Understanding AB32: Intent and Impact

Municipal Landfills

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AB 32 Implementation

- 2007: Publish list of early actions
- 2008: Mandatory reporting
- 2009: Publish scoping plan
- 2010: Early action regulations enforceable (01/01/2010)
- 2011: Most GHG limits and measures operative
- 2012: GHG limits and measures adopted
- 2020: Reduce GHG emissions to 1990 levels
- Identification/implementation of further emission reduction strategies
Early Action - Landfills:

- **Proposed Early Action:**
  - Address uncontrolled landfills (6% of waste in place in California)
  - Increased methane capture at active landfills
Landfill Methane Reduction Measure

- May be a separate program from EPA NSPS and local district regulations
- Will be significant additional effort (as proposed)
  - Proposed lower 500 ppm to 200 ppm threshold
  - More extensive surface monitoring
  - Monthly site inspections
  - Proposed leak check program
  - Proposed new reporting requirements
Landfill methane reduction rule

- Industry Proposal (flexibility)
  - Keep 200 ppm limit, or
  - 500 ppm plus monthly well monitoring
  - Program that mirrors SCAQMD Rule 1150.1
    - 500 ppm Instantaneous and 50 ppm Integrated

- Industry fighting hard on this one, but something will happen
  - Early action
  - Very political
  - Mary Nichols!
Monitoring for Surface LFG
Puente Hills Landfill
Distribution of Instantaneous Surface Gas Concentrations
for Entire Year 2006

Frequency of Occurrence

Range of Concentrations

0 to <10 10 to <50 50 to <100 100 to <200 200 to <500 500 or more

92.33% 6.62% 0.65% 0.23% 0.11% 0.07%
CARB Landfill Methane Reduction Measure - Cost

- At one site, $4,800 per acre cost of 500 ppm to 200 ppm
- Most issues will be cover integrity (cracks in the surface)
- Significant increase in resources to tackle a small problem
CARB Landfill Methane Reduction Measure - Impacts

- Potential Significant Air Intrusion
- Potential Underground Fires
- Reduced Methane Concentrations to Support LFG to Energy Projects.
SOURCE OF CALIFORNIA GHG EMISSIONS

*expressed as CO$_2$ equiv.
### Evolution of CA State Landfill GHG Inventory

<table>
<thead>
<tr>
<th>Inventory</th>
<th>GHG (MMTCO$_2$eq/% Inventory)</th>
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</thead>
<tbody>
<tr>
<td>2002 CEC</td>
<td>20.7 (6.0%)</td>
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<tr>
<td>2005 CCAT</td>
<td>20.7 (4.3%)</td>
</tr>
<tr>
<td>2005 CEC</td>
<td>9.9 (2.1%)</td>
</tr>
<tr>
<td>2006 CEC</td>
<td>8.0 (1.7%)</td>
</tr>
<tr>
<td>2007 CARB</td>
<td>5.64 (1.4%)</td>
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</tbody>
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CA Landfill Industry GHG Emissions (CARB)
Scoping Plan – Phase II regulation

Push for recycling, composting, organic diversion, under the umbrella of GHG control will impact landfills

– Local Government and Community Reduction Requirements (*requirements of the Scoping Plan*)
Thank You and Questions