



MICHIGAN DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY

# Radioactive Materials Regulations

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# TENORM

- Technologically Enhanced Naturally Occurring Radioactive Material (TENORM)
  - Acts passed in 2018 formalized TENORM disposal laws, which were previously a department policy.
  - Department policy dates to the mid 1990s and followed the Michigan administrative rules process.
  - Established legal definition for TENORM.
  - [PA 688 of 2018](#) and [PA 689 of 2018](#)

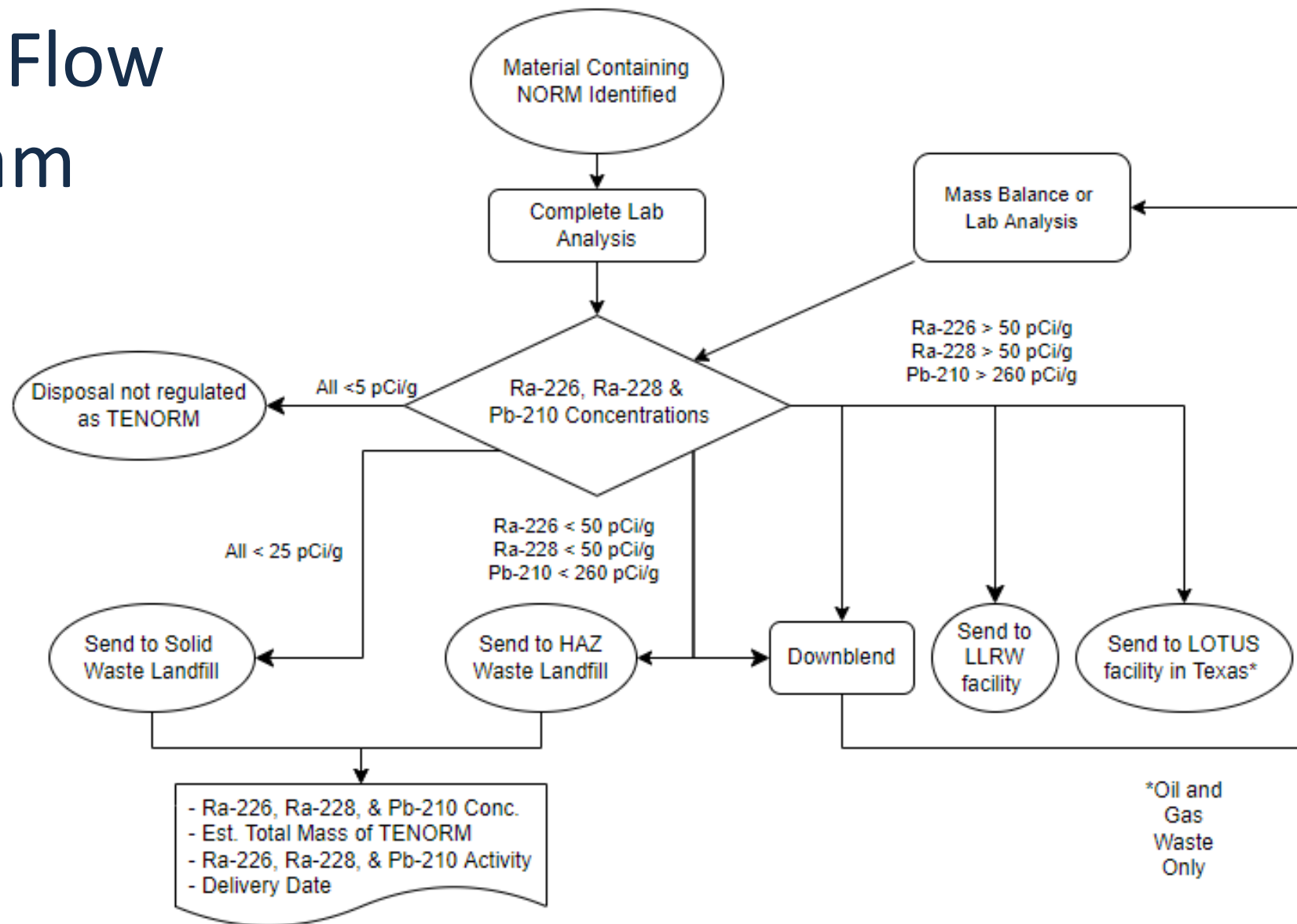
# PA 688 & PA 689 Highlights

- [PA688](#) (Part 111 & Part 115)
  - Sets disposal concentration limits
  - Defines reporting requirements for generators
  - Conditional employee and environmental monitoring requirements for increased concentration disposal
  - Requires monitoring and capping requirements for increased concentration disposal
  - Sets annual reporting requirement for operator's summary of TENORM collection
- [PA689](#)
  - Set tipping fee for TENORM waste at \$5/ton
  - Only applies to hazardous waste landfills

# TENORM and Radioactive Materials Rules

- [Guidelines for Cleanup and Disposal of Sites Contaminated with TENORM Contaminated Soils](#)
- [Michigan's Ionizing Radiation Rules for Radioactive Materials](#)
  - Promulgated under the authority granted under the public health code [Act 368 of 1978 \(Part 135\)](#)
  - Existed in some form prior to Act 368, since the mid 1940's
  - Do not dually regulate NRC materials. Michigan is a non-agreement state.

# Disposal Flow Diagram



Suggested Disposal Diagram for Michigan Feb-2022

# Other applicable State Laws

- No additional transportation requirements outside of NRC standard notifications for HRCQ
- MI LLRW Act ([Act 204 of 1987](#))
  - Michigan never sited an LLRW facility.
  - Not currently part of an LLRW compact.
  - Only remaining piece is annual LLRW survey.
- LLRW is explicitly prohibited in solid waste landfills. ([MCL 324.11514](#))
- Hazardous waste landfills also restrict disposal of LLRW to low-level radioactive waste facilities ([R 299.9823](#)).
- [Act 113 of 1978](#) further codified the requirements for LLRW by reference.
  - This Act also restricts the movement of spent nuclear fuel.
  - Caveat, radioactive waste is not defined in MCL Chapter 325.

# DOT Special Permits

- Granted authority to EGLE RPS by the US DOT
- [DOT SP 10656 – Scrap Loads](#)
- [DOT SP 11406 – Waste Loads](#)
- One way permit restrictions
  - Rail or Road
  - Must be shortest route to location
  - Can be back to the originator, or intermediate location for identification purposes
  - Allows temporary exemption from certain DOT requirements for carriers
  - Radiation cannot exceed 50 mrem/h at external surface or 2 mrem/h in any occupied space (Cab)

# Contact

- For assistance with Radioactive Materials or DOT permits
  - EGLE Radiological Protection Section –RAM Unit
    - [RadioactiveMaterial@michigan.gov](mailto:RadioactiveMaterial@michigan.gov)
    - 517-284-6581
  - Jay Paquette – RAM Unit Supervisor
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