

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE COMMUNICATION

OPERATIONAL MEMO 115-24

January 9, 2002

TO: All Waste Management Division Supervisors  
FROM: Jim Sygo, Chief, Waste Management Division  
SUBJECT: Solidification of Liquid Industrial Waste

**Purpose**

This memo describes how facilities that solidify liquid industrial waste, through mixing with other materials, for purposes of disposal are regulated under Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), and its promulgated rules.

**Definition of Processing**

Processing is defined as changing the physical character of solid waste by treatment or other methods in order to dispose of the waste or make it usable as a resource. R 299.4104(r). If the material being solidified is a solid waste **or** the solidifying agent is a solid waste, the act of solidification is considered processing under Part 115.

**Qualification as solid waste**

The NREPA defines **solid waste** as including municipal and industrial sludges, while excluding source and site separated materials. Section 11506(1).

The Part 115 rules define **sludge** as any semisolid industrial waste, as well as any solid or semisolid waste generated by a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or a pollution control facility. R 299.4105(e).

A solid waste sludge can exist as:

1. A semisolid, or
2. A liquid in the form of a Liquid Industrial Waste (LIW)<sup>1</sup> that contains both solid/semisolid and liquid fractions (hereafter "Phased Liquid Industrial Waste" or "PLIW"). Since it contains a solid waste, a PLIW is considered a solid waste

<sup>1</sup> A Liquid Industrial Waste is defined in Part 121, Liquid Industrial Wastes, of the NREPA, Section 12101(k).

even though it also contains a non-solid waste component (the liquid fraction).  
An LIW that does not contain a solid/semi-solid fraction is not a solid waste.<sup>2</sup>

**Site and source separated materials** are excluded from the definition of a solid waste only when the waste is separated for the purpose of conversion into raw materials or new products. Section 11505(7) and Section 11506(6).<sup>3</sup> A site or source separated material no longer qualifies for this exclusion when it is mixed with other material so that the waste material cannot be converted to raw materials or new products without processing to remove the other material. R 299.4119(2)(c). This would be the case if site or source separated materials were used to solidify material for disposal.<sup>4</sup>

One caveat needs to be provided to this conclusion: Certain site and source separated materials<sup>5</sup> are not considered solid waste if used to treat, stabilize, solidify, or otherwise treat waste in three instances: at a site of environmental contamination, at a facility licensed under Part 111, Hazardous Waste Management, of the NREPA, or at a facility licensed under Part 115. R 299.4119(3). Thus, such activities conducted at a site of environmental contamination or a Part 111 licensed facility are exempted from the Part 115 permit and license requirement. Such activities also do not need a Part 115 processing permit and license if conducted at another Part 115 licensed facility (e.g., landfill). In all cases, the solidifying agent is not subject to restrictions on waste movement in county solid waste plans.

### **Processing that Requires a Part 115 Permit and License**

A facility or operation that accepts solid waste sludge and solidifies any portion of that waste to make it disposable would be regulated as a solid waste processing facility. This is the case even though the sludge is solidified with a product.<sup>6</sup>

A facility or operation that accepts LIW and solidifies any portion of that waste with a solid waste, or a site or source separated material for the purpose of making that waste disposable, would also be regulated as a solid waste processing facility.<sup>7</sup>

---

<sup>2</sup> For reference in identifying an LIW that contains a solid, land application is considered under Part 115 if a liquid contains more than one percent solids and under Part 31, Water Resources Protection, of the NREPA if the liquid contains less than one percent solids.

<sup>3</sup> Sludges are not included in the definition of site or source separated materials and are not eligible for this exclusion, unless specifically approved under R 299.4119.

<sup>4</sup> Note that using site or source separated material as a solidifying agent to facilitate disposal remains processing under R 299.4014(r). There is an exemption from that definition for industrial operations that use, reuse, or reclaim industrial waste, source separated material, or site separated material to make a raw material or new product. R 299.4104(r)(iv). However, facilitating disposal of a material would not be making a raw material or new product. See R 299.4106a(h) and R 299.4106a(f).

<sup>5</sup> Cement kiln dust, lime kiln dust, water softening limes, sugar beet limes, coal flyash, wood ash, and other material approved by the Department of Environmental Quality.

<sup>6</sup> A product is considered to be a marketable consumer good that is not a defined solid waste.

<sup>7</sup> If the solidifying material is a solid waste, movement of that material must comply with county solid waste plan requirements.

If either of these circumstances exist, a Part 115 permit and license is required. The following chart depicts these conclusions. "Required" refers to a Part 115 permit and license.

		Solidifying Agent		
		Solid waste	Site or source separated material <sup>8</sup>	Product
Solidified Material	Semisolid solid waste	Required	Required	Required
	PLIW	Required	Required	Required
	Liquid fraction of a PLIW	Required	Required if for purposes of disposal	Not required
	LIW without a solid or semisolid fraction	Required	Required if for purposes of disposal	Not required

---

<sup>8</sup> Unless the provisions of R 299.4119(3) are met.