ILLINOIS POLLUTION CONTROL BOARD
April 11, 1991

IN THE MATTER OF:	)	
	)	R90-11
RCRA UPDATE, USEPA REGULATIONS (4-1-90 THROUGH 6-30-90)	)	(Identical in Substance Rules)

ADOPTED RULE. FINAL ORDER.

ORDER OF THE BOARD (By J. Anderson):

Pursuant to Sections 22.4(a) of the Environmental Protection Act (Act), the Board is amending RCRA hazardous waste regulations. The amendments involve 35 Ill. Adm. Code 703, 720, 721, 722, 724, 725, 726 and 728.

Section 22.4(a) provides for quick adoption of regulations which are "identical in substance" to federal regulations; it also provides that Title VII of the Act and Section 5 of the Administrative Procedure Act (APA) shall not apply. Because this rulemaking is not subject to Section 5 of the APA, it is not subject to first notice or to second notice review by the Joint Committee on Administrative Rules (JCAR). The federal RCRA regulations are found at 40 CFR 260 through 270. This rulemaking updates RCRA rules to correspond with federal amendments more fully outlined in the accompanying Opinion.

This Order is supported by an Opinion adopted on the same day. The Board will allow 30 days for post-adoption comment by the agencies involved in the authorization process before filing the adopted rules.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Order was adopted on the 11th day of April, 1991, by a vote of 7-0.

Dorothy M. Gunn

Dorothy M. Gunn, Clerk
Illinois Pollution Control Board

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE G: WASTE DISPOSAL
CHAPTER I: POLLUTION CONTROL BOARD
SUBCHAPTER b: PERMITS

PART 703
RCRA PERMIT PROGRAM

SUBPART A: GENERAL PROVISIONS

SUBPART B: PROHIBITIONS

SUBPART C: AUTHORIZATION BY RULE AND INTERIM STATUS

SUBPART D: APPLICATIONS

AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1989, ch. 111 1/2, pars. 1022.4 and 1027).

SOURCE: Adopted in R82-19, 53 PCB 131, at 7 Ill. Reg. 14289, effective October 12, 1983; amended in R83-24 at 8 Ill. Reg. 206, effective December 27, 1983; amended in R84-9 at 9 Ill. Reg. 11899, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg.

1110, effective January 2, 1987; amended in R85-23 at 10 Ill. Reg. 13284, effective July 28, 1986; amended in R86-1 at 10 Ill. Reg. 14093, effective August 12, 1986; amended in R86-19 at 10 Ill. Reg. 20702, effective December 2, 1986; amended in R86-28 at 11 Ill. Reg. 6121, effective March 24, 1987; amended in R86-46 at 11 Ill. Reg. 13543, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19383, effective November 12, 1987; amended in R87-26 at 12 Ill. Reg. 2584, effective January 15, 1988; amended in R87-39 at 12 Ill. Reg. 13069, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 447, effective December 27, 1988; amended in R89-1 at 13 Ill. Reg. 18477, effective November 13, 1989; amended in R89-9 at 14 Ill. Reg. 6278, effective April 16, 1990; amended in R90-2 at 14 Ill. Reg. 14492, effective August 22, 1990; amended in R90-11 at 15 Ill. Reg. , effective

SUBPART D: APPLICATIONS

Section 703.183 General Information

The following information is required in the Part B application for all HWM facilities, except as 35 Ill. Adm. Code 724.101 provides otherwise:

a) A general description of the facility;

b) Chemical and physical analyses of the hazardous wastes to be handled at the facility. At a minimum, these analyses must contain all the information which must be known to treat, store or dispose of the wastes properly in accordance with 35 Ill. Adm. Code 724;

c) A copy of the waste analysis plan required by 35 Ill. Adm. Code 724.113(b) and, if applicable, 35 Ill. Adm. Code 724.113(c);

d) A description of the security procedures and equipment required by 35 Ill. Adm. Code 724.114, or a justification demonstrating the reasons for requesting a waiver of this requirement;

e) A copy of the general inspection schedule required by 35 Ill. Adm. Code 724.115(b). Include where applicable, as part of the inspection schedule, specific requirements in 35 Ill. Adm. Code 724.274, 724.293(i), 724.295, 724.326, 724.354, 724.373, 724.403, ~~and~~724.702, 724.933, 724.952, 924.953 and 724.958;

f) A justification of any request for a waiver of the preparedness and prevention requirements of 35 Ill. Adm. Code 724.Subpart C;

g) A copy of the contingency plan required by 35 Ill. Adm. Code 724.Subpart D;

BOARD NOTE: Include, where applicable, as part of the contingency plan, specific requirements in 35 Ill. Adm. Code 724.327 and 724.355. 35 Ill. Adm. Code 724.355 has not yet been adopted.

h) A description of procedures, structures or equipment used at the facility to:

1) Prevent hazards in unloading operations (for example, ramps, special forklifts);

2) Prevent runoff from hazardous waste handling areas to other areas of the facility or environment, or to prevent flooding (for example, berms, dikes, trenches);

3) Prevent contamination of water supplies;

4) Mitigate effects of equipment failure and power outages; ~~and~~

5) Prevent undue exposure of personnel to hazardous waste (for example, protective clothing); and

6) Prevent releases to the atmosphere.

i) A description of precautions to prevent accidental ignition or reaction of ignitable, reactive or incompatible wastes as required to demonstrate compliance with 35 Ill. Adm. Code 724.117 including documentation demonstrating compliance with 35 Ill. Adm. Code 724.117(c);

j) Traffic pattern, estimated volume (number, types of vehicles) and control (for example, show turns across traffic lanes and stacking lanes (if appropriate); describe access road surfacing and load bearing capacity; show traffic control signals);

k) Facility location information as required by Section 703.184;

l) An outline of both the introductory and continuing training programs by owners or operators to prepare persons to operate or maintain the HWM facility in a safe manner as required to demonstrate compliance with 35 Ill. Adm. Code 724.116. A brief description of how training will be designed to meet actual job tasks in

accordance with requirements in 35 Ill. Adm. Code 724.116(a)(3);

m) A copy of the closure plan and, where applicable, the post-closure plan required by 35 Ill. Adm. Code 724.212, 724.218 and 724.297. Include where applicable, as part of the plans, specific requirements in 35 Ill. Adm. Code 724.278, 724.297, 724.328, 724.358, 724.380, 724.410, 724.451, 724.701 and 724.703;

n) For hazardous waste disposal units that have been closed, documentation that notices required under 35 Ill. Adm Code 724.219 have been filed;

o) The most recent closure cost estimate for the facility prepared in accordance with 35 Ill. Adm. Code 724.242 and a copy of the documentation required to demonstrate financial assurance under 35 Ill. Adm. Code 724.243. For a new facility, a copy of the required documentation may be submitted 60 days prior to the intitial receipt of hazardous wastes, if it is later than the submission of the Part B;

p) Where applicable, the most recent post-closure cost estimate for the facility prepared in accordance with 35 Ill. Adm. Code 724.244 plus a copy of the documentation required to demonstrate financial assurance under 35 Ill. Adm. Code 724.245; For a new facility, a copy of the required documentation may be submitted 60 days prior to the intitial receipt of hazardous wastes, if it is later than the submission of the Part B;

q) Where applicable, a copy of the insurance policy or other documentation which comprises compliance with the requirements of 35 Ill. Adm. Code 724.247. For a new facility, documentation showing the amount of insurance meeting the specification of 35 Ill. Adm. Code 724.247(a) and, if applicable, 35 Ill. Adm. Code 724.247(b), that the owner or operator plans to have in effect before initial receipt of hazardous waste for treatment, storage or disposal. A request for an alternative level of required coverage, for a new or existing facility, may be submitted as specified in 35 Ill. Adm. Code 724.247(c);

s) A topographic map showing a distance of 1000 feet around the facility at a scale of 2.5 centimeters (1 inch) equal to not more than 61.0 meters (200 feet). Contours must be shown on the map. The contour interval must be sufficient to clearly show the pattern

of surface water flow in the vicinity of and from each operational unit of the facility. For example, contours with an interval of 1.5 meters (5 feet), if relief is greater than 6.1 meters (20 feet), or an interval of 0.6 meters (2 feet), if relief is less than 6.1 meters (20 feet). Owners and operators of HWM facilities located in mountainous areas shall use larger contour intervals to adequately show topographic profiles of facilities. The map must clearly show the following:

1) Map scale and date;

2) 100-year floodplain area;

3) Surface waters including intermittent streams;

4) Surrounding land uses (residential, commercial, agricultural, recreational);

5) A wind rose (i.e., prevailing windspeed and direction);

6) Orientation of the map (north arrow);

7) Legal boundaries of the HWM facility site;

8) Access control (fences, gates);

9) Injection and withdrawal wells both on-site and off-site;

10) Buildings; treatment, storage or disposal operations; or other structures (recreation areas, runoff control systems, access and internal roads, storm, sanitary and process sewage systems, loading and unloading areas, fire control facilities, etc.);

11) Barriers for drainage or flood control;

12) Location of operational units within the HWM facility site, where hazardous waste is (or will be) treated, stored or disposed (include equipment cleanup areas);

BOARD NOTE: For large HWM facilities, the Agency shall allow the use of other scales on a case by case basis.

t) Applicants shall submit such information as the Agency determines is necessary for it to determine whether to

issue a permit and what conditions to impose in any permit issued.

u) For land disposal facilities, if a case-by-case extension has been approved under 35 Ill. Adm. Code 728.105, or if a petition has been approved under 35 Ill. Adm. Code 728.106, a copy of the notice of approval of the extension or of approval of the petition is required.

BOARD NOTE: Derived from 40 CFR 270.14(b) (1988), as amended at 54 Fed. Reg. 617, January 9, 1989.

Source: Amended at 15 Ill. Reg. , effective

Section 703.210 Process Vents

Except as otherwise provided in 35 Ill. Adm. Code 724.101, owners and operators of facilities which have process vents to which 35 Ill. Adm. Code 724.Subpart AA applies shall provide the following additional information:

a) For facilities which cannot install a closed-vent system and control device to comply with 35 Ill. Adm. Code 724.Subpart AA, on the effective date on which the facility becomes subject to that Subpart or 35 Ill. Adm. Code 725.Subpart AA, an implementation schedule as specified in 35 Ill. Adm. Code 724.933(a)(2).

b) Documentation of compliance with the process vent standards in 35 Ill. Adm. Code 724.932, including:

1) Information and data identifying all affected process vents, annual throughput and operating hours of each affected unit, estimated emission rates for the affected vent and for the overall facility (i.e., the total emissions for all affected vents at the facility) and the approximate location within the facility of each affected unit (e.g., identify the hazardous waste management units on a facility plot plan).

2) Information and data supporting estimates of vent emissions and emission reduction achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, estimates of vent emissions and emission reductions must be made using operating parameter values (e.g., temperatures, flow rates or concentrations) which represent the conditions which exist when the

waste management unit is operating at the highest load or capacity level reasonably expected to occur.

3) Information and data used to determine whether or not a process vent is subject to 35 Ill. Adm. Code 724.932.

c) Where an owner or operator applies for permission to use a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser or carbon adsorption system to comply with 35 Ill. Adm. Code 724.932, and chooses to use test data to determine the organic removal efficiency or the total organic compound concentration achieved by the control device, a performance test plan as specified in 35 Ill. Adm. Code 724.935(b)(3).

d) Documentation of compliance with 35 Ill. Adm. Code 724.933, including:

1) A list of all information references and sources used in preparing the documentation.

2) Records including the dates of each compliance test required by 35 Ill. Adm. Code 724.933(k).

3) A design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of APTI Course 415, incorporated by reference in 35 Ill. Adm. Code 720.111, or other engineering texts approved by the Agency which present basic control device design information. The design analysis must address the vent stream characteristics and control device parameters as specified in 35 Ill. Adm. Code 724.935(b)(4)(C).

4) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions which exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

5) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 weight percent or greater unless the total organic emission limits of 35 Ill. Adm. Code 724.932(a)

for affected process vents at the facility can be attained by a control device involving vapor recovery at an efficiency less than 95 weight percent.

Source: Added at 15 Ill. Reg. , effective

Section 703.211 Equipment

Except as otherwise provided in 35 Ill. Adm. Code 724.101, owners and operators of facilities which have equipment to which 35 Ill. Adm. Code 724.Subpart BB applies shall provide the following additional information:

a) For each piece of equipment to which 35 Ill. Adm. Code 724.Subpart BB applies:

1) Equipment identification number and hazardous waste management unit identification.

2) Approximate locations within the facility (e.g., identify the hazardous waste management unit on a facility plot plan).

3) Type of equipment (e.g., a pump or pipeline valve).

4) Percent by weight total organics in the hazardous wastestream at the equipment.

5) Hazardous waste state at the equipment (e.g., gas/vapor or liquid).

