

## **Updating Municipal Solid Waste Landfill Requirements**

### **Regulation Outline Proposal Under Consideration for Stakeholder Input**

**MDE staff 9/21/2020**

#### **I. Adopt New Federal NSPS/EG Requirements:**

- The federal regulation lowers the non-methane organic compounds (NMOCs) emission threshold limit, which triggers the need for a landfill gas (LFG) collection and control system (GCCS), from 50 Mg/year to 34 Mg/year for all landfills.
- The federal regulation requires landfill owners and operators to monitor temperature and pressure at wellheads monthly and perform corrective action for elevated temperature or positive pressure.
- The federal regulation requires penetrations to the landfill cover to be monitored during each quarterly surface emission monitoring (SEM) event and latitude and longitude to be recorded for each location of exceedance within +/- 3 meters.
- The federal regulation revises the startup, shutdown, and malfunction (SSM) provisions and adds work practice standards and recordkeeping and reporting provisions.
- The federal regulation updates the definition for LFG treatment, clarifies the uses for treated landfill gas, and requires regulated landfills to develop a treatment system monitoring plan.
- The federal regulation includes new requirements for landfills that either modify or expand their GCCS.
- The federal regulation includes requirements for submitting electronic copies of performance test results, NMOC emission rate reports and annual compliance reports
- The federal regulation adds a new Tier 4 test method to assess whether a GCCS is required once NMOC emissions exceed 34 mg/year.

#### **II. Retain State Requirements (COMAR 26.11.19.20):**

- The state regulation requires MSW landfills submit a request to the Department for removal of gas control and collection equipment if the landfill is inactive; the GCCS has operated for at least 15 years; and the MSW landfill has demonstrated the annual uncontrolled NMOC emissions are below and will remain below 25 tons/year (23 Mg/year).

#### **III. Additional Requirements Under Consideration:**

- Installation of new gas collection and control systems on landfills without controls or upgrading current control systems.
- Lowering the applicability size threshold (design capacity) for MSW landfills.
- Additional requirements for MSW landfills that either modify or expand their GCCS.
- Component fugitive detection testing on combustion equipment and piping (LDAR) for energy generation.
- Implementing thorough maintenance schedules for a GCCS (instruments, wells, piping, blower/flare, etc.).
- Requiring surface emissions monitoring and reporting at all MSW landfills.
- Adding LFG utilization facilities to an existing GCCS for energy generation (electricity, heating, natural gas).
- Development of specific requirements for leak detection and repair (LDAR).
- Improving operations at MSW landfills by increasing the landfill gas combustion capacity (e.g. using a larger flare) or improving destruction efficiency.
- Development of specific procedures and requirements for recordkeeping and data reporting.
- Design optimization and construction for new or reconstructed landfills.
- Revisions to closure/post closure practices.
- Utilize biocovers at landfills

Landfills can participate in the Maryland CO<sub>2</sub> trading program, with methane value converted to CO<sub>2</sub>e