

ILLINOIS POLLUTION CONTROL BOARD
March 8, 1984

In the matter of:)
) R81-25
PROHIBITION ON LANDFILLING)
OF HALOGENATED SOLVENTS (CBE))

PROPOSED RULE. FIRST NOTICE

SECOND PROPOSED ORDER OF THE BOARD (by D. Anderson):


On May 5, 1983 the Board proposed to adopt 35 Ill. Adm. Code 729. For the reasons outlined in the Second Proposed Opinion, the Board withdraws the May 5 Proposed Order, and substitutes this Second Proposed Order. Because of its length, the Second Proposed Order will not be published in the Opinion volumes, but will be distributed to participants. The proposal will be published for first notice in the Illinois Register; the record will remain open for a period of 45 days for public comment following publication in the Illinois Register.

This Second Proposed Order is supported by a Second Proposed Opinion of the same date.

IT IS SO ORDERED.

Board Member Bill Forcade abstained.
Board Member J. Theodore Meyer dissented.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Second Order was adopted on the 8th day of March, 1984 by a vote of 4-1



Christan L. Moffett, Clerk
Illinois Pollution Control Board

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE G: WASTE DISPOSAL
CHAPTER I: POLLUTION CONTROL BOARD
SUBCHAPTER c: HAZARDOUS WASTE OPERATING REQUIREMENTS

PART 729
LANDFILLS: PROHIBITED HAZARDOUS WASTES

SUBPART A: GENERAL

Section	
729.100	Purpose, Scope and Applicability
729.120	Generator's Assertion of Exemption
729.121	Mitigation
729.122	Relationship to Wastestream Permits
729.123	Waste Analysis
729.140	Variances and Site Specific Regulations

SUBPART B: HALOGENATED SOLVENTS

Section	
729.200	Purpose, Scope and Applicability
729.201	No Circumvention
729.202	Incorporations by Reference
729.220	Definitions
729.221	Halogenated Compound--Definition
729.222	Halogenated Solvent--Definition
729.223	Halogen Content Presumption
729.224	Partition Presumption
729.240	Non-aqueous Liquid Phases which are Halogenated Solvents
729.241	Aqueous Solutions of Halogenated Compounds
729.242	Solids Containing Halogenated Compounds
729.261	Dry Cleaning Wastes
729.262	Recycling Residues
729.263	Small Quantity Generators

AUTHORITY: Implementing Section 22(h) and 22.4(b) and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1981, ch. 111 1/2, pars. 1022(h), 1022.4(b) and 1027).

SOURCE: Adopted at _ Ill. Reg. _____, effective _____.

SUBPART A: GENERAL

Section 729.100 Purpose, Scope and Applicability

- a) The purpose of this Part is to prohibit the disposal of certain hazardous wastes in landfills.
- b) The requirements of this Part apply to all landfills, or "sanitary landfills" as defined in the Environmental Protection Act (Act) (Ill. Rev. Stat. 1981, ch. 111 1/2, par. 1001). Landfills include both non-hazardous and hazardous waste landfills permitted under Sections 21(d) or 21(f) of the Act. Landfills include surface impoundments and waste piles in which waste residues are expected to remain after closure.
- c) The provisions of 35 Ill. Adm. Code 721.105 notwithstanding, the landfilling prohibitions of this Part apply to all persons, including small quantity generators, unless otherwise indicated in this Part.
- d) The landfilling prohibitions of this Part do not apply to residues of hazardous waste in containers, or empty liners removed from containers, as defined in 35 Ill. Adm. Code 721.107.
- e) The provisions of this Part are intended to supplement the requirements of 35 Ill. Adm. Code 722, 723, 724, 725, 807 and 809. No provisions of those regulations should be read as permitting the disposal of any hazardous waste in any manner prohibited under this Part.
- f) The provisions of this Part are intended to proscribe any conduct by generators, transporters or disposers of waste which results in placement of a prohibited waste in a landfill.

Section 729.120 Generator's Assertion of Exemption

- a) A transporter or disposer of waste, other than the generator of the waste, may rely on a written statement by the generator, signed by the generator, identifying the waste or wastestream, acknowledging that he is the generator of the waste and asserting that the waste is not subject to this Part or is subject to an exemption and the basis for such claim.
- b) Such written statement may be introduced as evidence in any enforcement action. It shall be a

complete defense to an allegation of violation of this Part by the person relying on such statement, unless it is shown that the person in fact knew, or reasonably should have known, based on knowledge within the person's possession, that the waste was subject to this Part or not subject to an exemption.

Section 729.121 Mitigation

- a) A person charged with violation of this Part may offer evidence that he did not know that the waste was prohibited under this Part and that he had adopted routine practices to prevent violation of this Part, such as employee training, posting of signs and random sampling of wastes. Such evidence shall not be a complete defense, but will be considered in mitigation of any penalty.
- b) Lack of knowledge that a waste is prohibited under this Part refers to a mistake as to the properties of the waste and not to lack of knowledge of the regulations.