6) Method of compliance with the standard (e.g., "monthly leak detection and repair" or "equipped with dual mechanical seals").

b) For facilities which cannot install a closed-vent system and control device to comply with 35 Ill. Adm. Code 724.Subpart BB on the effective date that facility becomes subject to this Subpart or 35 Ill. Adm. Code 724.Subpart BB, an implementation schedule as specified in 35 Ill. Adm. Code 724.933(a)(2).

c) Where an owner or operator applies for permission to use a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser or carbon adsorption system and chooses to use test data to determine the organic removal efficiency or the total organic compound concentration achieved by the control device,

a performance test plan as specified in 35 Ill. Adm. Code 724.935(b)(3).

d) Documentation which demonstrates compliance with the equipment standards in 35 Ill. Adm. Code 724.952 or 724.959. This documentation must contain the records required under 35 Ill. Adm. Code 724.964. The Agency shall request further documentation if necessary to demonstrate compliance. Documentation to demonstrate compliance with 35 Ill. Adm. Code 724.960 must include the following information:

1) A list of all information references and sources used in preparing the documentation.

2) Records including the dates of each compliance test required by 35 Ill. Adm. Code 724.933(j).

3) A design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of APTI Course 415, incorporated by reference in 35 Ill. Adm. Code 720.111, or other engineering texts appproved by the Agency which present basic control device design information. The design analysis must address the vent stream characteristics and control device parameters as specified in 35 Ill. Adm. Code 724.935(b)(4)(C).

4) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions which exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

5) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 weight percent or greater.

Source: Added at 15 Ill. Reg. , effective

Section 703.Appendix A Classification of Permit Modifications

Class	Modifications
	A. General Permit Provisions
1	1. Administrative and informational changes.
1	2. Correction of typographical errors.
1	3. Equipment replacement or upgrading with functionally equivalent components (e.g., pipes, valves, pumps, conveyors, controls).
	4. Changes in the frequency of or procedures for monitoring, reporting, sampling or maintenance activities by the permittee:
1	a. To provide for more frequent monitoring, reporting or maintenance.
2	b. Other changes.
	5. Schedule of compliance:
1*	a. Changes in interim compliance dates, with prior approval of the Agency. BOARD NOTE: "*" indicates that prior Agency approval is required.
3	b. Extension of final compliance date.
1*	6. Changes in expiration date of permit to allow earlier permit termination, with prior approval of the Agency.
1*	7. Changes in ownership or operational control of a facility, provided the procedures of Section 703.260(b) are followed.
	B. General Facility Standards
	1. Changes to waste sampling or analysis methods:
1	a. To conform with Agency guidance or Board regulations.
1	b. To incorporate changes associated with F039 (multi-source leachate) sampling or analysis methods.

2 ~~b~~ c. Other changes.

2. Changes to analytical quality assurance/control plan:

1 a. To conform with agency guidance or regulations.

2 b. Other changes.

1 3. Changes in procedures for maintaining the operating record.

2 4. Changes in frequency or content of inspection schedules.

5. Changes in the training plan:

2 a. That affect the type or decrease the amount of training given to employees.

1 b. Other changes.

6. Contingency plan:

2 a. Changes in emergency procedures (i.e., spill or release response procedures).

1 b. Replacement with functionally equivalent equipment, upgrade or relocate emergency equipment listed.

2 c. Removal of equipment from emergency equipment list.

1 d. Changes in name, address or phone number of coordinators or other persons or agencies identified in the plan.

Note: When a permit modification (such as introduction of a new unit) requires a change in facility plans or other general facility standards, that change must be reviewed under the same procedures as the permit modification.

C. Groundwater Protection

1. Changes to wells:

2 a. Changes in the number, location, depth or design of upgradient or downgradient wells of

permitted groundwater monitoring system.

1 b. Replacement of an existing well that has been damaged or rendered inoperable, without change to location, design or depth of the well.

1* 2. Changes in groundwater sampling or analysis procedures or monitoring schedule, with prior approval of the Agency.

1* 3. Changes in statistical procedure for determining whether a statistically significant change in groundwater quality between upgradient and downgradient wells has occurred, with prior approval of the Agency.

2* 4. Changes in point of compliance.

5. Changes in indicator parameters, hazardous constituents or concentration limits (including ACLs (Alternate Concentration Limits)):

3 a. As specified in the groundwater protection standard.

2 b. As specified in the detection monitoring program.

2 6. Changes to a detection monitoring program as required by 35 Ill. Adm. Code 724.198(j), unless otherwise specified in this Appendix.

7. Compliance monitoring program:

3 a. Addition of compliance monitoring program as required by 35 Ill. Adm. Code 724.198(h)(4) and 724.199.

2 b. Changes to a compliance monitoring program as required by 35 Ill. Adm. Code 724.199(k), unless otherwise specified in this Appendix.

8. Corrective action program:

3 a. Addition of a corrective action program as required by 35 Ill. Adm. Code 724.199(i)(2) and 724.200.

2 b. Changes to a corrective action program as required by 35 Ill. Adm. Code 724.200(h), unless otherwise specified in this Appendix.

D. Closure

1. Changes to the closure plan:

1* a. Changes in estimate of maximum extent of operations or maximum inventory of waste on-site at any time during the active life of the facility, with prior approval of the Agency.

1* b. Changes in the closure schedule for any unit, changes in the final closure schedule for the facility or extension of the closure period, with prior approval of the Agency.

1* c. Changes in the expected year of final closure, where other permit conditions are not changed, with prior approval of the Agency.

1* d. Changes in procedures for decontamination of facility equipment or structures, with prior approval of the Agency.

2 e. Changes in approved closure plan resulting from unexpected events occurring during partial or final closure, unless otherwise specified in this Appendix.

2 f. Extension of the closure period to allow a landfill, surface impoundment or land treatment unit to receive non-hazardous wastes after final receipt of hazardous wastes under 35 Ill. Adm. Code 724.213(d) or (e).

3 2. Creation of a new landfill unit as part of closure.

3. Addition of the following new units to be used temporarily for closure activities:

3 a. Surface impoundments.

3 b. Incinerators.

3 c. Waste piles that do not comply with 35 Ill. Adm. Code 724.350(c).

2 d. Waste piles that comply with 35 Ill. Adm. Code 724.350(c).

2 e. Tanks or containers (other than specified below).

1* f. Tanks used for neutralization, dewatering, phase separation or component separation, with prior approval of the Agency.

E. Post-Closure

1 1. Changes in name, address or phone number of contact in post-closure plan.

2 2. Extension of post-closure care period.

3 3. Reduction in the post-closure care period.

1 4. Changes to the expected year of final closure, where other permit conditions are not changed.

2 5. Changes in post-closure plan necessitated by events occurring during the active life of the facility, including partial and final closure.

F. Containers

1. Modification or addition of container units:

3 a. Resulting in greater than 25% increase in the facility's container storage capacity, except as provided in F(1)(c) and F(4)(a).

2 b. Resulting in up to 25% increase in the facility's container storage capacity, except as provided in F(1)(c) and F(4)(a).

1 c. Or treatment processes necessary to treat wastes that are restricted from land disposal to meet some or all of the applicable treatment standards or to treat wastes to satisfy (in whole or in part) the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8(a)(2)(ii), incorporated by reference in 35 Ill. Adm. Code 728.108, with prior approval of the Agency. This modification may also involve the addition of new waste codes or narrative description of wastes. It is not applicable to dioxin-containing wastes (F020, F021, F022, F023, F026, F027 and F028).

2.

2 a. Modification of a container unit without increasing the capacity of the unit.

1 b. Addition of a roof to a container unit without alteration of the containment system.

3. Storage of different wastes in containers, except as provided in F(4):

3 a. That require additional or different management practices from those authorized in the permit.

2 b. That do not require additional or different management practices from those authorized in the permit.

Note: See Section 703.280(g) for modification procedures to be used for the management of newly listed or identified wastes.

4. Storage or treatment of different wastes in containers:

2 a. That require addition of units or change in treatment process or management standards, provided that the wastes are restricted from land disposal and are to be treated to meet some or all of the applicable treatment standards, or are to be treated to satisfy (in whole or in part) the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8(a)(2)(ii), incorporated by reference in 35 Ill. Adm. Code 728.108. It is not applicable to dioxin-containing wastes (F020, F021, F022, F023, F026, F027 and F028).

1 b. That do not require the addition of units or a change in the treatment process or management standards, and provided that the units have previously received wastes of the same type (e.g., incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, F021, F022, F023, F026, F027 and F028).

G. Tanks

1.

3 a. Modification or addition of tank units resulting in greater than 25% increase in the facility's tank capacity, except as provided in paragraphs G(1)(c), G(1)(d) and G(1)(e).

2 b. Modification or addition of tank units resulting in up to 25% increase in the facility's tank capacity, except as provided in paragraphs G(1)(d) and G(1)(e).

2 c. Addition of a new tank that will operate for more than 90 days using any of the following physical or chemical treatment technologies: neutralization, dewatering, phase separation or component separation.

1* d. After prior approval of the Agency, addition of a new tank that will operate for up to 90 days using any of the following physical or chemical treatment technologies: neutralization, dewatering, phase separation or component separation.

1 e. Modification or addition of tank units or treatment processes that are necessary to treat wastes that are restricted from land disposal to meet some or all of the applicable treatment standards or to treat wastes to satisfy (in whole or in part) the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8(a)(2)(ii), incorporated by reference in 35 Ill. Adm. Code 728.108, with prior approval of the Agency. This modification may also involve the addition of new waste codes. It is not applicable to dioxin-containing wastes (F020, F021, F022, F023, F026, F027 and F028).

2 2. Modification of a tank unit or secondary containment system without increasing the capacity of the unit.

1 3. Replacement of a tank with a tank that meets the same design standards and has a capacity within +/- 10% of the replaced tank provided:

a. The capacity difference is no more than 1500

gallons,

b. The facility's permitted tank capacity is not increased and

c. The replacement tank meets the same conditions in the permit.

2 4. Modification of a tank management practice.

5. Management of different wastes in tanks:

3 a. That require additional or different management practices, tank design, different fire protection specifications or significantly different tank treatment process from that authorized in the permit, except as provided in paragraph G(5)(c).

2 b. That do not require additional or different management practices, tank design, different fire protection specification or significantly different tank treatment process than authorized in the permit, except as provided in paragraph G(5)(d).

Note: See Section 703.280(g) for modification procedures to be used for the management of newly listed or identified wastes.

1 c. That require addition of units or change in treatment processes or management standards, provided that the wastes are restricted from land disposal and are to be treated to meet some or all of the applicable treatment standards, or that are to be treated to satisfy (in whole or in part) the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8(a)(2)(ii), incorporated by reference in 35 Ill. Adm. Code 728.108. The modification is not applicable to dioxin-containing wastes (F020, F021, F022, F023, F026, F027 and F028).

1 d. That do not require the addition of units or a change in the treatment process or management standards, and provided that the units have previously received wastes of the same type (e.g., incinerator scrubber water). This modification is not applicable to

dioxin-containing wastes (F020, F021, F022, F023, F026, F027 and F028).

H. Surface Impoundments

3 1. Modification or addition of surface impoundment units that result in increasing the facility's surface impoundment storage or treatment capacity.

3 2. Replacement of a surface impoundment unit.

2 3. Modification of a surface impoundment unit without increasing the facility's surface impoundment storage or treatment capacity and without modifying the unit's liner, leak detection system or leachate collection system.

2 4. Modification of a surface impoundment management practice.

5. Treatment, storage or disposal of different wastes in surface impoundments:

3 a. That require additional or different management practices or different design of the liner or leak detection system than authorized in the permit.

2 b. That do not require additional or different management practices or different design of the liner or leak detection system than authorized in the permit.

Note: See Section 703.280(g) for modification procedures to be used for the management of newly listed or identified wastes.

1 c. That are wastes restricted from land disposal that meet the applicable treatment standards or that are treated to satisfy the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8(a)(2)(ii), incorporated by reference in 35 Ill. Adm. Code 728.108, and provided that the unit meets the minimum technological requirements stated in 40 CFR 268.5(h)(2), incorporated by reference in 35 Ill. Adm. Code 728.105. This modification is not applicable to dioxin-containing wastes (F020, F021, F022, F023, F026, F027 and F028).

1 d. That are residues from wastewater treatment or incineration, provided the disposal occurs in a unit that meets the minimum technological requirements stated in 40 CFR 268.5(h)(2), incorporated by reference in 35 Ill. Adm. Code 728.105, and provided further that the surface impoundment has previously received wastes of the same type (for example, incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, F021, F022, F023, F026, F027 and F028).

I. Enclosed Waste Piles. For all waste piles, except those complying with 35 Ill. Adm. Code 724.350(c), modifications are treated the same as for a landfill. The following modifications are applicable only to waste piles complying with 35 Ill. Adm. Code 724.350(c).

1. Modification or addition of waste pile units:

3 a. Resulting in greater than 25% increase in the facility's waste pile storage or treatment capacity.

2 b. Resulting in up to 25% increase in the facility's waste pile storage or treatment capacity.

