01.123, 5/1/94]

False Statements

10. No person shall knowingly make any false statement, representation, or certification in any form, notice, or report required under this permit, or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.125, 3/23/98]

Tampering

11. No person shall knowingly render inaccurate any monitoring device or method required under this permit or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.126, 3/23/98]

Transferability

12. This permit is transferable in accordance with procedures listed in IDAPA 58.01.01.209.06.

[IDAPA 58.01.01.209.06, 4/11/06]

Severability

13. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

[IDAPA 58.01.01.322.15.h, 5/1/94; 40 CFR 70.6(a)(5)]