MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

Updates on Part 115 Implementation

Rhonda Oyer, Solid Waste Section Manager

Michigan Safety Conference

April 16, 2025

Solid Waste Legislation

- Updated Materials Management Planning process.
- Increased education and awareness of disposal options and techniques.
- Provide standards for recycling and composting facilities.
- Updated landfill requirements-LFG monitoring.

Changes that affect permitting and licensing

- Application fees were increased.
- Financial Assurance requirements were increased.
- Type II landfills don't need a separate license for PTFs or solidification - if they meet certain requirements 11512(22).
- Used to be a separate permit and license-TS or PP, now combined as PTF in a single permit/license.
- New licenses will have a condition written in that essentially states that even though the license is for both activities, the facility cannot operate contrary to a county plan, an approved construction permit, or an approved operation plan.
- No new "green-field" type II landfills unless requested by the county 11509(9).
- No more credit for early applications.
- New Materials Management Plans (MMPs).
- New technical requirements (landfill gas).

Financial Assurance

- Align with third-party costs to the state.
- Require from general permit facilities.
- Broaden availability of the financial test.
- Enable use of state's perpetual care account for facilities with a general permit.
- Allow for landfill care fund and risk pooling.
- Program Contact: Katriena Hurley; HurleyK1@michigan.gov.

Materials Management Planning

- Requires all counties to have an MMP.
- Timelines established in law for action.
- EGLE - Initiated the Planning process on **January 8, 2024.**
- Counties had 6 months to file Notice of Intent (NOI)-**July 6, 2024.**
- MMP is the tool that connects the management of all materials; facility development; mechanisms; etc. within a planning area.
- Focus on utilization capacity – not disposal capacity;
- Includes:
  - Measurable goals and objectives;
  - Add siting and development of materials utilization facilities to planning process;
  - Benchmark recycling standards;
  - Promote regional planning and provides for more local control (zoning);
  - No import/export requirements;
  - Incorporates ways to increase recycling access, participation.

Materials Management Plans

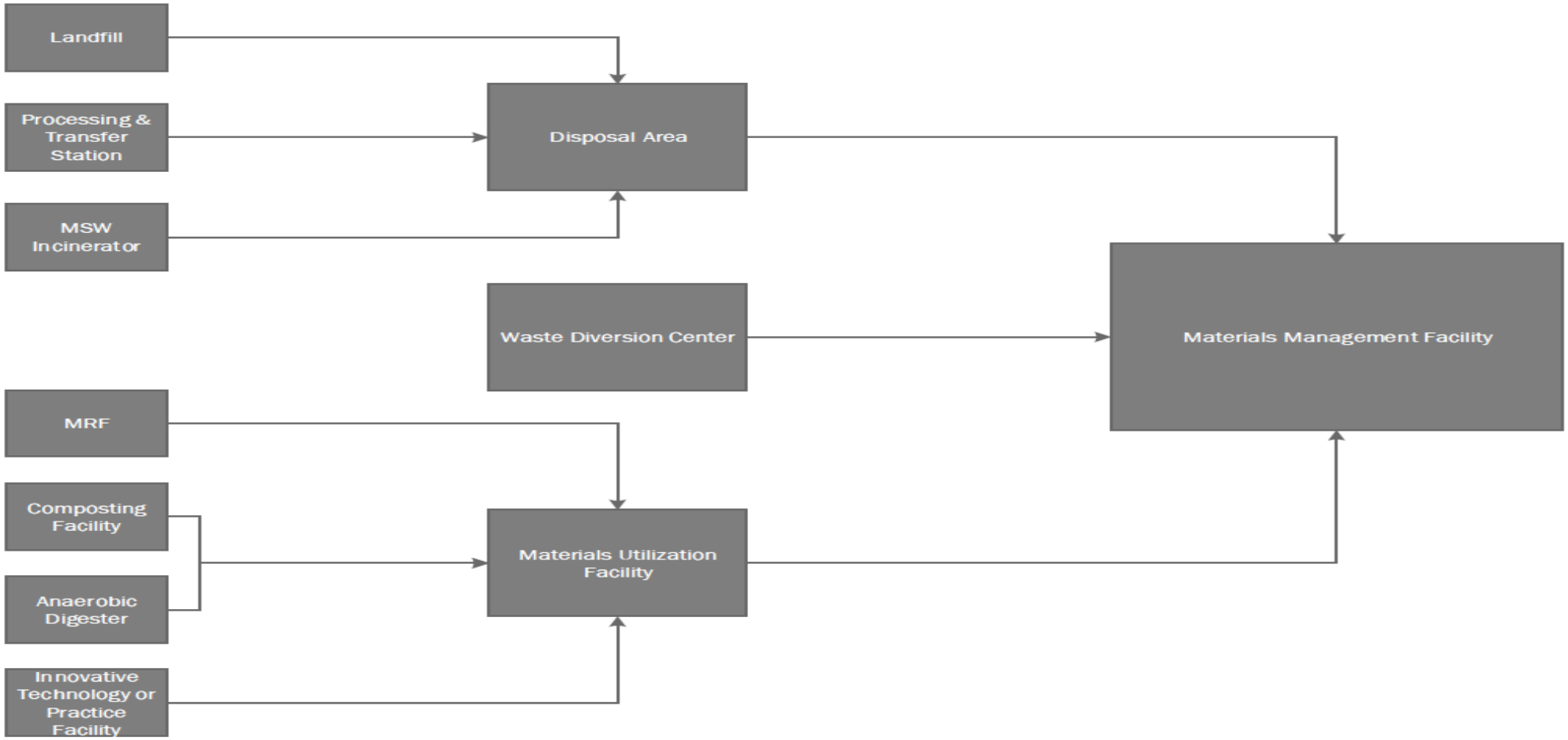
- 10:15 am – 11:15 a.m.
- Part 115 Update – County Materials Management Plans (Intermediate).
- Dr. Vimala Anishetty, Vice President, Fishbeck.