Section 729.122 Relationship to Wastestream Permits

- a) This Part is intended to supplement requirements governing wastestream authorizations or supplemental permits issued by the Illinois Environmental Protection Agency (Agency) (Section 39(h) of the Act and 35 Ill. Adm. Code 807.210).
- b) The Agency may not authorize any wastestream for disposal in a landfill if it has been prohibited under this Part.
- c) In reviewing a wastestream which is routinely generated, the Agency shall consider the average rate of generation, composition and concentrations, together with the expected range, in determining the applicability of this Part. The Agency shall authorize the wastestream if averages conform with this Part, and may specify maximum quantities, concentrations or other conditions necessary to assure long-term compliance with this Subpart. A waste authorized by the Agency after such review may be landfilled notwithstanding this Subpart, provided the waste conforms to the wastestream description in the authorization.

Section 729.123 Waste Analysis

- a) This Part is not intended to specify analytical techniques to be used to identify waste loads coming into landfills. Analytical techniques may be specified in waste disposal permits issued pursuant to Section 21(d) of the Act, or in the waste analysis plan for RCRA permits or interim status (35 Ill. Adm. Code 724.113 and 725.113).
- b) The operator may utilize any analytical technique which he demonstrates, pursuant to the permit procedures, to have a reasonable relationship to the actual composition and concentration of the wastes to be analyzed.

Section 729.140 Variances and Site Specific Regulations

- a) As provided in Title IX of the Environmental Protection Act and 35 Ill. Adm. Code 104, any person may petition for a temporary variance.
- b) As provided in Title VII of the Environmental Protection Act and 35 Ill. Adm. Code 102, any person may request amendment of this Part.

SUBPART B: HALOGENATED SOLVENTS

Section 729.200 Purpose, Scope and Applicability

- a) This Subpart prohibits the landfilling of wastes containing halogenated compounds. Rules are included to differentiate these from other wastes.
- b) Halogenated solvents are a subset of organic solvents. As a class halogenated solvents are not very soluble in water; therefore, in a complex system, they will be found in a non-aqueous phase associated with any other organic solvents present. This Subpart assumes that any halogenated compounds present will be more concentrated in any non-aqueous liquid phase. The halogen concentration in the non-aqueous liquid phase is used to determine whether the phase should be regulated as a halogenated solvent or as an organic solvent. Regulations concerning organic solvents will be promulgated in another Subpart.
- c) Organic solvent phases, whether they include halogenated solvents or not, pose a threat to the impermeability of clay and synthetic landfill liners.

- d) Aqueous solutions of halogenated compounds placed directly into the landfill, could damage synthetic liners and move into groundwater.
- e) The Board intends to prohibit the practice of mixing with solid absorbent materials organic solvent phases which are halogenated solvents. This is to be distinguished from chemical fixation, which is not prohibited.
- f) Because of their differing impacts on landfills, the Board intends to encourage the separation prior to disposal of phases in multiphase wastes, and intends to encourage the separation of wastestreams during generation to avoid the formation of multiphase wastes.

Section 729.201 No Circumvention

- a) No person shall cause or allow the mixing or dilution of halogenated solvents in order to evade the landfilling prohibitions of this Subpart.
- b) No person shall cause or allow the addition of absorbent material to an halogenated solvent in order to evade the landfilling prohibitions of this Part.
- c) For purposes of determining quantity exemptions, any waste which is transferred prior to ultimate disposal shall be attributed to the last person who used the solvent.

Section 729.202 Incorporations by Reference

The following materials are incorporated by reference:

- a) American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103:
 - 1) ASTM D2361-66 (Reapproved 1978)
 - 2) ASTM E442-74 (Reapproved 1981)
- b) Paint filter test proposed at 47 Fed. Reg. 831, February 25, 1982, and at 47 Fed. Reg. 12317, March 22, 1982.

Section 729.220 Definitions

As used in this Subpart, terms have the following meaning:

Aqueous phase: A "phase" in which water is the solvent, constituting more than 500 g/kg.

Component: An element or compound present in a "phase" or "system".

Emulsion: A "system", including two or more liquid "phases", which is not separated into layers. For purposes of this Subpart, an emulsion which does not form layers within one hour is one phase.

Liquid: A waste, or part of a waste, which is not a "solid," or a gas.

Non-aqueous phase: A "phase" which contains 500 g/kg or less of water.

One-phase system: A "system" with one and only one "phase".

Phase: A physically distinct portion of a dispersion or solution which at least in principal could be mechanically separated from the remainder of the material. For purposes of this Subpart, a container is not a phase, nor is a vapor above a waste. Emulsions and suspensions are a single phase if they do not form layers within one hour.

