

Attachment 3
Overview of Michigan Land Application Program

Part 1: Conceptual framework for beneficial reuse programs.

Program Structure:

Choice of program structure needs to be a balancing act between the burden on the agency (prescriptive setting of standards and rule-making or a more complicated review/approval scheme) and the burden on industry to provide information/justification. Program structure options balance certainty and flexibility:

Government:	Industry:
Waste exemptions	Self-implementing
Waste classification	Notification not required
Case-by-case approvals	Self-notification
General permits	Application/Petition
Hybrid (combination of any/all of the above)	Certification

Sampling and Testing:

How much responsibility should be placed on industry to prove their reuse activities do not harm human health and the environment? Options range from:

- None required. (Other than demonstrating that the waste is not a regulated hazardous waste, using either testing or knowledge)
- Pre-established – specify constituents, concentration limits, test methods, number of samples.
- Require industry to identify parameters and test methods. (This assumes that industry is sufficiently familiar with the constituents that they use and the regulatory requirements)
- Set risk standard and industry demonstrates that environmental impacts are acceptable. (Allowable risk standards can vary from program to program and from state to state)

Oversight:

What level of resources should or can be committed for on-going reviews of reuse projects? Need to establish whether to require:

- Reporting
- Periodic Testing
- Reauthorization
- Monitoring/Inspection/Enforcement
- Long term controls – deed restrictions

Other Considerations:

- Storage, handling, transportation – management plan items
- Public notice
- Demonstration that there is a market
- Demonstration that not simply an alternate method of disposal
- Speculative accumulation – recycle at least 75% during year.
- Written consent from landowner for agency access to inspect/sample

Part 2: Description of Michigan's Program

The program managed in Michigan is a hybrid consisting of waste exemptions (listed in statute or rule), waste classification (e.g., inert, low-hazard), case-by-case approvals, and general permits.

Michigan's sampling and testing requirements:

- none required for waste exemptions; (The exemptions were based on analytical information that the state already had)
- pre-established in rule – specifies constituents, concentration limits, test methods, number of samples, frequency; and/or
- require industry to identify and test, as appropriate.

Oversight in Michigan:

- Waste exemptions = notification required only on specific projects; no oversight
- Waste classification and reuse approvals = requirement to submit an annual report;
- Testing required not less than annually and required to be submitted to agency. However, typically this information is maintained on-site and not submitted to MDEQ.
- No requirement for inspection/on-site visits by agency. Typically will only visit site if there is/are complaints.
- No environmental monitoring required.

Michigan Petition Requirements:

Name, address, contact person, phone number

Description of material:

- Process description with schematic
- List of raw materials
- Amounts generated
- Description of current disposal location and proposed use or disposal method

- Concentration of contaminants; leaching potential
- Sampling description and analytical methods

Part 3: Sources of uncertainty in Michigan program

Waste Characterization:

Quality of Data

- No lab certification program
- No formal QA/QC required; no split sampling done to confirm

Adequacy of Testing

- Are samples representative?
- Are four samples adequate to characterize?
- Did sampling account for variability, process changes, temporal changes?
- Were the “correct” parameters tested for?
- Does the leach test used reflect reality? Is it a good predictor of what happens in the field?

Adequacy of Proposal

- Determination based on self evaluation/reporting by industry.
- Variable amount of information/level of detail received.
- How does the agency evaluate or account for the assimilative capacity of soil?
- What does “agronomic rate” mean?

Oversight:

Inspections

- Follow-up only if there are complaints (rarely).

Environmental Monitoring

- None required.
- No information available.

Program evaluation

- The program has remained virtually unchanged over the last 25+ years.
- During this time, we have not undertaken a systematic approach to: verifying assumptions underlying the program, performance of field investigations, determining whether reuse of materials has been done as approved, or evaluating materials were reused safely or caused harm.