2 2. Modification of waste pile unit without increasing the capacity of the unit.

1 3. Replacement of a waste pile unit with another waste pile unit of the same design and capacity and meeting all waste pile conditions in the permit.

2 4. Modification of a waste pile management practice.

5. Storage or treatment of different wastes in waste piles:

3 a. That require additional or different management practices or different design of the unit.

2 b. That do not require additional or different management practices or different design of the unit.

dioxin-containing wastes (F020, F021, F022, F023, F026, F027 and F028).

H. Surface Impoundments

3 1. Modification or addition of surface impoundment units that result in increasing the facility's surface impoundment storage or treatment capacity.

3 2. Replacement of a surface impoundment unit.

2 3. Modification of a surface impoundment unit without increasing the facility's surface impoundment storage or treatment capacity and without modifying the unit's liner, leak detection system or leachate collection system.

2 4. Modification of a surface impoundment management practice.

5. Treatment, storage or disposal of different wastes in surface impoundments:

3 a. That require additional or different management practices or different design of the liner or leak detection system than authorized in the permit.

2 b. That do not require additional or different management practices or different design of the liner or leak detection system than authorized in the permit.

Note: See Section 703.280(g) for modification procedures to be used for the management of newly listed or identified wastes.

1 c. That are wastes restricted from land disposal that meet the applicable treatment standards or that are treated to satisfy the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8(a)(2)(ii), incorporated by reference in 35 Ill. Adm. Code 728.108, and provided that the unit meets the minimum technological reguirements stated in 40 CFR 268.5(h)(2), incorporated by reference in 35 Ill. Adm. Code 728.105. This modification is not applicable to dioxin-containing wastes (F020, F021, F022, F023, F026, F027 and F028).

1 d. That are residues from wastewater treatment or incineration, provided the disposal occurs in a unit that meets the minimum technological requirements stated in 40 CFR 268.5(h)(2), incorporated by reference in 35 Ill. Adm. Code 728.105, and provided further that the surface impoundment has previously received wastes of the same type (for example, incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, F021, F022, F023, F026, F027 and F028).

I. Enclosed Waste Piles. For all waste piles, except those complying with 35 Ill. Adm. Code 724.350(c), modifications are treated the same as for a landfill. The following modifications are applicable only to waste piles complying with 35 Ill. Adm. Code 724.350(c).

1. Modification or addition of waste pile units:

3 a. Resulting in greater than 25% increase in the facility's waste pile storage or treatment capacity.

2 b. Resulting in up to 25% increase in the facility's waste pile storage or treatment capacity.

2 2. Modification of waste pile unit without increasing the capacity of the unit.

1 3. Replacement of a waste pile unit with another waste pile unit of the same design and capacity and meeting all waste pile conditions in the permit.

2 4. Modification of a waste pile management practice.

5. Storage or treatment of different wastes in waste piles:

3 a. That require additional or different management practices or different design of the unit.

2 b. That do not require additional or different management practices or different design of the unit.

Note: See Section 703.280(g) for modification procedures to be used for the management of newly listed or identified wastes.

J. Landfills and Unenclosed Waste Piles

3 1. Modification or addition of landfill units that result in increasing the facility's disposal capacity.

3 2. Replacement of a landfill.

3 3. Addition or modification of a liner, leachate collection system, leachate detection system, run-off control or final cover system.

2 4. Modification of a landfill unit without changing a liner, leachate collection system, leachate detection system, run-off control or final cover system.

2 5. Modification of a landfill management practice.

6. Landfill different wastes:

3 a. That require additional or different management practices, different design of the liner, leachate collection system or leachate detection system.

2 b. That do not require additional or different management practices, different design of the liner, leachate collection system or leachate detection system.

Note: See Section 703.280(g) for modification procedures to be used for the management of newly listed or identified wastes.

1 c. That are wastes restricted from land disposal that meet the applicable treatment standards or that are treated to satisfy the standard of "use of practically available technology that yields the greatest environmental benefit" contained in 40 CFR 268.8(a)(2)(ii), incorporated by reference in 35 Ill. Adm. Code 728.108, and provided that the landfill unit meets the minimum technological requirements stated in 40 CFR 268.5(h)(2), incorporated by reference in 35 Ill. Adm.

Code 728.105. This modification is not applicable to dioxin-containing wastes (F020, F021, F022, F023, F026, F027 and F028).

1 d. That are residues from wastewater treatment or incineration, provided the disposal occurs in a landfill unit that meets the minimum technological requirements stated in 40 CFR 268.5(h)(2), incorporated by reference in 35 Ill. Adm. Code 728.105, and provided further that the landfill has previously received wastes of the same type (for example, incinerator ash). This modification is not applicable to dioxin-containing wastes (F020, F021, F022, F023, F026, F027 and F028).

K. Land Treatment

3 1. Lateral expansion of or other modification of a land treatment unit to increase area extent.

2 2. Modification of run-on control system.

3 3. Modify run-off control system.

2 4. Other modification of land treatment unit component specifications or standards required in permit.

5. Management of different wastes in land treatment units:

3 a. That require a change in permit operating conditions or unit design specifications.

2 b. That do not require a change in permit operating conditions or unit design specifications.

Note: See Section 703.280(g) for modification procedures to be used for the management of newly listed or identified wastes.

6. Modification of a land treatment unit management practice to:

3 a. Increase rate or change method of waste application.

1 b. Decrease rate of waste application.

2	7.	Modification of a land treatment unit management practice to change measures of pH or moisture content or to enhance microbial or chemical reactions.
3	8.	Modification of a land treatment unit management practice to grow food chain crops, to add to or replace existing permitted crops with different food chain crops or to modify operating plans for distribution of animal feeds resulting from such crops.
3	9.	Modification of operating practice due to detection of releases from the land treatment unit pursuant to 35 Ill. Adm. Code 724.378(g)(2).
3	10.	Changes in the unsaturated zone monitoring system resulting in a change to the location, depth, number of sampling points or replace unsaturated zone monitoring devices or components of devices with devices or components that have specifications different from permit requirements.
2	11.	Changes in the unsaturated zone monitoring system that do not result in a change to the location, depth, number of sampling points, or that replace unsaturated zone monitoring devices or components of devices with devices or components having specifications different from permit requirements.
2	12.	Changes in background values for hazardous constituents in soil and soil-pore liquid.
2	13.	Changes in sampling, analysis or statistical procedure.
2	14.	Changes in land treatment demonstration program prior to or during the demonstration.
1*	15.	Changes in any condition specified in the permit for a land treatment unit to reflect results of the land treatment demonstration, provided performance standards are met, and the Agency's prior approval has been received.
1*	16.	Changes to allow a second land treatment demonstration to be conducted when the results of the first demonstration have not shown the conditions under which the wastes can be treated completely, provided the conditions for the second demonstration are substantially the same as the conditions for the first demonstration and have

received the prior approval of the Agency.

3 17. Changes to allow a second land treatment demonstration to be conducted when the results of the first demonstration have not shown the conditions under which the wastes can be treated completely, where the conditions for the second demonstration are not substantially the same as the conditions for the first demonstration.

2 18. Changes in vegetative cover requirements for closure.

L. Incinerators

3 1. Changes to increase by more than 25% any of the following limits authorized in the permit: A thermal feed rate limit, a waste feed rate limit or an organic chlorine feed rate limit. The Agency shall require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means.

2 2. Changes to increase by up to 25% any of the following limits authorized in the permit: A thermal feed rate limit, a waste feed limit or an organic chlorine feed rate limit. The Agency shall require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means.

3 3. Modification of an incinerator unit by changing the internal size or geometry of the primary or secondary combustion units, by adding a primary or secondary combustion unit, by substantially changing the design of any component used to remove HCl or particulates from the combustion gases or by changing other features of the incinerator that could affect its capability to meet the regulatory performance standards. The Agency shall require a new trial burn to substantiate compliance with the regulatory performance standards, unless this demonstration can be made through other means.

2 4. Modification of an incinerator unit in a manner that will not likely affect the capability of the unit to meet the regulatory performance standards but which will change the operating conditions or monitoring requirements specified in the permit.

The Agency may require a new trial burn to demonstrate compliance with the regulatory performance standards.

5. Operating requirements:

3 a. Modification of the limits specified in the permit for minimum combustion gas temperature, minimum combustion gas residence time or oxygen concentration in the secondary combustion chamber. The Agency shall require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means.

3 b. Modification of any stack gas emission limits specified in the permit, or modification of any conditions in the permit concerning emergency shutdown or automatic waste feed cutoff procedures or controls.

2 c. Modification of any other operating condition or any inspection or recordkeeping requirement specified in the permit.

6. Incineration of different wastes:

3 a. If the waste contains a POHC that is more difficult to incinerate than authorized by the permit or if incineration of the waste requires compliance with different regulatory performance standards than specified in the permit, the Agency shall require a new trial burn to substantiate compliance with the regulatory performance standards, unless this demonstration can be made through other means.

b. If the waste does not contain a POHC that is more difficult to incinerate than authorized by the permit and if incineration of the waste does not require compliance with different regulatory performance standards than specified in the permit.

BOARD NOTE: See Section 703.280(g) for modification procedures to be used for the management of newly listed or identified wastes.

7. Shakedown and trial burn:

2 a. Modification of the trial burn plan or any of the permit conditions applicable during the shakedown period for determining operational readiness after construction, the trial burn period or the period immediately following the trial burn.

1* b. Authorization of up to an additional 720 hours of waste incineration during the shakedown period for determining operational readiness after construction, with the prior approval of the Agency.

1* c. Changes in the operating requirements set in the permit for conducting a trial burn, provided the change is minor and has received the prior approval of the Agency.

1* d. Changes in the ranges of the operating requirements set in the permit to reflect the results of the trial burn, provided the change is minor and has received the prior approval of the Agency.

1 8. Substitution of an alternate type of fuel that is not specified in the permit.

BOARD NOTE: Derived from 40 CFR 270.42, Appendix I~~, as adopted at 53 Fed. Reg. 37934, September 28, 1988~~ (1990).

(Source: Amended at 15 Ill. Reg. , effective

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

PART 720
HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

SUBPART A: GENERAL PROVISIONS

SUBPART B: DEFINITIONS

SUBPART C: RULEMAKING PETITIONS AND OTHER PROCEDURES

AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1989, ch. 111 1/2, pars. 1022.4 and 1027).

SOURCE: Adopted in R81-22, 43 PCB 427, at 5 Ill. Reg. 9781, effective as noted in 35 Ill. Adm. Code 700.106; amended and codified in R81-22, 45 PCB 317, at 6 Ill. Reg. 4828, effective as noted in 35 Ill. Adm. Code 700.106; amended in R82-19 at 7 Ill. Reg. 14015, effective Oct. 12, 1983; amended in R84-9, 53 PCB 131 at 9 Ill. Reg. 11819, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 968, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 13998, effective August 12, 1986; amended in R86-19 at 10 Ill. Reg. 20630, effective December 2, 1986; amended in R86-28 at 11 Ill. Reg. 6017, effective March 24, 1987; amended in R86-46 at 11 Ill. Reg. 13435, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19280, effective November 12, 1987; amended in R87-26 at 12 Ill. Reg. 2450, effective January 15, 1988; amended in R87-39 at 12 Ill. Reg. 12999,

effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 362, effective December 27, 1988; amended in R89-1 at 13 Ill. Reg. 18278, effective November 13, 1989; amended in R89-2 at 14 Ill. Reg. 3075, effective February 20, 1990; amended in R89-9 at 14 Ill. Reg. 6225, effective April 16, 1990; amended in R90-10 at 14 Ill. Reg. 16450, effective September 25, 1990; amended in R90-17 at 15 Ill. Reg. , effective ; amended in R90-11 at 15 Ill. Reg. , effective

SUBPART B: DEFINITIONS

Section 720.111References

a) The following publications are incorporated by reference:

ANSI. Available from the American National Standards Institute, 1430 Broadway, New York, New York 10018, (212) 354-3300:

ANSI B31.3 and B31.4. See ASME/ANSI B31.3 and B31.4

API. Available from the American Petroleum Institute, 1220 L Street, N.W., Washington, D.C. 20005, (202) 682-8000:

"Guide for Inspection of Refinery Equipment, Chapter XIII, Atmospheric and Low Pressure Storage Tanks," 4th Edition, 1981, reaffirmed December, 1987.

"Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems," API Recommended Practice 1632, Second Edition, December, 1987.

"Installation of Underground Petroleum Storage Systems," API Recommended Practice 1615, Fourth Edition, November, 1987.

<u>APTI. Available from the Air and Waste Management Association, Box 2861, Pittsburgh, PA 15230, (412) 232-3444:</u>

<u>APTI Course 415: Control of Gaseous Emissions, EPA Publication EPA-450/2-81-005, December, 1981.</u>

ASME. Available from the American Society of Mechanical Engineers, 345 East 47th Street, New

York, NY 10017, (212) 705-7722:

"Chemical Plant and Petroleum Refinery Piping", ASME/ANSI B31.3-1987, as supplemented by B31.3a-1988 and B31.3b-1988. Also available from ANSI.

