

# MSW Landfill Regulation Regulatory Advisory

California Environmental Protection Agency

 **Air Resources Board**

December 2010

## Overview

On June 17, 2010, the regulation to reduce methane emissions from municipal solid waste (MSW) landfills became effective. It requires owners and operators of certain uncontrolled MSW landfills to install gas collection and control systems, and requires existing and newly installed gas collection and control systems to operate in an optimal manner. The regulation is a discrete early action measure to reduce greenhouse gas emissions in California as described in the Global Warming Solutions Act. A hardcopy of the regulation can be downloaded from the ARB website at: <http://www.arb.ca.gov/regact/2009/landfills09/landfillfinalfro.pdf>.

## Applicability

The regulation applies to all MSW landfills that received solid waste after January 1, 1977, active MSW landfills with less than 450,000 tons waste-in-place, and MSW landfills (active, closed, and inactive) with 450,000 tons or more waste-in-place. MSW landfills that are exempt from the regulation include: landfills receiving only hazardous waste or currently regulated under the Comprehensive Environmental Response Compensation and Liability Act; landfills receiving only construction and demolition wastes, inert waste, or non-decomposable wastes; and closed or inactive MSW landfills with less than 450,000 tons of waste-in-place.

## What reports must be submitted after the effective date of the regulation?

By September 17, 2010, owners and operators of active MSW landfills having less than 450,000 tons of waste-in-place were required to submit a Waste-in-Place Report to ARB. The report must be submitted annually until the landfill reaches a size greater than or equal to 450,000 tons of waste-in-place. Additionally, to determine if a gas collection and control system is required to be installed, owners or operators of MSW landfills having 450,000 tons of waste-in-place or greater must determine their landfill's gas heat input capacity and submit a report to ARB by September 17, 2010. However, due to the delayed approval date of the regulation, ARB is delaying enforcement of the September 17, 2010, compliance date for both of these reports until December 31, 2010.

## When must Annual Reports be submitted?

Due to the delayed effective date of the regulation, the data collection period for the **first** annual report should cover from January 1, 2011 to December 31, 2011, instead of June 17, 2010 (effective date) to December 31, 2010. This first annual report is due on March 15, 2012. All subsequent annual reports must cover the period from January 1<sup>st</sup> to December 31<sup>st</sup> of **each** year.

## To whom must the reports be submitted?

Reports in hardcopy format should be submitted to:

Mr. Renaldo Crooks  
California Air Resources Board/SSD  
1001 I Street  
Sacramento, CA 95814

Reports in digital format should be submitted to: [rcrooks@arb.ca.gov](mailto:rcrooks@arb.ca.gov).

## What is the compliance schedule for installing a gas collection and control system?

If a gas collection and control system which meets the requirements of the regulation has not been installed, a Design Plan must be submitted by the landfill owner or operator either by:

- June 17, 2011; or
- One year after the determining that the landfill gas heat input capacity is greater than 3.0 MMBtu/hr; or
- One year of measuring a leak on the landfill surface that exceeds 200 ppmv pursuant to the surface methane demonstration test (as specified in the regulation).

## Summary of Compliance Dates

Milestone	Compliance Date
Waste-in-Place Report (Active Landfills < 450,000 tons WIP <sup>1</sup> )	<ul style="list-style-type: none"> <li>• By December 31, 2010</li> </ul>
Landfill Gas Heat Capacity Report <sup>2</sup> (Landfills ≥ 450,000 tons WIP)	<ul style="list-style-type: none"> <li>• By December 31, 2010</li> </ul>
Gas Collection and Control System Design Plan	<ul style="list-style-type: none"> <li>• By June 17, 2011 or;</li> <li>• Within 1 year after determining landfill gas heat input capacity is ≥ 3.0 MMBtu/hr; or</li> <li>• Within 1 year detecting a leak on landfill surface ≥ 200 ppmv pursuant to the surface methane demonstration test.</li> </ul>
Installation of Collection and Control System	<ul style="list-style-type: none"> <li>• Within 18 months of Design Plan approval by the implementing agency (Active Landfill); or</li> <li>• Within 30 months of Design Plan approval by the implementing agency (Inactive Landfill).</li> </ul>
Surface Methane Emissions Monitoring	<ul style="list-style-type: none"> <li>• Starting July 1, 2011</li> </ul>
Initial Performance Test of Control System	<ul style="list-style-type: none"> <li>• Within 180 days from initial start up (Initial Test)</li> </ul>
Annual Report	<ul style="list-style-type: none"> <li>• By March 15 of <b>each</b> year (starting March 15, 2012)</li> </ul>

1. Waste-in-Place
2. ARB's Landfill Emissions Tool Version 1.2 is an acceptable method to use for this purpose. Visit our website at: [http://www.arb.ca.gov/cc/protocols/localgov/pubs/landfill\\_emissions\\_tool\\_v1\\_2\\_2010-06-03.xls](http://www.arb.ca.gov/cc/protocols/localgov/pubs/landfill_emissions_tool_v1_2_2010-06-03.xls).

### Surface Emissions Monitoring Requirements

Due to a delay in implementation, the January 1, 2011, enforcement of the integrated and instantaneous surface methane emission monitoring requirements will not begin until July 1, 2011. Owners and operators of MSW landfills must comply with all other requirements of the regulation (component leak checking, well head monitoring, etc.) beginning on, June 17, 2010.

### Implementation and Enforcement

The local air pollution control and air quality management districts ("districts") currently implement and enforce rules related to controlling emissions from landfills. ARB staff is working with local air districts in developing an agreement or a Memorandum of Understanding (MOU) by which these agencies can implement and enforce the regulation.

### Implementation Guidance Document

ARB staff has been working with stakeholders to develop an implementation guidance document that will assist MSW landfill owners or operators in complying with the requirements of the regulation. A draft version of the document is expected to be available in by the end of 2010.

### For More Information

If you would like to be informed of the current status of the regulation please contact Mr. Renaldo Crooks at [rcrooks@arb.ca.gov](mailto:rcrooks@arb.ca.gov) or (916) 327-5618, or visit our website at: <http://www.arb.ca.gov/cc/landfills/landfills.htm>. If you need this document in an alternative format or another language, please call (916) 323-4327. TTY/TDD/Speech users may dial 711 for a California Relay Service.