



Landfill Project Submittal Form

Instructions:

This form must be submitted to the Reserve and to the verifier in the first year of reporting prior to verification. In some cases, it may be necessary to update parts of the Project Submittal Form in subsequent years. **All information in this form will be made publicly available.**

These forms are to be used for reporting general Landfill Project information to the Climate Action Reserve in order to initiate the project listing process. All fields must be completed as thoroughly as possible. If the project in question is still in the planning/ development phase, all fields must be completed using best available data and estimates based on the proposed system design. Upon receipt of completed submittal forms, Reserve staff will perform a general eligibility screen (in accordance with the protocol version under which the project is submitted) based on the information provided. Project Developers can expect an Invoice for the \$500 project listing fee within 15 days of receipt of the completed forms, and a letter regarding the status of project within 15 days of the receipt of the project listing fee. If a project passes the eligibility screen, it will be officially "listed" with the Climate Action Reserve

This is an interactive Word form. Upon completion, please save this form as a PDF prior to returning it to the Reserve. This will lock your answers and protect the document from any further changes. All fields must be completed, even if the answer is also provided elsewhere; if a field is not applicable insert N/A in the space provided. The completed form must be saved and uploaded to your Climate Action Reserve account. Submit all questions regarding the project submittal process to: reserve@climatereserve.org.

Version 2.4
February 2009

Project Name: Davis Landfill Methane Offset Project

Project Developer: Wasatch Integrated Waste Management District

Facility Owner: Wasatch Integrated Waste Management District

Technical Consultants: n/a

Other Parties with a Material Interest:n/a

Date of form completion: 6/29/09

Form completed by (name): Nathan Rich

Section 1: General Site Information

1. Name of Landfill: Davis Landfill
2. Approximate Latitude/Longitude of Landfill Project (degrees/minutes/seconds):
Latitude: 41/06/56 Longitude: 111/56/04
3. Address (including county):
1997 East 3500 North
Layton, Utah 84041
Davis County
4. Owner of Landfill and owner contact information:
Wasatch Integrated Waste Management District
Nathan Rich, Executive Director
P.O. Box 900
Layton, Utah 84041
801-614-5601
5. Type of landfill (sanitary, controlled, or open dump): sanitary
6. Landfill size – designed area for waste placement (acre or hectare):
76.5 acres
7. Total waste in place (cubic meters or tons): 3,288,086 cubic meters as of 12/31/08
8. Designed landfill capacity (cubic meters or tonnes): 6,568,615 cubic meters
9. Year landfill opened: 1952
10. Year landfill closed or estimated date of closure: estimated 2023
11. Average annual quantity of waste accepted at landfill (cubic meters or tonnes):

175,926 cubic meters ash and msw

12. Waste Characteristics Table

Waste Types	Estimated Percent of Waste Stream
Paper and Paperboard	24.3
Glass	3.7
Metals	5.7
Plastics	7.4
Rubber and Leather	4.4
Textiles	
Wood	3.9
Food Scraps	15.4
Yard Trimmings	8.8
Misc. Inorganic Wastes	
Other	26.4

Explain basis of estimates (i.e. site specific information, regional or national studies, EPA, etc.):
Other is ash from municipal solid waste incinerator. Percentages for all other materials is EPA prorated to account for 26.4 percent ash by weight

Section 2: Project Eligibility and Monitoring

13. Initial verification period: 1/1/2008 through 6/30/2009

14. When did the project first commence operation, or when is the project expected to commence operation?

1/15/2002

15. Have any vintage reduction tonnes from the project ever been registered with or claimed by another registry or program, or sold to another third party prior to registering with the Reserve?

yes

If the answer is yes, you must complete and return a "Project Transfer" form.

16. Description of any regulatory framework for landfill methane capture and control (include an estimate of the date which the landfill will meet or exceed the 50 megagrams per year threshold of calculated NMOC emissions per NSPS/EG regulations and the type of testing that justifies the estimate (i.e. Tier 1 or Tier 2 NMOC emission rate estimates)):

The State of Utah has taken primacy over Federal requirement of Subpart Cc and WWW. State rules pretty much incorporate federal rules and are codified in UACR307-221. The landfill has determined site specific concentrations of 255.6 ppm for NMOCs using Tier 2 testing. The most recent Tier 2 test was conducted during November 2008. The most recent estimates of NMOC emissions from the landfill indicate that NMOC emissions will peak at 37.5 megagrams per year in the year 2032.

17. Description and citation of all local and state air and water quality, explosive gas, or other regulations pertinent to the landfill or project:

The State of Utah regulates landfill gas under the Division of Solid and Hazardous by rules in UACR315-303-2-(2)(a) An Owner or operator of a disposal facility shall not allow concentrations of explosive gases generated by the facility to exceed:(i) twenty-five percent of the lower explosive limit for explosive gases in facility structures, excluding gas control or recovery system components;(ii) the lower explosive limit for explosive gases at the property boundary or beyond.