"Liquid Transportation Systems for Hydrocarbons, Liquid Petroleum Gas, Anhydrous Ammonia, and Alcohols", ASME/ANSI B31.4-1986, as supplemented by B31.4a-1987. Also available from ANSI.

ASTM. Available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103, (215) 299-5400:

~~"ASTM Standard Test Methods for Flash Point of Liquids by Setaflash Closed Tester," ASTM Standard D-3828-87~~.

ASTM D93-85,~~"ASTM~~ Standard Test Methods for Flash Point by Pensky-Martens Closed Tester~~,"~~ ~~ASTM Standard D-93-79 or D-93-80~~approved October 25, 1985.

ASTM D1946-90, Standard Practice for Analysis of Reformed Gas by Gas Chromatography, Approved March 30, 1990.

ASTM D2267-88, Standard Test Method for Aromatics in Light Naphthas and Aviation Gasolines by Gas Chromatography, approved November 17, 1988.

ASTM D2382-88, Standard Test Method for Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High Precision Method), approved October 31, 1988.

ASTM D2879-86, Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, approved October 31, 1986.

ASTM D3828-87, Standard Test Methods for Flash Point of Liquids by Setaflash Closed Tester, approved December 14, 1988.

ASTM E168-88, Standard Practices for General Techniques of Infrared Quantitative Analysis, approved May 27, 1988.

ASTM E169-87, Standard Practices for General Techniques of Ultraviolet-Visible Quantitative Analysis, approved February 1, 1987.

ASTM E260-85, Standard Practice for Packed Column Gas Chromatography, approved June 28, 1985.

GPO. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20401, (202) 783-3238:

Standard Industrial Classification Manual (1972), and 1977 Supplement, republished in 1983

NACE. Available from the National Association of Corrosion Engineers, 1400 South Creek Dr., Houston, TX 77084, (713) 492-0535:

"Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems", NACE Recommended Practice RP0285-85, approved March, 1985.

NFPA. Available from the National Fire Protection Association, Batterymarch Park, Boston, MA 02269, (617) 770-3000 or (800) 344-3555:

"Flammable and Combustible Liquids Code" NFPA 30, issued July 17, 1987. Also available from ANSI.

NTIS. Available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, (703) 487-4600:

"Generic Quality Assurance Project Plan for Land Disposal Restrictions Program", EPA/530-SW-87-011, March 15, 1987. (Document number PB 88-170766.)

"Methods for Chemical Analysis of Water and Wastes", Third Edition, March, 1983. (Document number PB 84-128677)

"Petitions to Delist Hazardous Wastes -- A Guidance Manual", EPA/530-SW-85-003, April, 1985. (Document Number PB 85-194488

"Procedures Manual for Ground Water Monitoring at Solid Waste Disposal Facilities", EPA-530/SW-611, 1977. (Document number PB 84-174820)

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication number SW-846 (Second Edition, 1982 as amended by Update I (April, 1984) and Update II (April, 1985)) (Document number PB 87-120291)

STI. Available from the Steel Tank Institute, 728 Anthony Trail, Northbrook, IL 60062, (312) 498-1980:

"Standard for Dual Wall Underground Steel Storage Tanks" (1986).

USEPA. Available from United States Environmental Protection Agency, Office of Drinking Water, State Programs Division, WH 550 E, Washington, D.C. 20460:

"Technical Assistance Document: Corrosion, Its Detection and Control in Injection Wells", EPA 570/9-87-002, August, 1987.

b) Code of Federal Regulations. Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20401, (202) 783-3238:

10 CFR 20, Appendix B ~~(1989)~~(1990)

40 CFR 60 (1990)

40 CFR 61, Subpart V (1990)

40 CFR 136 ~~(1989)~~(1990)

40 CFR 142 ~~(1989)~~(1990)

40 CFR 220 ~~(1989)~~(1990)

40 CFR 260.20 ~~(1989)~~(1990)

40 CFR 264 ~~(1989)~~(1990)

40 CFR 302.4, 302.5 and 302.6 ~~(1989)~~(1990)

40 CFR 761 ~~(1989)~~(1990)

c) Federal Statutes

Section 3004 of the Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.), as amended through December 31, 1987.

d) This Section incorporates no later editions or amendments.

(Source: Amended at 15 Ill. Reg. , effective

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

PART 721
IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

SUBPART A: GENERAL PROVISIONS

SUPBART B: CRITERIA FOR IDENTIFYING THE CHARACTERISTICS OF HAZARDOUS WASTE AND FOR LISTING HAZARDOUS WASTES

SUBPART C: CHARACTERISTICS OF HAZARDOUS WASTE

SUBPART D: LISTS OF HAZARDOUS WASTE

Appendix G	Basis for Listing Hazardous Wastes
Appendix H	Hazardous Constituents
Appendix I	Wastes Excluded under Section 720.120 and 720.122
Table A	Wastes Excluded from Non-Specific Sources
Table B	Wastes Excluded from Specific Sources
Table C	Wastes Excluded From Commercial Chemical Products, Off-Specification Species, Container Residues, and Soil Residues Thereof
Appendix J	Method of Analysis for Chlorinated Dibenzo-p-Dioxins and Dibenzofurans
Appendix Z	Table to Section 721.102

AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1989, ch. 111 1/2, pars. 1022.4 and 1027).

SOURCE: Adopted in R81-22, 43 PCB 427, at 5 Ill. Reg. 9781, effective as noted in 35 Ill. Adm. Code 700.106; amended and codified in R81-22, 45 PCB 317, at 6 Ill. Reg. 4828, effective as noted in 35 Ill. Adm. Code 700.106; amended in R82-18, 51 PCB 31, at 7 Ill. Reg. 2518, effective February 22, 1983; amended in R82-19, 53 PCB 131, at 7 Ill. Reg. 13999, effective October 12, 1983; amended in R84-34, 61 PCB 247, at 8 Ill. Reg. 24562, effective December 11, 1984; amended in R84-9, at 9 Ill. Reg. 11834, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 998, effective January 2, 1986; amended in R85-2 at 10 Ill. Reg. 8112, effective May 2, 1986; amended in R86-1 at 10 Ill. Reg. 14002, effective August 12, 1986; amended in R86-19 at 10 Ill. Reg. 20647, effective December 2, 1986; amended in R86-28 at 11 Ill. Reg. 6035, effective March 24, 1987; amended in R86-46 at 11 Ill. Reg. 13466, effective August 4, 1987; amended in R87-32 at 11 Ill. Reg. 16698, effective September 30, 1987; amended in R87-5 at 11 Ill. Reg. 19303, effective November 12, 1987; amended in R87-26 at 12 Ill. Reg. 2456, effective January 15, 1988; amended in R87-30 at 12 Ill. Reg. 12070, effective July 12, 1988; amended in R87-39 at 12 Ill. Reg. 13006, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 382, effective December 27, 1988; amended in R89-1 at 13 Ill. Reg. 18300, effective November 13, 1989; amended in R90-2 at 14 Ill. Reg. 14401, effective August 22, 1990; amended in R90-10 at 14 Ill. Reg. 16472, effective September 25, 1990; amended in R90-17 at 15 Ill. Reg. , effective ; amended in R90-11 at 15 Ill. Reg. , effective

SUBPART A: GENERAL PROVISIONS

Section 721.104 Exclusions

a) Materials which are not solid wastes. The following materials are not solid wastes for the purpose of this Part:

1) Sewage:

   A) Domestic sewage; and

   B) Any mixture of domestic sewage and other waste that passes through a sewer system to publicly-owned treatment works for treatment. "Domestic sewage" means untreated sanitary wastes that pass through a sewer system.

2) Industrial wastewater discharges that are point source discharges with NPDES permits issued by the Agency pursuant to Section 12(f) of the Environmental Protection Act and 35 Ill. Adm. Code 309.

   BOARD NOTE: This exclusion applies only to the actual point source discharge. It does not exclude industrial wastewaters while they are being collected, stored or treated before discharge, nor does it exclude sludges that are generated by industrial wastewater treatment.

3) Irrigation return flows.

4) Source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.)

5) Materials subjected to in-situ mining techniques which are not removed from the ground as part of the extraction process.

6) Pulping liquors (i.e., black liquor) that are reclaimed in a pulping liquor recovery furnace and then reused in the pulping process, unless accumulated speculatively as defined in Section 721.101(c);

7) Spent sulfuric acid used to produce virgin sulfuric acid, unless it is accumulated speculatively as defined in Section 721.101(c).

8) Secondary materials that are reclaimed and returned to the original process or processes in which they were generated where they are reused in the production process, provided:

   A) Only tank storage is involved, and the entire process through completion of reclamation is closed by being entirely connected with pipes or other comparable enclosed means of

conveyance;

B) Reclamation does not involve controlled flame combustion (such as occurs in boilers, industrial furnaces or incinerators);

C) The secondary materials are never accumulated in such tanks for over twelve months without being reclaimed; and

D) The reclaimed material is not used to produce a fuel, or used to produce products that are used in a manner constituting disposal.

b) Solid wastes which are not hazardous wastes. The following solid wastes are not hazardous wastes:

1) Household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered (e.g., refuse-derived fuel) or reused. "Household waste" means any waste material (including garbage, trash and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day-use recreation areas). A resource recovery facility managing municipal solid waste shall not be deemed to be treating, storing, disposing of or otherwise managing hazardous wastes for the purposes of regulation under this Part, if such facility:

A) Receives and burns only:

i) Household waste (from single and multiple dwellings, hotels, motels and other residential sources) and

ii) Solid waste from commercial or industrial sources that does not contain hazardous waste; and

B) Such facility does not accept hazardous waste and the owner or operator of such facility has established contractural requirements or other appropriate notification or inspection procedures to assure that hazardous wastes are not received at or burned in such facility.

2) Solid wastes generated by any of the following and which are returned to the soil as fertilizers:

A) The growing and harvesting of agricultural crops.

B) The raising of animals, including animal manures.

3) Mining overburden returned to the mine site.

4) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste generated primarily from the combustion of coal or other fossil fuels.

5) Drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas or geothermal energy.

6) Chromium wastes:

A) Wastes which fail the test for the toxicity characteristic (Section 721.124 and Appendix B) because chromium is present or are listed in Subpart D due to the presence of chromium, which do not fail the test for the toxicity characteristic for any other constituent or are not listed due to the presence of any other constituent, and which do not fail the test for any other characteristic, if it is shown by a waste generator or by waste generators that:

i) The chromium in the waste is exclusively (or nearly exclusively) trivalent chromium; and

ii) The waste is generated from an industrial process which uses trivalent chromium exclusively (or nearly exclusively) and the process does not generate hexavalent chromium; and

iii) The waste is typically and frequently managed in non-oxidizing environments.

B) Specific wastes which meet the standard in subsections (b)(6)(A)(i), (ii) and (iii) (so long as they do not fail the test for the characteristic of EP toxicity, and do not fail the test for any other characteristic) are

i) Chrome (blue) trimmings generated by the following subcategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

ii) Chrome (blue) shavings generated by the following subcategories of the leather tanning and finishing industry; hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

iii) Buffing dust generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue.

iv) Sewer screenings generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

v) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; retan/wet finish; no beamhouse; through-the-blue; and shearling.

vi) Wastewater treatment sludges generated by the following subcategories of the leather tanning and finishing industry: hair pulp/chrome tan/retan/wet finish; hair save/chrome tan/retan/wet finish; and through-the-blue.

vii) Waste scrap leather from the leather tanning industry, the shoe manufacturing industry, and other leather product manufacturing industries.

viii) Wastewater treatment sludges from the production of titanium dioxide pigment using chromium-bearing ores by the chloride process.

7) Solid waste from the extraction, beneficiation and processing of ores and minerals (including coal), including phosphate rock and overburden from the mining of uranium ore. For purposes of this subsection, beneficiation of ores and minerals is restricted to the following activities: crushing, grinding, washing, dissolution, crystallization, filtration, sorting, sizing, drying, sintering, pelletizing, briquetting, calcining to remove water or carbon dioxide, roasting, autoclaving or chlorination in preparation for leaching (except where the roasting or autoclaving or chlorination)/leaching sequence produces a final or intermediate product that does not undergo further beneficiation or processing), gravity concentration, magnetic separation, electrostatic separation, floatation, ion exchange, solvent extraction, electrowinning, precipitation, amalgamation, and heap, dump, vat tank and in situ leaching. For the purposes of this subsection, solid waste from the processing of ores and minerals will include only the following wastes:

A) Slag from primary copper processing;

B) Slag from primary lead processing;

C) Red and brown muds from bauxite refining;

D) Phosphogypsum from phosphoric acid production;

E) Slag from elemental phosphorus production;

F) Gasifier ash from coal gasification;

G) Process wastewater from coal gasification;

H) Calcium sulfate wastewater treatment plant sludge from primary copper processing;

I) Slag tailings from primary copper processing;

J) Fluorogypsum from hydrofluoric acid production;

K) Process wastewater from hydrofluoric acid

production;

L) Air pollution control dust/sludge from iron blast furnaces;

M) Iron blast furnace slag;

N) Treated residue from roasting/leaching of chrome ore;

O) Process wastewater from primary magnesium processing by the anhydrous process;

P) Process wastewater from phosphoric acid production;

Q) Basic oxygen furnace and open hearth furnace air pollution control dust/sludge from carbon steel production;

R) Basic oxygen furnace and open hearth furnace slag from carbon steel production;

S) Chloride processing waste solids from titanium tetrachloride production;

T) Slag from primary zinc smelting; and,

U) Until June 30, 1991, process wastewater, acid plant blowdown and wastewater treatment plant solids from primary zinc smelting and refining, except for wastewater treatment plant solids which are hazardous by characteristic and which are not processed.

