

LANDFILL GAS COLLECTION, CONTROL, & MONITORING REQUIREMENTS

Colorado Regulation 31 establishes enhanced requirements for landfill gas (LFG) collection, control, monitoring, and reporting at municipal solid waste landfills in Colorado. The regulation is designed to reduce methane and volatile organic compound (VOC) emissions, strengthen operational accountability, and improve early detection of surface emissions.

APPLICABILITY

Regulation 31 applies to active and closed municipal solid waste landfills that:

- Have accepted waste on or after November 8, 1987, and
- Are subject to state or federal landfill gas control requirements

Landfills may be subject to Regulation 31 regardless of whether they are already regulated under NSPS or EG landfill rules.

KEY REQUIREMENTS

1. ENHANCED GAS COLLECTION AND CONTROL

Landfills must:

- Design, operate, and maintain a comprehensive landfill gas collection and control system (GCCS)
- Address gas migration, wellfield performance, and system coverage
- Maintain effective control of collected landfill gas through approved control devices (e.g., flares, energy recovery systems)

2. SURFACE EMISSION MONITORING (SEM)

Regulation 31 strengthens surface emissions requirements by:

- Lowering allowable surface methane concentration thresholds
- Requiring more frequent and detailed SEM surveys
- Mandating timely corrective actions when exceedances are detected

Landfills must document monitoring results and corrective measures

3. CORRECTIVE ACTION & RESPONSE TIMELINES

Regulation 31 strengthens surface emissions requirements by:

- Lowering allowable surface methane concentration thresholds
- Requiring more frequent and detailed SEM surveys
- Mandating timely corrective actions when exceedances are detected

Landfills must document monitoring results and corrective measures

4. REPORTING & RECORDKEEPING

Operators must:

- Maintain detailed operational records, including monitoring data and system performance
- Submit reports to the Colorado Department of Public Health and Environment (CDPHE) as required
- Retain records for regulatory review and compliance verification

5. COMPLIANCE PLANS & DEADLINES

Regulation 31 establishes:

- Requirements for compliance plans outlining how the landfill will meet regulation standards
- Ongoing performance expectations beyond initial compliance

DEADLINES

Based on landfill size, status, and operational conditions

Active Municipal Solid Waste (MSW) landfills must report waste and methane levels and may need to install and operate methane controls

- Reporting:
 - Submit initial waste-in-place (WIP) report by June 30, 2026, then annually by March 31
 - If WIP is 450,000 tons or more, submit a methane generation rate report (initially by June 30, 2026).
- Methane Controls:
 - If methane generation exceeds regulatory thresholds, the landfill must either:
 - Install and operate a Gas Collection and Control System (GCCS), or
 - Follow approved monitoring pathways (Tier 2 testing or surface emissions monitoring)
 - Design plans for new GCCS are due within 12 months of triggering requirements
 - GCCS installation must occur within 18 months after design plan deadline
- Open Flares:
 - All must be phased out by January 1, 2029, unless a specific, approved exemption applies
- Monitoring & Testing:
 - Conduct quarterly surface emissions monitoring and component leak inspections (starting no later than April 1, 2027 if GCCS already exists)
 - Perform performance testing of gas control devices and submit reports
- Cover Requirements:
 - New intermediate cover installed on or after July 1, 2026 must use a biocover or thicker earthen cover
 - A cover integrity program is required

Inactive MSW landfills (no waste accepted for over one year)

- Submit a final WIP report if applicable
- Methane reporting may end if emissions are below thresholds
- Monitoring may be reduced or phased out after clean monitoring results
- GCCS requirements apply only if methane thresholds are exceeded

Closed MSW landfills focus on long-term methane management and eventual system shutdown

- Submit a closure notification within 30 days of stopping waste acceptance
- Methane reporting may end if emissions are low and closure is documented
- If a GCCS is required, installation timelines are longer (24 months)
- After 15 years of post-closure GCCS operation, landfills may apply to shut down controls and transition to biofilters, if all criteria are met