Special requirements for incompatible wastes.

(A) Incompatible wastes, or incompatible wastes and materials (see the appendix of this rule for examples), shall not be placed in the same tank system, unless paragraph (B) of rule 3745-65-17 of the Administrative Code is complied with.

(B) Hazardous waste shall not be placed in a tank system that has not been decontaminated and that previously held an incompatible waste or material, unless paragraph (B) of rule 3745-65-17 of the Administrative Code us complied with.
Appendix to 3745-66-99

[Note: This appendix is equivalent to appendix V of 40 CFR Part 265.]

Examples of Potentially Incompatible Waste

Many hazardous wastes, when mixed with other waste or materials at a hazardous waste facility, can produce effects which are harmful to human health and the environment, such as: heat or pressure; fire or explosion; violent reaction, toxic dusts, mists, fumes, or gases; or flammable fumes or gases.

Below are examples of potentially incompatible wastes, waste components, and materials, along with the harmful consequences which result from mixing materials in one group with materials in another group. The list is intended as a guide to owners or operators of treatment, storage, and disposal facilities, and to enforcement and permit granting officials, to indicate the need for special precautions when managing these potentially incompatible waste materials or components.

This list is not intended to be exhaustive. An owner or operator must, as the regulations require, adequately analyze his wastes so that he can avoid creating uncontrolled substances or reactions of the type listed below, whether they are listed below or not.

It is possible for potentially incompatible wastes to be mixed in a way that precludes a reaction (e.g., adding acid to water rather than water to acid) or that neutralizes them (e.g., a strong acid mixed with a strong base), or that controls substances produced (e.g., by generating flammable gases in a closed tank equipped so that ignition cannot occur, and burning the gases in an incinerator).

In the lists below, the mixing of a group A material with a group B material may have the potential consequence as noted.

Group I-A
- Acetylene sludge
- Alkaline caustic liquids
- Alkaline cleaner
- Alkaline corrosive liquids
- Alkaline corrosive battery fluid
- Caustic waste water
- Lime sludge and other corrosive alkalies
- Lime waste water
- Lime and water
- Spent caustic

Group 1-B
- Acid sludge
- Acid and water
- Battery acid
- Chemical cleaners
- Electrolyte acid
- Etching acid liquid or solvent
- Pickling liquor and other corrosive acids
- Spent acid
Spent mixed acid
Spent sulfuric acid
Potential consequences: heat generation; violent reaction.

Group 2-A
Aluminum
Beryllium
Calcium
Lithium
Magnesium
Potassium
Sodium
Zinc powder
Other reactive metals and metal hydrides

Group 2-B
Any waste in Group 1-A or 1-B
Potential consequences: fire or explosion; generation of flammable hydrogen gas.

Group 3-A
Alcohols
Water

Group 3-B
Any concentrated waste in Groups 1-A or 1-B
Calcium
Lithium
Metal hydrides
Potassium
SO₂Cl₂, SOCl₂, PCl₃, CH₃SiCl₃
Other water-reactive waste
Potential consequences: fire, explosion, or heat generation; generation of flammable or toxic gases.

Group 4-A
Alcohols
Aldehydes
Halogenated hydrocarbons
Nitrated hydrocarbons
Unsaturated hydrocarbons
Other reactive organic compounds and solvents

Group 4-B
Concentrated Group 1-A or 1-B wastes
Potential consequences: fire, explosion, or violent reaction.

Group 5-A
Spent cyanide and sulfide solutions

Group 5-B
Group 1-B wastes
Potential consequences: generation of toxic hydrogen cyanide or hydrogen sulfide gas.

Group 6-A
Chlorates
Chlorine
Chlorite
Chronic acid
Hypochlorites
Nitrates
Nitric acid, fuming
Perchlorates
Permanganates
Peroxides
Other strong oxidizers

Group 6-B
Acetic acid and other organic acids
Concentrated mineral acids
Group 2-A wastes
Group 4-A wastes
Other flammable and combustible wastes
Potential consequences: fire, explosion, or violent reaction.

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