

Landfills and the Mandatory Greenhouse Gas Reporting Rule

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Who is Required to Report?

- “Large” greenhouse gas (GHG) emitters
- 25,000 metric tonnes of carbon dioxide equivalent
- Stationary fuel combustion (Subpart C)
- Electric Generating Units subject to Acid Rain Program under Subpart D
- Specific industries under Subparts E-PP

Affected Landfills

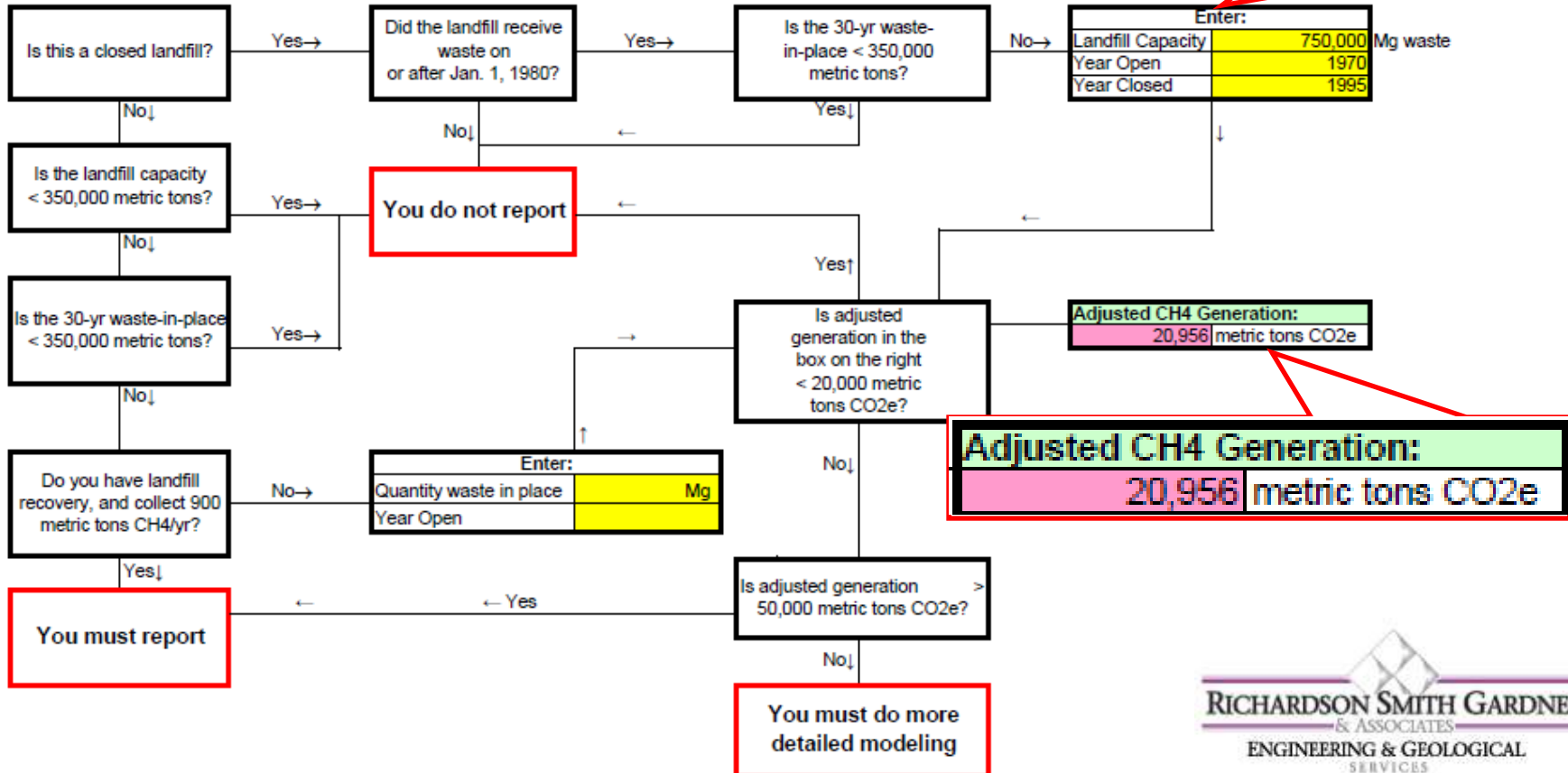
- Subpart HH – Municipal Solid Waste Landfills
- Accepted waste on or after 1/1/1980
- Closed as well as open MSW landfills