8) Cement kiln dust waste.

9) Solid waste which consists of discarded wood or wood products which fails the test for the toxicity characteristic solely for arsenic and which is not a hazardous waste for any other reason or reasons if the waste is generated by persons who utilize the arsenical-treated wood and wood products for these materials' intended end use.

10) Petroleum-contaminated media and debris that fail the test for the toxicity characteristic of Section 721.124 (hazardous waste codes D018 through D043 only) and are subject to corrective action regulations under 35 Ill. Adm. Code 731.

c) Hazardous wastes which are exempted from certain regulations. A hazardous waste which is generated in a product or raw material storage tank, a product or raw material transport vehicle or vessel, a product or raw material pipeline, or in a manufacturing process unit or an associated non-waste-treatment manufacturing unit, is not subject to regulation under 35 Ill. Adm. Code 702, 703, 705 and 722 through 725 and 728 or to the notification requirements of Section 3010 of RCRA until it exits the unit in which it was generated, unless the unit is a surface impoundment, or unless the hazardous waste remains in the unit more than 90 days after the unit ceases to be operated for manufacturing, or for storage or transportation of product or raw materials.

d) Samples

1) Except as provided in subsection (d)(2), a sample of solid waste or a sample of water, soil or air, which is collected for the sole purpose of testing to determine its characteristics or composition, is not subject to any requirements of this Part or 35 Ill. Adm. Code 702, 703, 705 and 722 through 728. The sample qualifies when:

A) The sample is being transported to a laboratory for the purpose of testing; or

B) The sample is being transported back to the sample collector after testing; or

C) The sample is being stored by the sample collector before transport to a laboratory for testing; or

D) The sample is being stored in a laboratory before testing; or

E) The sample is being stored in a laboratory for testing but before it is returned to the sample collector; or

F) The sample is being stored temporarily in the laboratory after testing for a specific purpose (for example, until conclusion of a court case or enforcement action where further testing of the sample may be necessary).

2) In order to qualify for the exemption in subsection (d)(1)(A) and (B), a sample collector

shipping samples to a laboratory and a laboratory returning samples to a sample collector must:

A) Comply with U.S. Department of Transportation (DOT), U.S. Postal Service (USPS) or any other applicable shipping requirements; or

B) Comply with the following requirements if the sample collector determines that DOT, USPS or other shipping requirements do not apply to the shipment of the sample:

i) Assure that the following information accompanies the sample: The sample collector's name, mailing address and telephone number; the laboratory's name, mailing address and telephone number; the quantity of the sample; the date of the shipment; and a description of the sample.

ii) Package the sample so that it does not leak, spill or vaporize from its packaging.

3) This exemption does not apply if the laboratory determines that the waste is hazardous but the laboratory is no longer meeting any of the conditions stated in subsection (d)(1).

e) Treatability study samples.

1) Except as is provided in subsection (e)(2), persons who generate or collect samples for the purpose of conducting treatability studies, as defined in 35 Ill. Adm. Code 720.110, are not subject to any requirement of 35 Ill. Adm. Code 721 through 723 or to the notification requirements of Section 3010 of the Resource Conservation and Recovery Act. Nor are such samples included in the quantity determinations of Section 721.105 and 35 Ill. Adm. Code 722.134(d) when:

A) The sample is being collected and prepared for transportation by the generator or sample collector; or,

B) The sample is being accumulated or stored by the generator or sample collector prior to transportation to a laboratory or testing facility; or

C) The sample is being transported to the laboratory or testing facility for the purpose of conducting a treatability study.

2) The exemption in subsection (e)(1) is applicable to samples of hazardous waste being collected and shipped for the purpose of conducting treatability studies provided that:

A) The generator or sample collector uses (in "treatability studies") no more than 1000 kg of any non-acute hazardous waste, 1 kg of acute hazardous waste or 250 kg of soils, water or debris contaminated with acute hazardous waste for each process being evaluated for each generated wastestream; and

B) The mass of each shipment does not exceed 1000 kg of non-acute hazardous waste, 1 kg of acute hazardous waste or 250 kg of soils, water or debris contaminated with acute hazardous waste; and

C) The sample must be packaged so that it does not leak, spill or vaporize from its packaging during shipment and the requirements of subsections (i) or (ii) are met.

i) The transportation of each sample shipment complies with U.S. Department of Transportation (DOT), U.S. Postal Service (USPS) or any other applicable shipping requirements; or

ii) If the DOT, USPS or other shipping requirements do not apply to the shipment of the sample, the following information must accompany the sample: The name, mailing address and telephone number of the originator of the sample; the name, address and telephone number of the facility that will perform the treatability study; the quantity of the sample; the date of the shipment; and, a description of the sample, including its USEPA hazardous waste number.

D) The sample is shipped to a laboratory or testing facility which is exempt under subsection (f) or has an appropriate RCRA

permit or interim status.

E) The generator or sample collector maintains the following records for a period ending 3 years after completion of the treatability study:

i) Copies of the shipping documents;

ii) A copy of the contract with the facility conducting the treatability study;

iii) Documentation showing: The amount of waste shipped under this exemption; the name, address and USEPA identification number of the laboratory or testing facility that received the waste; the date the shipment was made; and, whether or not unused samples and residues were returned to the generator.

F) The generator reports the information required in subsection (e)(2)(E)(iii) in its report under 35 Ill. Adm. Code 722.141.

3) The Agency may grant requests, on a case-by-case basis, for quantity limits in excess of those specified in subsection (e)(2)(A), for up to an additional 500 kg of any non-acute hazardous waste, 1 kg of acute hazardous waste and 250 kg of soils, water or debris contaminated with acute hazardous waste, to conduct further treatability study evaluation when: There has been an equipment or mechanical failure during the conduct of the treatability study; there is need to verify the results of a previously conducted treatability study; there is a need to study and analyze alternative techniques within a previously evaluated treatment process; or, there is a need to do further evaluation of an ongoing treatability study to determine final specifications for treatment. The additional quantities allowed are subject to all the provisions in subsections (e)(1) and (e)(2)(B) through (F). The generator or sample collector must apply to the Agency and provide in writing the following information:

A) The reason why the generator or sample collector requires additional quantity of sample for the treatability study evaluation and the additional quantity needed;

B) Documentation accounting for all samples of hazardous waste from the wastestream which have been sent for or undergone treatability studies, including the date each previous sample was shipped, the quantity of each previous shipment, the laboratory or testing facility to which it was shipped, what treatability study processes were conducted on each sample shipped, and the available results of each treatability study;

C) A description of the technical modifications or change in specifications which will be evaluated and the expected results;

D) If such further study is being required due to equipment or mechanical failure, the applicant must include information regarding the reason for the failure or breakdown and also include what procedures or equipment have been made to protect against further breakdowns; and,

E) Such other information as the Agency determines is necessary.

4) Final Agency determinations pursuant to this subsection may be appealed to the Board.

f) Samples undergoing treatability studies at laboratories or testing facilities. Samples undergoing treatability studies and the laboratory or testing facility conducting such treatability studies (to the extent such facilities are not otherwise subject to RCRA requirements) are not subject to any requirement of this Part, or of 35 Ill. Adm. Code 702, 703, 705, 722 through 726, and 728, or to the notification requirements of Section 3010 of the Resource Conservation and Recovery Act, provided that the requirements of subsections (f)(1) through (f)(11) are met. A mobile treatment unit may qualify as a testing facility subject to subsections (f)(1) through (f)(11). Where a group of mobile treatment units are located at the same site, the limitations specified in subsections (f)(1) through (f)(11) apply to the entire group of mobile treatment units collectively as if the group were one mobile treatment unit.

1) No less than 45 days before conducting treatability studies, the facility notifies the Agency in writing that it intends to conduct

treatability studies under this subsection.

2) The laboratory or testing facility conducting the treatability study has a USEPA identification number.

3) No more than a total of 250 kg of "as received" hazardous waste is subjected to initiation of treatability studies in any single day. "As received" waste refers to the waste as received in the shipment from the generator or sample collector.

4) The quantity of "as received" hazardous waste stored at the facility for the purpose of evaluation in treatability studies does not exceed 1000 kg, the total of which can include 500 kg of soils, water or debris contaminated with acute hazardous waste or 1 kg of acute hazardous waste. This quantity limitation does not include:

   A) Treatability study residues; and,

   B) Treatment materials (including nonhazardous solid waste) added to "as received" hazardous waste.

5) No more than 90 days have elapsed since the treatability study for the sample was completed, or no more than one year has elapsed since the generator or sample collector shipped the sample to the laboratory or testing facility, whichever date first occurs.

6) The treatability study does not involve the placement of hazardous waste on the land or open burning of hazardous waste.

7) The facility maintains records for 3 years following completion of each study that show compliance with the treatment rate limits and the storage time and quantity limits. The following specific information must be included for each treatability study conducted:

   A) The name, address and USEPA identification number of the generator or sample collector of each waste sample;

   B) The date the shipment was received;

   C) The quantity of waste accepted;

D) The quantity of "as received" waste in storage each day;

E) The date the treatment study was initiated and the amount of "as received" waste introduced to treatment each day;

F) The date the treatability study was concluded;

G) The date any unused sample or residues generated from the treatability study were returned to the generator or sample collector or, if sent to a designated facility, the name of the facility and the USEPA identification number.

8) The facility keeps, on-site, a copy of the treatability study contract and all shipping papers associated with the transport of treatability study samples to and from the facility for a period ending 3 years from the completion date of each treatability study.

9) The facility prepares and submits a report to the Agency by March 15 of each year that estimates the number of studies and the amount of waste expected to be used in treatability studies during the current year, and includes the following information for the previous calendar year:

A) The name, address and USEPA identification number of the facility conducting the treatability studies;

B) The types (by process) of treatability studies conducted;

C) The names and addresses of persons for whom studies have been conducted (including their USEPA identification numbers);

D) The total quantity of waste in storage each day;

E) The quantity and types of waste subjected to treatability studies;

F) When each treatability study was conducted;

G) The final disposition of residues and unused

sample from each treatability study;

10) The facility determines whether any unused sample or residues generated by the treatability study are hazardous waste under Section 721.103 and, if so, are subject to 35 Ill. Adm. Code 702, 703 and 721 through 728, unless the residues and unused samples are returned to the sample originator under the subsection (e) exemption.

11) The facility notifies the Agency by letter when the facility is no longer planning to conduct any treatability studies at the site.

(Source: Amended at 15 Ill. Reg. , effective

Section 721.106 Requirements for Recyclable Materials

a) Recyclable materials:

1) Hazardous wastes that are recycled are subject to the requirements for generators, transporters and storage facilities of subsections (b) and (c), except for the materials listed in subsections (a)(2) and (a)(3). Hazardous wastes that are recycled will be known as "recyclable materials".

2) The following recyclable materials are not subject to the requirements of this Section but are regulated under 35 Ill. Adm. Code 726.Subparts C through G and all applicable provisions in 35 Ill. Adm. Code 702, 703 and 705.

A) Recyclable materials used in a manner constituting disposal (35 Ill. Adm. Code 726.Subpart C);

B) Hazardous wastes burned for energy recovery in boilers and industrial furnaces that are not regulated under 35 Ill. Adm. Code 724 or 725.Subpart O (35 Ill. Adm. Code 726.Subpart D.)

C) Used oil that exhibits one or more of the characteristics of hazardous waste and is burned for energy recovery in boilers or industrial furnaces that are not regulated under 35 Ill. Adm. Code 724 or 725.Subpart O. (35 Ill. Adm. Code 726.Subpart E);

D) Recyclable materials from which precious

metals are reclaimed (35 Ill. Adm. Code 726.Subpart F);

E) Spent lead-acid batteries that are being reclaimed (35 Ill. Adm. Code 726.Subpart G).