Facilities Regulated

- Solid Waste Landfills
- Solid Waste Processing and Transfer Facilities*
- Municipal Solid Waste Incinerators

- PLUS
- Materials Recovery Facilities
- Compost Facilities*
- Anaerobic Digester Facilities
- Innovative Technology Facilities
- Waste Diversion Facilities

NEW FACILITY AUTHORIZATIONS



AUTHORIZATION PROGRAMS

- Facilities create accounts and report online

Beneficial Use	Solid Waste
Diverted Materials	Source Separated and Recyclable Materials
Electronics	Scrap Tire
Organics	Voluntary Reporting

Visit Michigan.gov/EGLEM3 and click Re-TRAC Authorizations Program for updated information.

Materials Utilization Facility Oversight

MATERIALS MANAGEMENT DIVISION DISTRICT STAFF:

- Verify compliance with local zoning.
- Coordinate with other EGLE Divisions.
- Verify compliance with operational standards.
- Conduct inspections before authorization and during active life.
- Serve as primary point of contact.

Authorization Program Contacts

- Waste Diversion Centers-Steve Noble, NobleS4@Michigan.gov
- Composting Facilities-Phil Roycraft, RoycraftP@Michigan.gov
- Anaerobic Digestors-Phil Roycraft, RoycraftP@Michigan.gov
- Materials Recovery Facilities-Rhonda Oyer, OyerR@Michigan.gov
- Innovative Technology Facilities-Christine Matlock, MatlockC2@Michigan.gov
- Solid Waste Processing and Transfer Facilities-Jim Arduin, ArduinJ@Michigan.gov

Importance of LFG Migration Monitoring

- Decomposition gases (LFG) can travel laterally long distances in the vadose zone from source to discharge.
- LFG contains 45% - 65% methane. Methane has a lower explosive limit of 5% by volume in air.
- Man-made structures and houses are likely to have both areas susceptible to accumulation and potential ignition sources.
- Although production of LFG generally reaches a peak in five to seven years, a landfill can continue to produce gases for more than 50 years.

LFG Migration Monitoring Plans

- Must include at least one probe on each side of the facility. Consider maximum spacing of 500’ depending on geologic uncertainties, receptors, and barriers to LFG migration.
- The plan must include at least quarterly monitoring of LFG migration probes at sites.
- The probes need to be screened deep enough to detect migration (10 below max waste depth or to water table). Barhole probes and/or surface monitoring outside of solid waste boundary are not reliable for migration monitoring.
- The wells should include a surface seal and be fully screened through the remainder of the vadose zone. Discreet screened intervals should only be considered in rare circumstances.
- Migration probes are designed to be very conservative. They can detect issues that are very small.
- We want every site that detects something to quickly assess how big the issue is and take corrective actions well prior to ever causing an offsite issue (explosion etc.).