NOTE: C&Ds may be added in the future

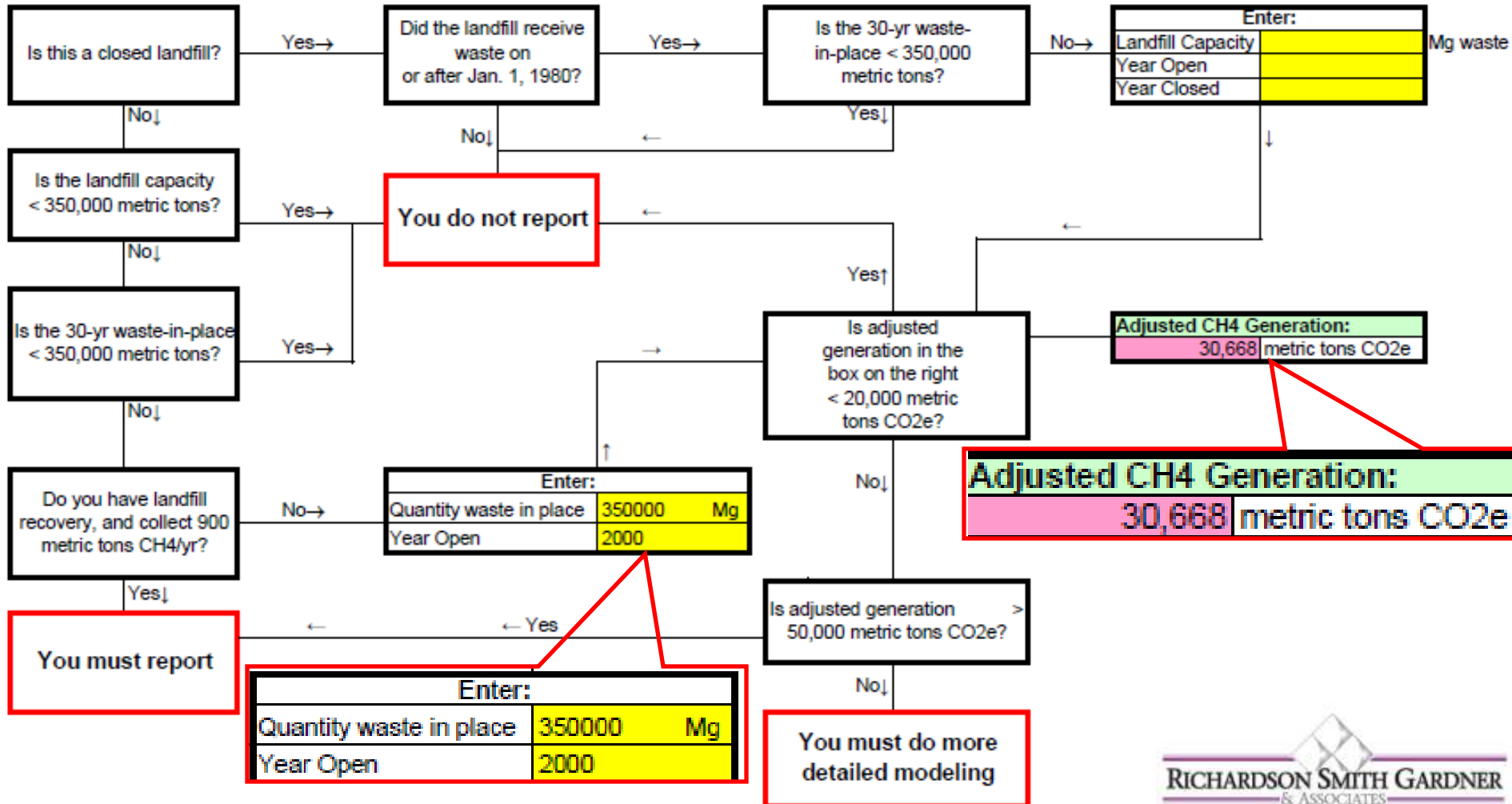
Applicability Tool – Closed Landfill

MSW Landfill Utility
Use this utility to help assess if your facility must report under the Mandatory Greenhouse Gas Reporting Rule

Enter:	
Landfill Capacity	750,000 Mg waste
Year Open	1970
Year Closed	1995



Applicability Tool – Open Landfill



Passive Flares \neq Collection/Control



Subpart C Reporting

- If reporting under Subpart HH
- Report Subpart C combustion devices
- Unless exempt:
 - Portable equipment
 - LFG flares
 - Emergency generators
 - Non-Title IV/Non-40 CFR 75 generators

Waste Acceptance Rates

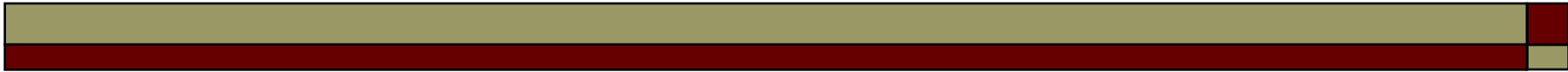
- First year of waste acceptance
 - If unknown, assume 50 years prior to reporting date
- Annual waste acceptance
 - If unknown, use one of three methods
 - Assume prior rates equal first recorded year
 - Use population data
 - Calculate average rate (Capacity / Age)
 - NIST Handbook 44 Compliant scales starting 2010

Landfill Gas Flow

- Measured continuously
- 5% accuracy required
- EPA approved thermal mass meters
 - Standardize flow using 60°F/14.7 psi
 - Specify when ordering or during calibration

OR

- Measure LFG temperature and pressure weekly



Landfill Gas Methane Content

- Measured continuously OR weekly
- 5% accuracy required
- EPA approved NDIR meters
 - Portable handhelds or in-line analyzers

NOTE: Correct for moisture content

- Typically with in-line analyzers measuring “dry” gas
- Relative humidity measurement of LFG approved by EPA

Default Values/Factors

□ Destruction Efficiency

- If Landfill owns destruction device, lower of:
 - Manufacture rating, or
 - 99%
- If Landfill DOES NOT own destruction device:
 - Assume 100%

□ Collection Efficiency based on cover type

- Daily cover = 60%
- Intermediate cover = 75%
- Final cover with geomembrane = 95%

□ 10% oxidation (uncaptured methane)

Deadlines

- 1/28/2010 – Request extended BMM deadline
- 3/31/2010 – Implement compliant metering/calibration practices
- 4/1/2010 – Implement GHG Monitoring Plan
- 1/30/2011 – Submit designation to EPA of person(s) responsible for reporting
- 3/31/2011 – Submit 2010 GHG report

Clarifications from EPA

- C&D Likely to report in the future
- Passive vent flares are not reported
- Standard temperature = 60°F
- Relative humidity in lieu of moisture content
- 10% methane oxidation applied to all fugitive LFG, regardless of cover type

Questions?

For additional info:

<http://www.epa.gov/climatechange/emissions/subpart/hh.html>

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