Draft Landfill Methane Control Measure
Landfill Technical Review Workgroup Conference Call
July 11, 2008

Presentation Overview
- Major Revisions
- Scope of the Measure
- Discussion Items
- Next Steps
- Questions
ARB Proposed Control Measure

Major Revisions

- Landfill size threshold
- Landfill gas heat input capacity threshold
- Exemption of CERCLA and hazardous waste landfills
- Surface monitoring frequencies

Major Revisions (Cont.)

- Cover Integrity Monitoring
- Component leak testing frequency
- Administrative requirements
- Temporary use of open flares
ARB Proposed Control Measure

**Scope of the Measure**

- Affects all MSW landfills
- \( \geq 450,000 \) tons of WIP
  - Install a gas collection and control system, unless exemption requirements are met
  - Comply with statewide standards
- \(< 450,000 \) tons of WIP
  - Must comply with specified reporting requirements

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ARB Proposed Control Measure

**Scope of the Measure**

- Limited Exemptions allowed if owner or operator:
  - Complies with surface methane emission limit (200 ppm); or
  - Has a landfill gas heat input capacity of \(< 3.0 \) MMBtu/hr; and
  - Meets specified reporting requirements
ARB Proposed Control Measure

Scope of the Measure (cont.)
- Prepare a Design Plan subject to approval (12 months)
- Install and operate GCCS 18 months after approval of Design Plan
- Flexible control options including enclosed flares and landfill gas-to-energy facilities
- Open flares allowed only under temporary conditions

ARB Proposed Control Measure

Scope of the Measure (Cont.)
- Performance Based Standards
  - 200 ppm instantaneous surface methane emission limit
  - 200 ppm component leak limit
  - Higher destruction efficiencies for gas control devices
ARB Proposed Control Measure

Scope of the Measure (Cont.)

- Surface Monitoring
  - Quarterly surface emission measurements for active landfills
  - Quarterly surface emission measurements reduced to annual (if in compliance) for inactive or closed landfills, or areas of active landfills that are closed or inactive
  - 25 foot increased to 100 foot (if in compliance) walking pattern spacing
  - Monthly cover integrity monitoring

Discussion Items

Current Enhanced Monitoring Requirements

- 200 ppmv surface methane limit
- Quarterly surface emission measurements for active landfills
- Quarterly surface emission measurements reduced to annual (if in compliance) for inactive or closed landfills, or areas of active landfills that are closed or inactive
- 25 foot increased to 100 foot (if in compliance) walking pattern spacing
- Monthly cover integrity monitoring
Discussion Items

Proposed Enhanced Monitoring Requirements

- New gas recovery systems – 200 ppmv surface methane limit
- Existing gas recovery systems – 500 ppmv surface methane limit
- Monthly landfill gas flow and methane concentration measurements for each wellhead
- Operate each wellhead under a vacuum (or negative pressure), except under certain conditions

Proposed Enhanced Monitoring Requirements (cont.)

- Recordkeeping to evaluate gas recovery trends
- Design Plan must contain procedures established by the landfill owner/operator to optimize collection efficiency of the gas recovery system based on the evaluation of collected monitoring data and ensure that the surface methane limit is maintained
Discussion Items

*Proposed Enhanced Monitoring Requirements (cont.)*

- Quarterly surface emission measurements for active landfills
- Quarterly surface emission measurements reduced to annual (if in compliance) for inactive or closed landfills, or areas of active landfills that are closed or inactive
- 25 foot increased to 100 foot walking pattern spacing (if in compliance)
- Monthly Cover Integrity Monitoring

Next Steps

- Continue to work with stakeholders
- Late December 2008 – Staff Report available for a 45-day formal public review and comment period
- January 2009 – Air Resources Board hearing to consider control measure adoption
- Fall 2009 – Anticipated effective date of the control measure
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Landfill Methane Control Measure Website:
http://www.arb.ca.gov/cc/landfills/landfills.htm

Questions about the Draft
Landfill Methane Control Measure?