What to do if exceedances of the LEL are noted

- District staff should discuss with their facilities notification expectations. (i.e., Notify District staff asap if there is a detection).
- Re-monitor more than once to ensure that you are capturing an accurate assessment of migration potential.
- If LEL exceedances found, follow Rule 433(4).
- Notify District RRD Incident Management Specialist and County Local Emergency Planning Coordinator (see Michigan SARA Title III Local Emergency Planning Committee (LEPC) Contact List on RRD website).
- Require regular reassessment to determine whether LFG Migration Remediation Plan is working.

Mitigation Strategies

- Out of waste wells hooked to site vacuum. Control of these wells is tough since most sites with active collection have strict oxygen requirements for end user.
- Separate soil vacuum extraction (SVE) systems with trenches or wells.
- Passive systems including trenches to the water table or with passive venting using well cap turbine.
- Hooking gas probe to a passive well cap turbine.
- Other self-powered ventilation.

EGLE Resources

- LFG Specialist-Tim Unseld; unseldt@michigan.gov.
- District RRD Incident Management Specialist. Can access Emergency Funding quickly if needed.
- Landtech GEM meter for gas probe monitoring.
- Landtech SEM 5000 meter for surface emission monitoring.

Surface Emission Monitoring: Who?

- All Type II Landfills shall develop a surface monitoring design plan and submit it to EGLE for approval.

- This includes sites all sites including sites which currently have a passive landfill gas collection system.

Surface Emission Monitoring: What?

- The Surface Emission Monitoring Plan is to monitor Methane emissions from landfills.

- The concentration of fugitive emissions of Methane is utilized as a performance standard for when additional efforts are required to collect and control landfill gas.

Surface Emission Monitoring: When?

- Sites which are required to perform wellhead monitoring pursuant to 40 CFR Part 60 (NSPS XXX) were required to submit plans by June 29, 2023.
- Sites that are expanding via a construction permit are required to submit surface emission monitoring plans with permit application.
- All other sites are required to submit plans by March 29, 2024.

Surface Emission Monitoring: Where?

- 30 m (100 foot) traverse. Serpentine pattern is most efficient.
- Include perimeter of landfill cells with waste. Traverse inside of perimeter.
- Visual Indicators of migration (distressed vegetation, bare soils, cracks, seeps).
- All cover penetrations must be monitored. This includes penetrations of daily, interim and final cover.
- Must include cells within 180 days of first waste acceptance.

Surface Emission Monitoring: Why?

- The detection of uncorrected fugitive landfill gas emissions is a performance standard for when a system must be upgraded to better collect landfill gas to prevent uncontrolled excess methane emission and to prevent future nuisance conditions.

- For passive collection sites this could include installing an active gas collection system to all future cells and to correct the fugitive emissions.

- For sites with current active gas collection this could include meeting the design standards of Section 11512b for all future cells and the area(s)where fugitive emissions are located.

Surface Emission Monitoring: Why? (cont.)

- If the exceedance can not be cleared up within 1 calendar quarter the system must be expanded to cover the area or a new system must be designed if no current system is installed.
- Results must be submitted to EGLE upon request.

Surface Emission Monitoring: How?

