



Draft Landfill Methane Control Measure

California Air Resources Board
April 22, 2008

Presentation Overview

- Background
- ARB's Proposed Control Measure
- Key Issues for Upcoming Stakeholder Meeting
- Next Steps
- Questions

Background

Emissions

- Landfills represent 1 to 2 percent of statewide GHG emissions
 - 1990: 6.26 MMTCO₂E
 - 2006: 5.80 MMTCO₂E
 - 2020: 7.64 MMTCO₂E (forecast)
- 60 uncontrolled landfills with 400,000 tons WIP or more by 2020
- Estimated emission reduction in 2020: 0.88 MMTCO₂E

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Background

Existing Regulations

- Local Air Districts Implement Federal Regulations
 - Primary focus:
 - Larger MSW landfills with a design capacity of 2.75 million tons or greater; and
 - Hydrocarbon emission rate off 55 tons/year or greater

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Background

ARB Proposed Control Measure

- Discrete early action under AB 32
- Enhanced control of methane emissions
- Require new collection systems at uncontrolled landfills
- Improve capture efficiencies at existing landfills

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ARB Proposed Measure

- Initial draft regulatory language
 - Public Workshop – March 24, 2008
- Looking for feedback from stakeholders
 - Lower surface emission standard
 - Landfill threshold cut-off
 - Increased monitoring frequencies

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ARB Proposed Measure

Scope of the Measure

- Affects all MSW landfills
- $\geq 400,000$ tons of WIP
 - Install a gas collection and control system, unless exemption requirements are met
 - Comply with statewide standards
- $< 400,000$ tons of WIP
 - Must comply with specified reporting requirements

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ARB Proposed Measure

Limited Exemptions

- Exemptions allowed if owner or operator:
 - Complies with surface methane emission limit (200 ppm);
 - Has a landfill gas heat input capacity of < 2.5 MMBtu/hr; and
 - Meets specified reporting requirements

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ARB Proposed Control Measure

Proposed Requirements

- Prepare a Design Plan subject to approval (12 months)
- Flexible control options including enclosed flares and landfill gas-to-energy facilities
- Open flares are not allowed
- Install and operate the gas collection and control system within 18-months of Design Plan approval

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ARB Proposed Measure

Proposed Requirements (cont.)

- Performance Based Standards
 - 200 ppm instantaneous surface methane emission limit
 - 200 ppm component leak limit
 - Higher emission control device efficiencies

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ARB Proposed Measure

Monitoring Requirements

- Monthly surface emission measurements reduced to quarterly (if in compliance) for active landfills
- Monthly surface emission measurements reduced to quarterly or annual (if in compliance) for inactive or closed landfills
- More stringent landfill surface walking grid pattern

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Key Issues for Upcoming Stakeholder Meeting

- Surface Monitoring Requirements
- Surface Methane Emission Limit
- Recordkeeping and Reporting Requirements
- Enforcement Agency

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Next Steps

- Continue to work with stakeholders
- Landfill Technical Review Workgroup meetings
- Late September 2008 – Staff Report available for a 45-day formal public review and comment period
- November 2008 – 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?

