IDEM

Nonrule Policy Document

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Title: Polymerization As A Treatment Method For Fiberglass Wastestreams
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Citations Affected: 40 CFR 268.42, 40 CFR 262.34, 40 CFR 268.7 & 9
Brief Description of Subject Matter: IDEM is accepting polymerization (POLYM) as an acceptable method of treatment for high-TOC (total organic carbon) ignitable (D001) wastes resulting from commercial polymerization processes.

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Polymerization as a Treatment Method for Fiberglass Wastestreams

IDEM is accepting polymerization (POLYM) as an acceptable method of treatment for high-TOC (total organic carbon) ignitable (D001) wastes resulting from commercial polymerization processes.

Discussion: Polymerization processes convert deactivated waste into a chemically stable plastic in the same manner that commercial plastics were formed with the reagent which is being disposed of as a high-TOC D001 waste.

Representatives of the fiberglass industry have contacted IDEM and the EPA with concerns that the Land Disposal Rules found in 40 CFR 268.42 prohibit the practice of polymerizing excess polyester/styrene waste left over from the manufacture of modular shower stalls, recreational boats, and other fiberglass products. The prohibition was established in the 1990 Third Third rule under LDR. In these manufacturing processes polyester/styrene and MEK peroxide are the wastes of concern.

Waste polyester/styrene monomers and MEK peroxide are commonly disposed of by reacting small quantities together to create fiberglass scraps. The waste polyester/styrene monomers and MEK peroxide are currently regulated as high-TOC ignitable wastes for which the current standard is treatment by CMBST (combustion) or by RORGS (recovery of organics) before land disposal. Neither CMBST or RORGS allows for polymerization of high-TOC ignitable wastes into inert materials which do not exhibit any characteristics of toxicity, ignitability, corrosivity or reactivity. **In a final rule published in 62 FR 26007, May 12, 1997, the EPA has added polymerization to the set of approved treatment methods under the LDR rules**. The final rule became effective at the federal level August 11, 1997. The rule preamble states: "The Agency believes that the practice of

polymerizing high-TOC ignitible waste monomers and polymers which are chemical components in the manufacture of plastics to a noncharacteristic inert mass adequately minimizes threats posed by disposal of the waste." IDEM concurs, and until the final rules are effective, will consider polymerization an acceptable treatment method.

IDEM will accept, until final rules are effective in Indiana, POLYM as an alternative to CMBST or RORGS for those high-TOC D001 wastes which are chemical components in the manufacture of plastics. POLYM requires the addition of a polymerizing component or catalyst to the discarded high-TOC D001 monomer stream intended for land disposal. POLYM is defined as "Formation of complex high-molecular weight solids through polymerization of monomers with high-TOC D001 nonwastewaters which are chemical components in the manufacture of plastics." The Department notes that the accumulation time provisions for on-site storage of hazardous waste in tanks and containers (40 CFR 262.34) allow generators to treat waste monomers and catalysts in 90 day tanks and containers provided that these wastes are managed in accordance with other applicable tank and container standards. It is anticipated that most of this wastestream will be treated in this manner. Generators which treat their characteristic hazardous waste to render it non-hazardous are required, under 40 CFR 268.9, to submit a one-time notification and certification to IDEM and to develop and follow, as specified under 40 CFR 268.7, a waste analysis plan. Large quantity generators which treat waste on-site must also report this activity on their biennial report.

If you need additional information, or have any questions or concerns, please contact staff of the Hazardous Waste Compliance Branch, Office of Solid and Hazardous Waste Management, at 317-232-8941 or 317-232-4518. The IDEM toll-free telephone number is 1-800-451-6027.

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