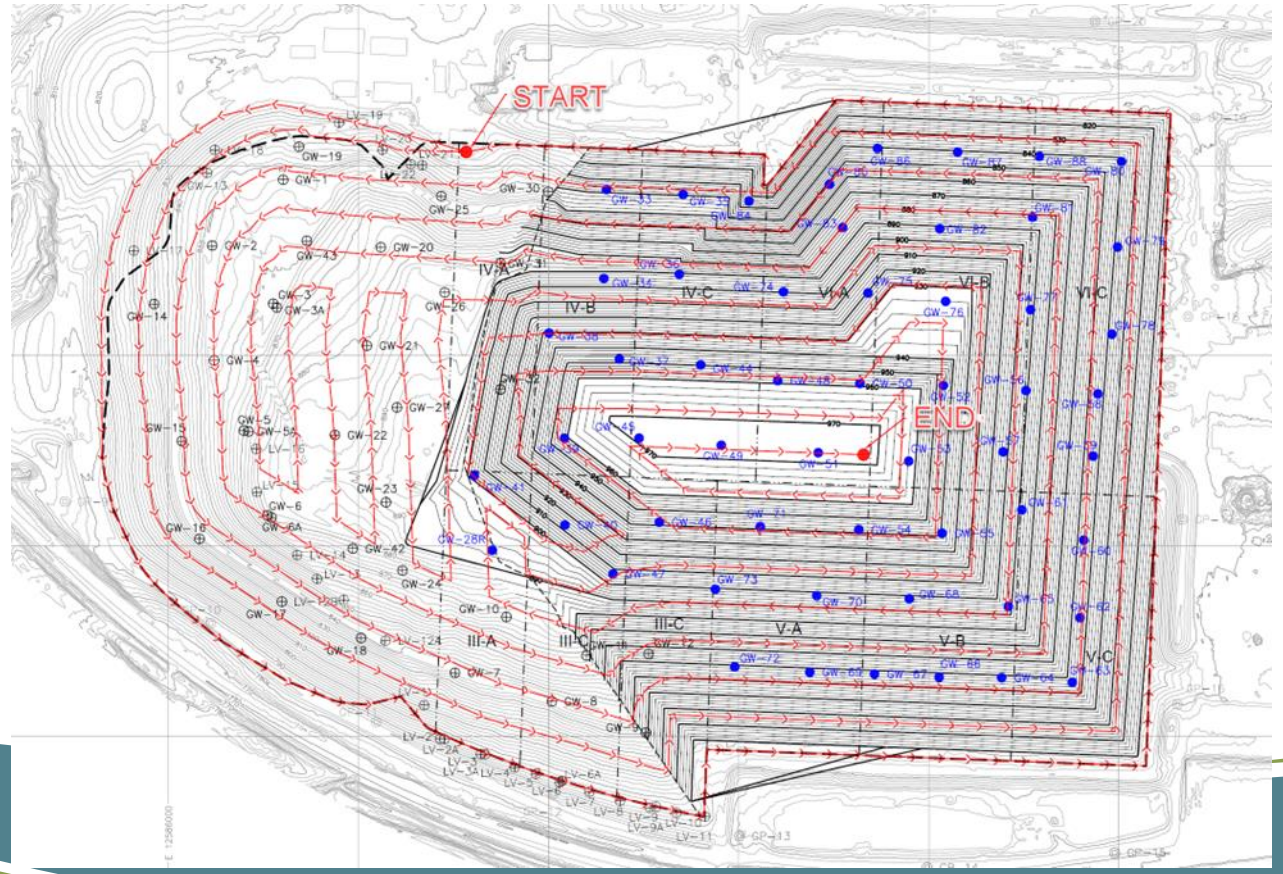
- A portable analyzer that meets the instrument specifications provided in section 6 of EPA Method 21 of appendix A–7 of 40 CFR part 60, except that “methane” replaces all references to “VOC.”
- The two most commonly utilized portable analyzers utilized are the LandTec SEM 5000 and the Elkins Earthworks Irwin. They both utilize tunable diode laser absorption spectroscopy.

SEM 5000

IRwin

Surface Emission Monitoring: How?

- A pattern that traversers the landfill at no more than 30 meter (100 foot) intervals.



Surface Emission Monitoring: How?

- In addition to the traverse pattern the quarterly surface emission monitoring event must include monitoring where visual observations indicate elevated landfill gas (distressed vegetation, cracks, seeps). Monitoring is also required at all cover penetrations of daily, interim, and final cover.

Surface Emission Monitoring: How?

- In addition to the tunable laser diode meter, EGLE can approve alternative EPA methodologies. At this point one alternative is approved (SnifferDrone^{tm}).
- That conditional approval has several limitations, such as having to check penetrations manually and manually checking all points with greater than 200 ppm readings manually.

- As technology improves, EGLE wants to allow the most effective, nimble approach to surface emission monitoring.