The State of Utah Division of Air Quality has taken primacy over Federal NSPS/EG requirements which are found in Utah rules in UACR307-221

18. Is this project being implemented and maintained as the result of any law, statute, regulation, court order, or other preexisting legally binding mandate?

☐ Yes

☒ No

Comments (if any):

Gas collection and flare system initially installed in 2002 to control odor and migration of landfill gas. Energy recovery with internal combustion engines were added in 2005.

There is no regulatory requirement to control odor.

Utah Administrative Code R315-303-2(2) states that an owner or operator of a disposal facility shall not allow concentrations of explosive gases generated by the facility to exceed; 25% of the lower explosive limit in facility structures; and the lower explosive limit at the property boundary or beyond. There is no guidance as to how to meet these limits nor any requirement to destroy the methane.

19. Has a detailed monitoring plan been developed for this project? If not, what date will a monitoring plan be in place?

No. Monitoring and record keeping are currently being done according to CCX and internal protocol. A plan specifically addressing CAR requirements will be developed within 30 days.

20. What Version or publication date of the Landfill Project Reporting Protocol is the project documentation based upon? Will be based upon November, 2008 CAR reporting protocol version 2.0.

Section 3: Pre-project landfill gas control system information (fill out only if there was a landfill gas collection and/or control system in place that is separate from the Project system)

21. Type of pre-project landfill gas collection and control system in place, if any (e.g., open flare, enclosed flare, energy recovery etc.):

none

- i. If Landfill gas collection system is in place, is the system actively collecting or passively venting gas?

n/a

- ii. If flare or energy project is in place, what is the landfill gas flow rate (in scfm) and methane content?

n/a

- iii. Name of system designer, address and other contact information.

n/a

- iv. Supply a copy of the as built drawings for the pre-project system. Be sure to include in the diagram the location of all pre-project wells and/or other collection equipment and the location of all project-related wells and/or other collection equipment. (Attach as a separate PDF file titled: Pre-project LFG System Diagram)

22. When was this pre-project control system installed and operational?

n/a

23. Provide a summary of the permits obtained to build and operate this Landfill Gas Control System).

n/a

Section 4: Landfill gas utilization information for project activity

24. Landfill gas utilization (e.g., open-flared, enclosed flare, generation of electricity, use on-site as a boiler or furnace fuel, or sale to a third party):

Landfill gas is primarily sold to third party and used for generation of electricity on the adjacent Hill Air Force Base. When the generation facility is not able to accept the gas, it is destroyed on site in an enclosed flare.

25. When was this combustion/LFG utilization system installed and operational, or when is it expected to be installed and operational?

1/15/2002

26. If designed to generate electricity:

- i. Type of engine-generator set (e.g., internal combustion engine, micro turbine or fuel cell with the name of the manufacturer, model, power output rating (kW or MJ) for biogas, and nominal voltage :

n/a

- ii. Pretreatment of landfill gas (e.g., none, condensate trap, dryer, hydrogen sulfide removal, etc. with the names of manufacturers, models, etc.):

n/a

- iii. Exhaust gas emission control (e.g., none, catalytic converter, etc.):

n/a

- iv. If interconnected with an electric utility:

- Name of the utility: n/a
- Type of utility contract (e.g., sell all/buy all, surplus sale, or net metering):

n/a

- v. If engine-generator set waste heat utilization:

- Heat source (e.g., cooling system or exhaust gas or both) and heat recovery capacity (Btu or kJ/hr):

n/a

- Waste heat utilization (e.g., water heating, space heating, etc.):

n/a

27. If designed to use on-site as a boiler or furnace fuel, a description of the boiler or furnace including manufacturer, model, and rated capacity (Btu or kJ/hr):

n/a

28. If designed for biogas sale to a third party, a description of the methods of processing, transport, and end use:

Landfill gas is sold to a third party and used for the generation of electricity. Landfill gas is filtered, refrigerated for moisture removal and compressed to approximately 7 psi. The gas is then delivered to the third party via an 10 inch diameter HDPE pipeline over a distance of approximately 10,000 feet.

- i. Pretreatment of Biogas (e.g., none, condensate trap, dryer, hydrogen sulfide removal, etc.) include names of manufacturer, model etc.:

Condensate Trap, Amistco Separation Product, Inc. Tex-Mesh Mist Eliminator 2" of TM-DAEC 304 SS/Dacron mesh and 2" of TM-1112 304 SS mesh

Blower, Dresser Roots Model 412J

Air Cooled Heat Exchanger, Amercool Manufacturing

Particulate Filter, Graver Technologies coalescing filter part number 24140

Gas Chiller, Ketema DX Horizontal chiller (900 scfm) sn 232841

- ii. Exhaust gas emission controls from gas processing step:
none

29. Provide a summary and citation of the permits obtained to build and operate this Landfill Gas Utilization System).

None required.