



## Presentation Overview

- Current Surface Monitoring Requirements
- Proposed Surface Monitoring Requirements
- Discussion Items
- Timeline
- Questions

## Current Surface Monitoring Requirements

### Subsection (e)(3) – Surface Methane Emission Limit:

- Except as provided in subsections (e)(6) and (e)(8), no location of the landfill surface shall exceed a methane concentration of 200 ppmv, other than non-repeatable, momentary readings.

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## Current Surface Monitoring Requirements

- 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

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## Proposed Surface Monitoring Requirements

### Surface Monitoring Requirements Proposed by ARB Staff on 7/11/08

- 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

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## Proposed Surface Monitoring Requirements

### Surface Monitoring Requirements Proposed by ARB Staff on 7/11/08 (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
- Additional surface sampling requirements (see Slide 4)

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## Proposed Surface Monitoring Requirements

### Subsection (e)(3) – Proposal #1

- **Option 1** - Maintain surface levels at 200 ppmv by instantaneous monitoring, or
- **Option 2** – Maintain surface levels at 500 ppmv by instantaneous monitoring and demonstrate through monthly well monitoring a methane concentration of no more than 55 percent methane at each interior wellhead, or
- **Option 3** – Maintain surface levels at 500 ppmv by instantaneous surface sampling and 50 ppmv by integrated surface monitoring

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## Proposed Surface Monitoring Requirements

### Subsection (e)(3) – Proposal #2

- Maintain surface levels at 200 ppmv by instantaneous monitoring
  - If the surface methane limit is exceeded corrective action must be taken to remediate the surface leak as specified in subsection (f)(1)
  - If the surface leak can not be remediated within a specified time period, the landfill owner or operator must explain why surface levels can not be maintained and request an alternative compliance option pursuant to (e)(9)

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## Proposed Surface Monitoring Requirements

### Subsection (e)(3) – Proposal #3

- Landfill owner or operator shall meet one of the following surface emissions performance standards:
  - Maintain surface levels at 500 ppmv by instantaneous monitoring and demonstrate through monthly well monitoring a methane concentration of no more than 55 percent methane at each interior wellhead, or
  - Maintain surface levels at 500 ppmv by instantaneous surface sampling and 50 ppmv by integrated surface monitoring

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## Proposed Surface Monitoring Requirements

### Subsection (e)(3) – Proposal #3 (Cont.)

- Surface methane concentration measurements exceeding 200 ppmv would be recorded for data collection purposes with 500 ppmv being the limit that would trigger compliance if exceeded
- Operate each wellhead under negative pressure, except under certain conditions
- Additional surface monitoring requirements (see Slide 4)

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## ARB Proposed Control Measure

### Discussion Items

- (b) – Cutoff date for existing landfills affected by the proposed measure
- (e)(1)(C) – Time required for installing GCCS at closed or inactive landfills
- (g)(2)(C) – Synchronizing reporting requirements
- (e)(6) – Shutdown and maintenance of GCCS

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## Timeline

- Technical workgroup meeting as needed
- Public Workshop – October 2008
- 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?