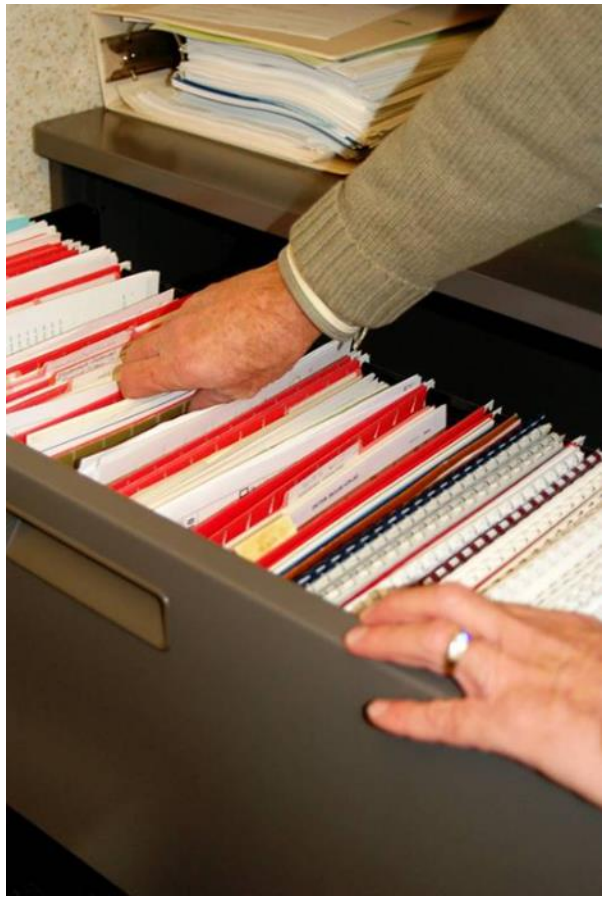
Surface Emission Monitoring: How?

- EGLE may approve a surface monitoring plan that excludes dangerous areas from surface monitoring.
- The intent of the dangerous area exemption is to ensure technician safety. It is NOT to exclude large areas of the site from monitoring. Examples of dangerous areas would be busy site roads, areas of heavy truck or equipment traffic, etc.
- Specific areas which are excluded should be documented in the quarterly monitoring report with a map and the justification reason for excluding the area.

Surface Emission Monitoring: How?

- Repair actions can be to repair cracks or areas of differential settlement, placement of less permeable cover materials, repair of ripped geomembrane, repair of seals around vertical penetrations, or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance.

Surface Emission Monitoring: How?



- EGLE will allow technicians to make safety decisions based on conditions at the time of monitoring instead of relying on a list of potential hazards.
- Specific areas excluded from monitoring must be documented in the quarterly monitoring report with a map with the justification for excluding the area.

Surface Emission Monitoring: How?

- If the re-monitoring of the location shows a second exceedance, additional corrective action must be taken, and the location must be monitored again within 10 days of the second exceedance.
- Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring, must be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 ppm above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month monitoring shows an exceedance, the 10-day corrective action re-monitoring cycle starts again.
- If the exceedance can not be cleared up within 1 calendar quarter the system must be expanded to cover the area or a new system must be designed if no current system is installed.
- Results must be submitted to EGLE upon request.

Other Implementation Activities

- Reviewing statute for clarity and addressing any issues or questions that arise.
- EGLE plans to update the Part 115 rules to reconcile the rules with changes in the statute. Considering other rules changes.
- Discussing CCR changes, Landfill gas requirements and clarifying Part 115 language changes.
- Obtained federal funding.
- Continued to timely issue landfill construction permits and operating licenses and manage financial assurance for facilities.

Questions?

- The statute http://www.legislature.mi.gov/documents/mcl/pdf/mcl-451-1994-ii-3-115.pdf.
- To submit questions about the Part 115 amendments and their implementation email: EGLE-MMD-SW@michigan.gov. EGLE is currently compiling a FAQ/guidance document for publication. Submitting questions to the mailbox will help EGLE keep track of the questions, and the answers provided. Chances are, if you have a Q, someone else has the same one.
- Information is available on the main EGLE Solid Waste Web Page https://www.michigan.gov/solid-waste.
- Materials Management Facilities page-Authorizations Chart.
- Recycling resources are available at www.michigan.gov/mirecycles.

- Materials Management In Michigan – what EGLE is doing to support the effort can be found at: https://www.michigan.gov/egle/about/organization/materials-management/materials-management-in-Michigan.
- Look for Part 115 GovDelivery messages. Sign up on EGLE's Gov Delivery site and subscribe to Waste & Materials Management – Recycling Updates; Materials Management News and Info; Solid Waste Law Amendments and Materials Management Planning
- Recordings of meetings that were held in conjunction with the Michigan Association of Regions, the Michigan Recycling Coalition, and the Solid Waste Association of North America where you can learn even more about the changes to Part 115. Upcoming trainings and engagement opportunities are also listed here.

Rhonda Oyer, Solid Waste
Section Manager

517-897-1395;
OyerR@Michigan.gov

Michigan Department of Environment, Great Lakes, and Energy