3) The following recyclable materials are not subject to regulation under 35 Ill. Adm. Code 722 through 726, 728, or 702, 703 or 705 and are not subject to the notification requirements of Section 3010 of the Resource Conservation and Recovery Act:

A) Industrial ethyl alcohol that is reclaimed except that, unless provided otherwise in an international agreement as specified in 35 Ill. Adm. Code 722.158:

i) A person initiating a shipment for reclamation in a foreign country, and any intermediary arranging for the shipment, shall comply with the requirements applicable to a primary exporter in 35 Ill. Adm. Code 722.153, 722.156(a)(1) through (a)(4), (a)(6) and (b), and 722.157, shall export such materials only upon consent of the receiving country and in conformance with the USEPA Acknowledgement of Consent as defined in 35 Ill. Adm. Code 722.Subpart E, and shall provide a copy of the USEPA Acknowledgement of Consent to the shipment to the transporter transporting the shipment for export;

ii) Transporters transporting a shipment for export shall not accept a shipment if the transporter knows the shipment does not conform to the USEPA Acknowledgement of Consent, shall ensure that a copy of the USEPA Acknowledgement of Consent accompanies the shipment and shall ensure that it is delivered to the facility designated by the person initiating the shipment.

B) Used batteries (or used battery cells) returned to a battery manufacturer for regeneration;

C) Used oil that exhibits one or more of the characteristics of hazardous waste but is recycled in some other manner than being

burned for energy recovery;

D) Scrap metal;

E) Fuels produced from the refining of oil-bearing hazardous wastes along with normal process streams at a petroleum refining facility if such wastes result from normal petroleum refining, production and transportation practices;

F) Oil reclaimed from hazardous waste resulting from normal petroluem refining, production and transportation practices, which oil is to be refined along with normal process streams at a petroleum refining facility;

G) Coke and coal tar from the iron and steel industry that contains USEPA hazardous waste number K087 (decanter tank tar sludge from coking operations) (Section 721.132) from the iron and steel production process;

H) Petroleum refining wastes.

i) Hazardous waste fuel produced from oil-bearing hazardous wastes from petroleum refining, production or transportation practices, or produced from oil reclaimed from such hazardous wastes, where such hazardous wastes are reintroduced into a process that does not use distillation or does not produce products from crude oil so long as the resulting fuel meets the used oil specification under 35 Ill. Adm. Code 726.140(e) and so long as no other hazardous wastes are used to produce the hazardous waste fuel;

ii) Hazardous waste fuel produced from oil-bearing hazardous waste from petroleum refining production and transportation practices, where such hazardous wastes are reintroduced into a refining process after a point at which contaminants are removed, so long as the fuel meets the used oil fuel specification under 35 Ill. Adm. Code 726.140(e); and

iii) Oil reclaimed from oil-bearing hazardous wastes from petroleum refining,

production and transportation practices, which reclaimed oil is burned as a fuel without reintroduction to a refining process, so long as the reclaimed oil meets the used oil fuel specification under 35 Ill. Adm. Code 726.140(e); and

I) Petroleum coke produced from petroleum refinery hazardous wastes containing oil at the same facility at which such wastes were generated, unless the resulting coke product exceeds one or more of the characteristics of hazardous waste in Subpart C.

b) Generators and transporters of recyclable materials are subject to the applicable requirements of 35 Ill. Adm. Code 722 and 723 and the notification requirements under Section 3010 of the Resource Conservation and Recovery Act, except as provided in subsection (a).

c) Storage and recycling:

1) Owners or operators of facilities that store recyclable materials before they are recycled are regulated under all applicable provisions of 35 Ill. Adm. Code 724.Subparts A through L, AA and BB and 725.Subparts A through L, AA and BB, 726, 728, 702, 703 and 705 and the notification requirement under Section 3010 of the Resource Conservation and Recovery Act, except as provided in subsection (a). (The recycling process itself is exempt from regulation, except as provided in subsection (d).)

2) Owners or operators of facilities that recycle recyclable materials without storing them before they are recycled are subject to the following requirements, except as provided in subsection (a).

A) Notification requirements under Section 3010 of the Resource Conservation and Recovery Act.

B) 35 Ill. Adm. Code 725.171 and 725.172 (dealing with the use of the manifest and manifest discrepancies)

C) Subsection (d).

d) Owners or operators of facilities required to have a RCRA permit pursuant to 35 Ill. Adm. Code 703 with hazardous waste management units which recycle

hazardous wastes are subject to 35 Ill. Adm. Code 724.Subpart AA and BB and 725.Subpart AA and BB.

(Source: Amended at 15 Ill. Reg. , effective

SUBPART C: CHARACTERISTICS OF HAZARDOUS WASTE

Section 721.120 General

a) A solid waste, as defined in Section 721.102, which is not excluded from regulation as a hazardous waste under Section 721.104(b), is a hazardous waste if it exhibits any of the characteristics identified in this Subpart.

~~(Board Note:~~BOARD NOTE: 35 Ill. Adm. Code 722.111 sets forth the generator's responsibility to determine whether the generator's waste exhibits one or more characteristics identified in this Subpart.~~)~~

b) A hazardous waste which is identified by a characteristic in this Subpart~~, but is not listed as a hazardous waste in Subpart D,~~ is assigned ~~the~~every USEPA Hazardous Waste Number which is applicable as set forth in the ~~respective characteristic~~ in this Subpart. This number must be used in complying with the notification requirements of Section 3010 of the Resource Conservation and Recovery Act and ~~certain~~all applicable recordkeeping and reporting requirements under 35 Ill. Adm. Code 702, 703, 722 through 725 and 728.

c) For purposes of this Subpart, a sample obtained using any of the applicable sampling methods specified in Appendix A is a representative sample within the meaning of 35 Ill. Adm. Code 720.

~~(Board Note:~~BOARD NOTE: Since the Appendix A sampling methods are not being formally adopted, a person who desires to employ an alternative sampling method is not required to demonstrate the equivalency of the person's method under the procedures set forth in 35 Ill. Adm. Code 720.121.~~)~~

(Source: Amended at 15 Ill. Reg. , effective

Section 721.121 Characteristic of Ignitability

a) A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:

1) It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume, and has a flash point less than 60°C (140°F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ~~the American Society of Testing Materials (ASTM) Standard D-93-79 or D-93-80 (incorporated by reference, see §720.111)~~ASTM D-93, incorporated by reference in 35 Ill. Adm. Code 720.111, or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D-3228~~3278-78 (incorporated by reference, see §720.111)~~, incorporated by reference in 35 Ill. Adm. Code 720.111, or as determined by an equivalent test method approved by the Board (~~§~~35 Ill. Adm. Code 720.120).

2) It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.

3) It is an ignitable compressed gas as defined in 49 CFR 173.300, incorporated by reference in 35 Ill. Adm. Code 720.111, and as determined by the test methods described in that regulation or equivalent test methods approved by the Board (~~§~~35 Ill. Adm. Code 720.120).

4) It is an oxidizer as defined in 49 CFR 173.151, incorporated by reference in 35 Ill. Adm. Code 720.111.

b) A solid waste that exhibits the characteristic of ignitability~~, but is not listed as a hazardous waste in Subpart D,~~ has the EPA Hazardous Waste Number of D001.

(Source: Amended at 15 Ill. Reg. , effective

Section 721.122 Characteristic of Corrosivity

a) A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:

1) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using either an EPA test method or an equivalent test method (~~§~~35 Ill. Adm. Code

720.121). The EPA test method for pH is specified as Method 5.2 in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" ~~(incorporated by reference, see §720.111),~~ incorporated by reference in 35 Ill. Adm. Code 720.111.

2) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55°C (130°F) as determined by the test method specified in NACE (National Association of Corrosion Engineers) Standard TM-01-69 as standardized in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" ~~(incorporated by reference, see §720.111)~~, incorporated by reference in 35 Ill. Adm. Code 720.111, or an equivalent test method (~~§~~35 Ill. Adm. Code 720.121).

b) A solid waste that exhibits the characteristic of corrosivity ~~, but is not listed as a hazardous waste in Subpart D,~~ has the EPA Hazardous Waste Number of D002.

(Source: Amended at 15 Ill. Reg. , effective

Section 721.123 Characteristic of Reactivity

a) A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has any of the following properties:

1) It is normally unstable and readily undergoes violent change without detonating.

2) It reacts violently with water.

3) It forms potentially explosive mixtures with water.

4) When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

5) It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5 can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.

6) It is capable of detonation or explosive reaction

if it is subjected to a strong initiating source or if heated under confinement.

7) It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.

8) It is a forbidden explosive as defined in 49 CFR 173.51, or a Class A explosive as defined in 49 CFR 173.53 or a Class B explosive as defined in 49 CFR 173.88, incorporated by reference in 35 Ill. Adm. Code 720.111.

b) A solid waste that exhibits the characteristic of reactivity ~~, but is not listed as a hazardous waste in Subpart D,~~ has the EPA Hazardous Waste Number of D003.

(Source: Amended at 15 Ill. Reg. , effective

Section 721.124 Toxicity Characteristic

a) A solid waste exhibits the characteristic of toxicity if, using the test methods described in Appendix B or equivalent methods approved by the Agency under the procedures set forth in Sections 720.120 and 720.121, the extract from a representative sample of the waste contains any of the contaminants listed in the table in subsection (b) at a concentration equal to or greater than the respective value given in that table. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering using the methodology outlined in Appendix B, is considered to be the extract for the purpose of this Section.

BOARD NOTE: Generators are required to use the TCLP test for the hazardous waste determination under 35 Ill. Adm. Code 722.120 as of September 25, 1990. Provided, however, that, as specified at 55 Fed. Reg. 11850, March 29, 1990, small quantity generators of 100 to 1000 kg/ month, as defined in 35 Ill. Adm. Code 721.105, may continue to use the EP toxicity test until March 29, 1991. The EP toxicity test is Method 1310 in SW 846, "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", incorporated by reference in 35 Ill. Adm. Code 720.111. The reference to the "EP toxicity test" in 35 Ill. Adm. Code 808.410(b)(4) is to be understood as referencing the test required by this Section.

b) A solid waste that exhibits the characteristic of toxicity~~, but is not listed as a hazardous waste in~~

~~Subpart D,~~ has the USEPA Hazardous Waste Number specified in the following table which corresponds to the toxic contaminant causing it to be hazardous.

MAXIMUM CONCENTRATION OF CONTAMINANTS
FOR THE TOXICITY CHARACTERISTIC

USEPA Hazardous Waste No.	Contaminant	CAS Number	Note	Regulatory Level (mg/L)
D004	Arsenic	7440-38-2		5.0
D005	Barium	7440-39-3		100.0
D018	Benzene	71-43-2		0.5
D006	Cadmium	7440-43-9		1.0
D019	Carbon tetrachloride	56-23-5		0.5
D020	Chlordane	57-74-9		0.03
D021	Chlorobenzene	108-90-7		100.0
D022	Chloroform	67-66-3		6.0
D007	Chromium	7440-47-3		5.0
D023	o-Cresol	95-48-7	4	200.0
D024	m-Cresol	108-39-4	4	200.0
D025	p-Cresol	106-44-5	4	200.0
D026	Cresol		4	200.0
D016	2,4-D	94-75-7		10.0
D027	1,4-Dichlorobenzene	106-46-7		7.5
D028	1,2-Dichloroethane	107-06-2		0.5
D029	1,1-Dichloroethylene	75-35-4		0.7
D030	2,4-Dinitrotoluene	121-14-2	3	0.13
D012	Endrin	72-20-8		0.02
D031	Heptachlor (and its epoxide)	76-44-8		0.008
D032	Hexachlorobenzene	118-74-1	3	0.13
D033	Hexachlorobutadiene	87-68-3		0.5
D034	Hexachloroethane	67-72-1		3.0
D008	Lead	7439-92-1		5.0
D013	Lindane	58-89-9		0.4
D009	Mercury	7439-97-6		0.2
D014	Methoxychlor	72-43-5		10.0
D035	Methyl ethyl ketone	78-93-3		200.0
D036	Nitrobenzene	98-95-3		2.0
D037	Pentachlorophenol	87-86-5		100.0
D038	Pyridine	110-86-1	3	5.0

D010	Selenium	7782-49-2	1.0
D011	Silver	7440-22-4	5.0
D039	Tetrachloro-ethylene	127-18-4	0.7
D015	Toxaphene	8001-35-2	0.5
D040	Trichloro-ethylene	79-01-6	0.5
D041	2,4,5-Trichloro-phenol	95-95-4	400.0
D042	2,4,6-Trichloro-phenol	88-06-2	2.0
D017	2,4,5-TP (Silvex)	93-72-1	1.0
D043	Vinyl chloride	75-01-4	0.2

Notes to Table:

3 Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.

4 If o-, m-, p-cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200.0 mg/L.

(Source: Amended at 15 Ill. Reg. , effective

SUBPART D: LISTS OF HAZARDOUS WASTE

Section 721.131 Hazardous Wastes From Nonspecific Sources

The following solid wastes are listed hazardous wastes from non-specific sources unless they are excluded under 35 Ill. Adm. Code 720.120 and 720.122 and listed in Appendix I.