Solid: A waste, or part of a waste, which contains no free liquid as determined from the paint filter test referenced in Section 729.202(b).

Suspension: A "system", including a "solid" phase and a "liquid" phase, which is not separated into layers. For purposes of this Subpart, a suspension which does not form layers within one hour is one phase.

System: A single isolated "phase" or a set of two or more "phases" which are in physical contact.

Two-phase system: A "system" with two "phases".

Section 729.221 Halogenated Compound--Definition

As used in this Subpart, the term "halogenated compound" shall mean any of the following chemicals:

B010	benzene, chloro-
B020	benzene, 1,2-dichloro-
B090	carbon tetrachloride
B030	chlorinated fluorocarbons
B040	ethane, 1,1,1-trichloro-
B050	ethane, 1,1,2-trichloro-1,2,2-trifluoro-
B060	ethene, tetrachloro-
B070	ethene, trichloro-

B070 ethinyl trichloride
B080 methane, dichloro-
B090 methane, tetrachloro-
B100 methane, trichlorofluoro-
B040 methyl chloroform
B080 methylene chloride
B080 methylene dichloride
B020 orthodichlorobenzene
B060 perchloroethylene
B010 phenyl chloride
B060 tetrachloroethylene
B070 trichloroethylene
B100 trichloromonofluoromethane

Section 729.222 Halogenated Solvent--Definition

An "halogenated solvent" is a non-aqueous liquid phase containing more than 14,000 mg of halogenated compounds in any 1 kg.

Section 729.223 Halogen Content Presumption

A non-aqueous liquid phase containing 10,000 mg/kg, or more, total organic halogen is assumed to be an halogenated solvent unless it is shown that less than 14,000 mg of the halogenated compounds listed in Section 729.221 are present in any 1 kg of the phase.

Section 729.224 Partition Presumption

It is assumed that, in a multi-phase system, the concentration of halogenated compounds and the total organic halogen concentration in any non-aqueous phase exceeds the concentration of halogenated compounds and the total organic halogen concentration, respectively, in the entire system and in any aqueous phase, unless the contrary is shown.

Section 729.240 Non-aqueous Liquid Phases which are Halogenated Solvents

No person shall cause or allow any hazardous waste containing a non-aqueous liquid phase which is an halogenated solvent to be placed in any landfill; provided, however, that wastes which are solid are subject to Section 729.243 instead.

Section 729.241 Aqueous Solutions of Halogenated Compounds

- a) No person shall cause or allow to be placed in any landfill any hazardous waste containing an aqueous liquid phase containing more than 14,000 mg of halogenated compounds in any 1 kg.

- b) An aqueous liquid phase containing more than 10,000 mg of total organic halogen in any 1 kg is assumed to contain more than 14,000 mg of halogenated compounds per kilogram, unless the contrary is shown.
- c) The partition presumption of Section 729.224 may be used to find the upper limit of concentrations in an aqueous phase from measurements made on a non-aqueous phase.

Section 729.242 Solids Containing Halogenated Compounds

- a) No person shall cause or allow any hazardous waste which is a solid to be placed in any landfill if the waste forms a non-aqueous liquid phase which is an halogenated solvent when a representative sample of the waste is mixed with water.
- b) As used in this Section, a waste is not a solid if it contains "free liquid" as disclosed by the paint filter test incorporated by reference in Section 729.202. Such free liquid may be prohibited under Sections 729.240 or 729.241.
- c) The prohibition of paragraph (a) shall become effective on July 1, 1986.

Section 729.261 Dry Cleaning Wastes

This Subpart does not apply to dry cleaners which generate less than 100 kg per month, averaged over the current month and the preceding 11 months, of spent halogenated solvent, distillation residues, filters and other waste containing halogenated solvents. This exemption shall expire on July 1, 1986.

Section 729.262 Recycling Residues

This Subpart does not apply to sludges and still bottoms produced from recycling of halogenated solvents in which at least 30% of the waste is recovered for reuse. Such wastes shall be disposed of as hazardous wastes, if they are such, as defined in 35 Ill. Adm. Code 721. This exemption shall expire on July 1, 1986.

Section 729.263 Small Quantity Generators

- a) This Subpart does not apply to any person who generates waste containing less than 1 kg of halogenated compounds per month, as determined by averaging over the current month and the preceding 11 months.

- b) For purposes of this Section, the quantity of halogenated solvents in the waste may be estimated by:
- 1) Mass balance analysis of the processes producing the wastes; or
 - 2) By analysis of total organic halogen in representative samples of the waste, assuming that 0.7 kg of total organic halogen equals 1 kg of halogenated compounds.
 - 3) By any other method which the generator demonstrates to have a reasonable relationship to the actual quantity of halogenated compounds present in the waste.