EPA Hazardous Waste No.	Industry and Hazardous Waste	Hazard Code
F001	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride and chlorinated fluorocarbons; all spent solvent mixtures and blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004 or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F002	The following spent halogenated solvents: tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, orthodichlorobenzene, trichlorofluoromethane and 1,1,2-trichloroethane; all spent solvent mixtures and blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F001, F004 or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F003	The following spent non-halogenated solvents: xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone and methanol; all spent solvent mixtures and blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures and blends containing, before use, one or more of the above non-halogenated solvents and a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004 or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(I)

F004	The following spent non-halogenated solvents: cresols and cresylic acid and nitrobenzene; all spent solvent mixtures and blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002 or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(T)
F005	The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol and 2-nitropropane; all spent solvent mixtures and blends, containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002 or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	(I, T)
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.	(T)
F019	See Below	
F007	Spent cyanide plating bath solutions from electroplating operations.	(R, T)
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.	(R, T)
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.	(R, T)
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.	(R, T)

F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.	(R, T)
F012	Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.	(T)
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.	(T)
F020	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of hexachlorophene from highly purified 2,4,5-trichlorophenol.)	(H)
F021	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives.	(H)
F022	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate or component in a formulating process) of tetra-, penta- or hexachlorobenzenes under alkaline conditions.	(H)
F023	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of hexachlorophene from highly purified 2,4,5- trichlorophenol.	(H)

F024	Process wastes including but not limited to, distillation residues, heavy ends, tars, and reactor cleanout wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts and wastes listed in this Section or Section 721.132.)	(T)
F025	Condensed light ends, spent filters and filter aids, and spent dessicant wastes from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.	(T)
F026	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate or component in a formulating process) of tetra-, penta- or hexachlorobenzene under alkaline conditions.	(H)
F027	Discarded unused formulations containing tri-, tetra- or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component).	(H)
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with hazardous waste numbers F020, F021, F022, F023, F026 and F027.	(T)

F039	Leachate resulting from the treatment, storage or disposal of wastes classified by more than one waste code under Subpart D, or from a mixture of wastes classified under Subparts C and D. (Leachate resulting from the management of one or more of the following USEPA hazardous wastes and no other hazardous wastes retains its hazardous waste code(s): F020, F021, F022, F023, F026, F027 or F028.)	(T)

~~(Board Note:~~BOARD NOTE: The primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability), and C (Corrosivity). The letter H indicates Acute Hazardous Waste.~~)~~

(Source: Amended at 15 Ill. Reg. , effective

Section 721.132 Hazardous Waste from Specific Sources

The following solid wastes are listed hazardous wastes from specific sources unless they are excluded under 35 Ill. Adm. Code 720.120 and 720.122 and listed in Appendix I.

EPA Hazardous Waste No.	Industry and Hazardous Waste	Hazard Code
	Wood Preservation:	
K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.	(T)
	Inorganic Pigments:	
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.	(T)
K003	Wastewater treatment sludge from the production of molybdate orange pigments.	(T)
K004	Wastewater treatment sludge from the production of zinc yellow pigments.	(T)
K005	Wastewater treatment sludge from the production of chrome green pigments.	(T)

K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).	(T)
K007	Wastewater treatment sludge from the production of iron blue pigments.	(T)
K008	Oven residue from the production of chrome oxide green pigments.	(T)
	Organic Chemicals:	
K009	Distillation bottoms from the production of acetaldehyde from ethylene.	(T)
K010	Distillation side cuts from the production of acetaldehyde from ethylene.	(T)
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile.	(R,T)
K013	Bottom stream from the acetronitrile column in the production of acrylonitrile.	(T)
K014	Bottoms from the acetontrile purification column in the production of acrylonitrile.	(T)
K015	Still bottoms from the distillation of benzyl chloride.	(T)
K016	Heavy ends or distillation residues from the production of carbon tetrachloride.	(T)
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.	(T)
K018	Heavy ends from the fractionation column in ethyl chloride production.	(T)
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.	(T)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.	(T)
K021	Aqueous spent antimony catalyst waste from fluoromethanes production.	(T)

K022	Distillation bottom tars from the production of phenol/acetone from cumene.	(T)
K023	Distillation light ends from the production of phthalic anhydride from naphthalene.	(T)
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.	(T)
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene.	(T)
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.	(T)
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.	(T)
K026	Stripping still tails from the production of methyl ethyl pyridines.	(T)
K027	Centrifuge and distillation residues from toluene diisocyanate production.	(R,T)
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.	(T)
K029	Waste from the product stream stripper in the production of 1,1,1-trichloroethane.	(T)
K095	Distillation bottoms from the production of 1,1,1-trichloroethane.	(T)
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.	(T)
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.	(T)
K083	Distillation bottoms from aniline production.	(T)
K103	Process residues from aniline extraction from the production of aniline.	(T)
K104	Combined wastewater streams generated from nitrobenzene/aniline production.	(T)
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes.	(T)

K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	(T)
K107	Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxilic acid hydrazides.	(C,T)
K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxilic acid hydrazides.	(I,T)
K109	Spent filter cartridges from the product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxilic acid hydrazides.	(T)
K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxilic acid hydrazides.	(T)
K111	Product wastewaters from the production of dinitrotoluene via nitration of toluene.	(C,T)
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitroluene.	(T)
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotolune.	(T)
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.	(T)

K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.	(T)
K118	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)

Inorganic Chemicals:

K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.	(T)
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.	(T)
K106	Wastewater treatment sludge from the mercury cell process in chlorine production.	(T)

Pesticides:

K031	By-product salts generated in the production of MSMA and cacodylic acid.	(T)
K032	Wastewater treatment sludge from the production of chlordane.	(T)
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.	(T)
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.	(T)
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.	(T)
K035	Wastewater treatment sludges generated in the production of creosote.	(T)

K036	Still bottoms from toluene reclamation distillation in the production of disulfoton.	(T)
K037	Wastewater treatment sludges from the production of disulfoton.	(T)
K038	Wastewater from the washing and stripping of phorate production.	(T)
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate.	(T)
K040	Wastewater treatment sludge from the production of phorate.	(T)
K041	Wastewater treatment sludge from the production of toxaphene.	(T)
K098	Untreated process wastewater from the production of toxaphene.	(T)
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.	(T)
K043	2,6-Dichlorophenol waste from the production of 2,4-D.	(T)
K099	Untreated wastewater from the production of 2,4-D.	(T)
K123	Process wastewater (including supernates, filtrates and washwaters) from the production of ethylenebisdithiocarbamic acid and its salts.	(T)
K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.	(C,T)
K125	Filtration, evaporation and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts.	(T)
K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts.	(T)

K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide.	(C,T)
K132	Spent absorbent and wastewater separator solids from the production of methyl bromide.	(T)
	Explosives:	
K044	Wastewater treatment sludges from the manufacturing and processing of explosives.	(R)
K045	Spent carbon from the treatment of wastewater containing explosives.	(R)
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.	(T)
K047	Pink/red water from TNT operations.	(R)
	Petroleum Refining:	
K048	Dissolved air flotation (DAF) float from the petroleum refining industry.	(T)
K049	Slop oil emulsion solids from the petroleum refining industry.	(T)
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.	(T)
K051	API separator sludge from the petroleum refining industry.	(T)
K052	Tank bottoms (leaded) from the petroleum refining industry.	(T)
	Iron and Steel:	
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.	(T)
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332) (as defined in 35 Ill. Adm. Code 720.110).	(C,T)

Primary Copper:

K064	Acid plant blowdown slurry or sludge resulting from the thickening of blowdown slurry from primary copper production.	(T)

Primary Lead:

K065	Surface impoundment solids contained in and dredged from surface impoundments at primary lead smelting facilities.	(T)

Primary Zinc:

K066	After June 30, 1990, sludge from treatment of process wastewater or acid plant blowdown from primary zinc production.	(T)

Primary Aluminum:

K088	Spent potliners from primary aluminum reduction.	(T)

Ferroalloys:

K090	Emission control dust or sludge from ferrochromiumsilicon production.	(T)
K091	Emission control dust or sludge from ferrochromium production.	(T)

Secondary Lead:

K069	Emission control dust/sludge from secondary lead smelting.	(T)
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.	(T)

Veterinary Pharmaceuticals:

K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organoarsenic compounds.	(T)

K102	Residue from use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)

Ink Formulation:

K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps and stabilizers containing chromium and lead.	(T)

Coking:

K060	Ammonia still lime sludge from coking operations.	(T)
K087	Decanter tank tar sludge from coking operations.	(T)

(Source: Amended at 15 Ill. Reg. , effective

Section 721.133 Discarded Commercial Chemical Products, Off-Specification Species, Container Residues and Spill Residues Thereof

The following materials or items are hazardous wastes if and when they are discarded or intended to be discarded as described in Section 721.102(a)(2)(A), when they are mixed with waste oil or used oil or other material and applied to the land for dust suppression or road treatment, when they are otherwise applied to the land in lieu of their original intended use or when they are contained in products that are applied to land in lieu of their original intended use, or when, in lieu of their original intended use, they are produced for use as (or as a component of) a fuel, distributed for use as a fuel, or burned as a fuel.

a) Any commercial chemical product, or manufacturing chemical intermediate having the generic name listed in subsections (e) or (f).

b) Any off-specification commercial chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in subsections (e) or (f).

c) Any residue remaining in a container or inner liner removed from a container that has held any commercial

chemical product or manufacturing chemical intermediate having the generic name listed in subsection (e) or (f), unless the container is empty as defined in Section 721.107(b)(3).

BOARD NOTE: Unless the residue is being beneficially used or reused, or legitimately recycled or reclaimed, or being accumulated, stored, transported or treated prior to such use, reuse, recycling or reclamation, the Board considers the residue to be intended for discard, and thus a hazardous waste. An example of a legitimate reuse of the residue would be where the residue remains in the container and the container is used to hold the same commercial chemical product or manufacturing chemical intermediate it previously held. An example of the discard of the residue would be where the drum is sent to a drum reconditioner who reconditions the drum but discards the residue.

d) Any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water of any commercial chemical product or manufacturing chemical intermediate having the generic name listed in subsection (e) or (f), or any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any off-specification chemical product or manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in subsection (e) or (f).

BOARD NOTE: The phrase "commercial chemical product or manufacturing chemical intermediate having the generic name listed in ..." refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient. It does not refer to a material, such as a manufacturing process waste, that contains any of the substances listed in subsections (e) or (f). Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in subsections (e) or (f), such waste will be listed in either Sections 721.131 or 721.132 or will be identified as a hazardous waste by the characteristics set forth in Subpart C.

e) The commercial chemical products, manufacturing chemical intermediates or off-specification commercial chemical products or manufacturing chemical

intermediates referred to in subsections (a) through (d), are identified as acute hazardous waste (H) and are subject to the small quantity exclusion defined in Section 721.105(e). These wastes and their corresponding EPA Hazardous Waste Numbers are:

BOARD NOTE: For the convenience of the regulated community the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), and R (Reactivity). Absence of a letter indicates that the compound only is listed for acute toxicity.

Hazardous Waste No.	Chemical Abstracts No.	Substance
P023	107-20-0	Acetaldehyde, chloro-
P002	591-08-2	Acetamide, N-(aminothioxomethyl)
P057	640-19-7	Acetamide, 2-fluoro-
P058	62-74-8	Acetic acid, fluoro-, sodium salt
P002	591-08-2	1-Acetyl-2-thiourea
P003	107-02-8	Acrolein
P070	116-06-3	Aldicarb
P004	309-00-2	Aldrin
P005	107-18-6	Allyl alcohol
P006	20859-73-8	Aluminum phosphide (R,T)
P007	2763-96-4	5-(Aminomethyl)-3-isoxazolol
P008	504-24-5	4-Aminopyridine
P009	131-74-8	Ammonium picrate (R)
P119	7803-55-6	Ammonium vanadate
P099	506-61-6	Argentate(1-), bis(cyano-C)-, potassium
P010	7778-39-4	Arsenic acid H_3AsO_4
P012	1327-53-3	Arsenic oxide As_2O_3
P011	1303-28-2	Arsenic oxide As_2O_5
P011	1303-28-2	Arsenic pentoxide
P012	1327-53-3	Arsenic trioxide
P038	692-42-2	Arsine, diethyl-
P036	696-28-6	Arsonous dichloride, phenyl-
P054	151-56-4	Aziridine
P067	75-55-8	Aziridine, 2-methyl
P013	542-62-1	Barium cyanide
P024	106-47-8	Benzenamine, 4-chloro-
P077	100-01-6	Benzenamine, 4-nitro-
P028	100-44-7	Benzene, (chloromethyl)-
P042	51-43-4	1,2-Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, (R)-
P046	122-09-8	Benzeneethanamine, alpha, alpha-dimethyl-
P014	108-98-5	Benzenethiol

P001	P81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, and salts, when present at concentrations greater than 0.3%
P028	100-44-7	Benzyl chloride
P015	7440-41-7	Beryllium
P017	598-31-2	Bromoacetone
P018	357-57-3	Brucine
P045	39196-18-6	2-Butanone,3,3-dimethyl-1-(methylthio)-, O-[methylamino)-carbonyl] oxime
P021	592-01-8	Calcium cyanide
P021	592-01-8	Calcium cyanide $Ca(CN)_2$
P022	75-15-0	Carbon disulfide
P095	75-44-5	Carbonic dichloride
P023	107-20-0	Chloroacetaldehyde
P024	106-47-8	p-Chloroaniline
P026	5344-82-1	1-(o-Chlorophenyl)thiourea
P027	542-76-7	3-Chloropropionitrile
P029	544-92-3	Copper cyanide
P029	544-92-3	Copper cyanide CuCN
P030		Cyanides (soluble cyanide salts), not otherwise specified
P031	460-19-5	Cyanogen
P033	506-77-4	Cyanogen chloride
P033	506-77-4	Cyanogen chloride CNCl
P034	131-89-5	2-Cyclohexyl-4,6-dinitrophenol
P016	542-88-1	Dichloromethyl ether
P036	696-28-6	Dichlorophenylarsine
P037	60-57-1	Dieldrin
P038	692-42-2	Diethylarsine
P041	311-45-5	Diethyl-p-nitrophenyl phosphate
P040	297-97-2	O,O-Diethyl O-pyrazinyl phosphorothioate
P043	55-91-4	Diisopropylfluorophosphate (DFP)
P004	309-00-2	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha, 4alpha, 4abeta, 5alpha, 8alpha, 8abeta)-
P060	465-73-6	1,4,5,8-Di-methanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-, (1alpha, 4alpha, 4abeta, 5beta, 8beta, 8abeta)-
P037	60-57-1	2,7:3,6-Dimethanonaphth[2,3-b]-oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha, 2beta, 2aalpha, 3beta, 6beta, 6aalpha, 7beta, 7aalpha)-

P051	P72-20-8	2,7:3,6-Dimethanonaphth[2,3-b]-oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha, 2beta, 2abeta, 3alpha, 6alpha, 6abeta, 7beta, 7aalpha)-, and metabolites
P044	60-51-5	Dimethoate
P046	122-09-8	alpha, alpha-Dimethylphenethyl-amine
P047	534-52-1	4,6-Dinitro-o-cresol and salts
P048	51-28-5	2,4-Dinitrophenol
P020	88-85-7	Dinoseb
P085	152-16-9	Diphosphoramide, octamethyl-
P111	107-49-3	Diphosphoric acid, tetraethyl ester
P039	298-04-4	Disulfoton
P049	541-53-7	Dithiobiuret
P050	115-29-7	Endosulfan
P088	145-73-3	Endothall
P051	72-20-8	Endrin
P051	72-20-8	Endrin, and metabolites
P042	51-43-4	Epinephrine
P031	460-19-5	Ethanedinitrile
P066	16752-77-5	Ethanimidothioic acid, N-[[(methylamino)carbonyl]oxy]-, methyl ester
P101	107-12-0	Ethyl cyanide
P054	151-56-4	Ethylenimine
P097	52-85-7	Famphur
P056	7782-41-4	Fluorine
P057	640-19-7	Fluoroacetamide
P058	62-74-8	Fluoroacetic acid, sodium salt
P065	628-86-4	Fulminic acid, mercury (2+) salt (R,T)
P059	76-44-8	Heptachlor
P062	757-58-4	Hexaethyl tetraphosphate
P116	79-19-6	Hydrazinecarbothioamide
P068	60-34-4	Hydrazine, methyl-
P063	74-90-8	Hydrocyanic acid
P063	74-90-8	Hydrogen cyanide
P096	7803-51-2	Hydrogen phosphide
P060	465-73-6	Isodrin
P007	2763-96-4	3(2H)-Isoxazolone, 5-(amino-methyl)-
P092	62-38-4	Mercury, (acetato-O)phenyl-
P065	628-86-4	Mercury fulminate (R,T)
P082	62-75-9	Methanamine, N-methyl-N-nitroso-
P064	624-83-9	Methane, isocyanato-
P016	542-88-1	Methane, oxybis[chloro-
P112	509-14-8	Methane, tetranitro- (R)
P118	75-70-7	Methanethiol, trichloro-

P050	115-29-7	6,9-Methano-2,4,3-benzodioxathiepen, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide
P059	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-
P066	16752-77-5	Methomyl
P068	60-34-4	Methyl hydrazine
P064	624-83-9	Methyl isocyanate
P069	75-86-5	2-Methyllactonitrile
P071	298-00-0	Methyl parathion
P072	86-88-4	alpha-Naphthylthiourea
P073	13463-39-3	Nickel carbonyl
P073	13463-39-3	Nickel carbonyl $Ni(CO)_4$, (T-4)-
P074	557-19-7	Nickel cyanide
P074	557-19-7	Nickel cyanide $Ni(CN)_2$
P075	54-11-5	Nicotine, and salts
P076	10102-43-9	Nitric oxide
P077	100-01-6	p-Nitroaniline
P078	10102-44-0	Nitrogen dioxide
P076	10102-43-9	Nitrogen oxide NO
P078	10102-44-0	Nitrogen oxide NO_2
P081	55-63-0	Nitroglycerine (R)
P082	62-75-9	N-Nitrosodimethylamine
P084	4549-40-0	N-Nitrosomethylvinylamine
P085	152-16-9	Octamethylpyrophosphoramide
P087	20816-12-0	Osmium oxide OsO_4, (T-4)-
P087	20816-12-0	Osmium tetroxide
P088	145-73-3	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P089	56-38-2	Parathion
P034	131-89-5	Phenol, 2-cyclohexyl-4,6-dinitro-
P048	51-28-5	Phenol, 2,4-dinitro-
P047	P534-52-1	Phenol, 2-methyl-4,6-dinitro-, and salts
P020	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
P009	131-74-8	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P092	62-38-4	Phenylmercury acetate
P093	103-85-5	Phenylthiourea
P094	298-02-2	Phorate
P095	75-44-5	Phosgene
P096	7803-51-2	Phosphine
P041	311-45-5	Phosphoric acid, diethyl 4-nitrophenyl ester
P039	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester
P094	298-02-2	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester

P044	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl]ester
P043	55-91-4	Phosphorofluoridic acid, bis(1-methylethyl)ester
P089	56-38-2	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester
P040	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P097	52-85-7	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl)]phenyl] O,O-dimethyl ester
P071	298-00-0	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester
P110	78-00-2	Plumbane, tetraethyl-
P098	151-50-8	Potassium cyanide
P098	151-50-8	Potassium cyanide KCN
P099	506-61-6	Potassium silver cyanide
P070	116-06-3	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)-carbonyl]oxime
P101	107-12-0	Propanenitrile
P027	542-76-7	Propanenitrile, 3-chloro-
P069	75-86-5	Propanenitrile, 2-hydroxy-2-methyl-
P081	55-63-0	1,2,3-Propanetriol, trinitrate-(R)
P017	598-31-2	2-Propanone, 1-bromo-
P102	107-19-7	Propargyl alcohol
P003	107-02-8	2-Propenal
P005	107-18-6	2-Propen-1-ol
P067	75-55-8	1,2-Propylenimine
P102	107-19-7	2-Propyn-1-ol
P008	504-24-5	4-Pyridinamine
P075	P54-11-5	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)- and salts
P114	12039-52-0	Selenious acid, dithallium (1+) salt
P103	630-10-4	Selenourea
P104	506-64-9	Silver cyanide
P104	506-64-9	Silver cyanide AgCN
P105	26628-22-8	Sodium azide
P106	143-33-9	Sodium cyanide
P106	143-33-9	Sodium cyanide NaCN
P108	P57-24-9	Strychnidin-10-one, and salts
P018	357-57-3	Strychnidin-10-one, 2,3-dimethoxy-
P108	P57-24-9	Strychnine and salts
P115	7446-18-6	Sulfuric acid, dithallium (1+) salt
P109	3689-24-5	Tetraethyldithiopyrophosphate
P110	78-00-2	Tetraethyl lead

P111	107-49-3	Tetraethylpyrophosphate
P112	509-14-8	Tetranitromethane (R)
P062	757-58-4	Tetraphosphoric acid, hexaethyl ester
P113	1314-32-5	Thallic oxide
P113	1314-32-5	Thallium oxide Tl_2O_3
P114	12039-52-0	Thallium (I) selenite
P115	7446-18-6	Thallium (I) sulfate
P109	3689-24-5	Thiodiphosphoric acid, tetraethyl ester
P045	39196-18-4	Thiofanox
P049	541-53-7	Thioimidodicarbonic diamide $[(H_2N)C(S)]_2$
P014	108-98-5	Thiophenol
P116	79-19-6	Thiosemicarbazide
P026	5344-82-1	Thiourea, (2-chlorophenyl)-
P072	86-88-4	Thiourea, 1-naphthalenyl-
P093	103-85-5	Thiourea, phenyl-
P123	8001-35-2	Toxaphene
P118	75-70-7	Trichloromethanethiol
P119	7803-55-6	Vanadic acid, ammonium salt
P120	1314-62-1	Vanadium oxide V_2O_5
P120	1314-62-1	Vanadium pentoxide
P084	4549-40-0	Vinylamine, N-methyl-N-nitroso-
P001	P81-81-2	Warfarin, and salts, when present at concentrations greater than 0.3%.
P121	557-21-1	Zinc cyanide
P121	557-21-1	Zinc cyanide $Zn(CN)_2$
P122	1314-84-7	Zinc phosphide Zn_3P_2, when present at concentrations greater than 10% (R,T)

f) The commercial chemical products, manufacturing chemical intermediates or off-specification commercial chemical products referred to in subsections (a) through (d), are identified as toxic wastes (T) unless otherwise designated and are subject to the small quantity exclusion defined in Section 721.105(a) and (g). These wastes and their corresponding EPA Hazardous Waste Numbers are:

BOARD NOTE: For the convenience of the regulated community, the primary hazardous properties of these materials have been indicated by the letters T (Toxicity), R (Reactivity), I (Ignitability) and C (Corrosivity). Absence of a letter indicates that the compound is only listed for toxicity.

Hazardous Waste No.	Chemical Abstracts No.	Substance
U001	75-07-0	Acetaldehyde (I)
U034	75-87-6	Acetaldehyde, trichloro-
U187	62-44-2	Acetamide, N-(4-ethoxyphenyl)-
U005	53-96-3	Acetamide, N-9H-fluoren-2-yl-
U240	P 94-75-7	Acetic acid, (2,4-dichlorophenoxy)-, salts and esters
U112	141-78-6	Acetic acid, ethyl ester (I)
U144	301-04-2	Acetic acid, lead (2+) salt
U214	563-68-8	Acetic acid, thallium (1+) salt
See F027	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
UOO2	67-64-1	Acetone (I)
UOO3	75-05-8	Acetonitrile (I,T)
U004	98-86-2	Acetophenone
U005	53-96-3	2-Acetylaminofluorene
U006	75-36-5	Acetyl chloride (C,R,T)
U007	79-06-1	Acrylamide
U008	79-10-7	Acrylic acid (I)
U009	107-13-1	Acrylonitrile
U011	61-82-5	Amitrole
U012	62-53-3	Aniline (I,T)
U136	75-60-5	Arsinic acid, dimethyl-
U014	492-80-8	Auramine
U015	115-02-6	Azaserine
U010	50-07-7	Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1a-S-(1aalpha, 8beta, 8aalpha, 8balpha)]-
U157	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-
U016	225-51-4	Benz(c)acridine
U017	98-87-3	Benzal chloride
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
U018	56-55-3	Benz[a]anthracene
U094	57-97-6	Benz[a]anthracene, 7,12-dimethyl-
U012	62-53-3	Benzenamine (I,T)
U014	492-80-8	Benzenamine, 4,4'-carbonimidoyl-bis[N,N-dimethyl-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-, hydrochloride
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U328	95-53-4	Benzenamine, 2-methyl-
U353	106-49-0	Benzenamine, 4-methyl-

U158	101-14-4	Benzenamine, 4,4'-methylenebis-[2-chloro-
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride
U181	99-55-8	Benzenamine, 2-methyl-5-nitro-
U019	71-43-2	Benzene (I,T)
U038	510-15-6	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-
U035	305-03-3	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-
U037	108-90-7	Benzene, chloro-
U221	25376-45-8	Benzenediamine, ar-methyl-
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
U070	95-50-1	Benzene, 1,2-dichloro-
U071	541-73-1	Benzene, 1,3-dichloro-
U072	106-46-7	Benzene, 1,4-dichloro-
U060	72-54-8	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-
U017	98-87-3	Benzene, (dichloromethyl)-
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl- (R,T)
U239	1330-20-7	Benzene, dimethyl- (I,T)
U201	108-46-3	1,3-Benzenediol
U127	118-74-1	Benzene, hexachloro-
U056	110-82-7	Benzene, hexahydro- (I)
U220	108-88-3	Benzene, methyl-
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-
U055	98-82-8	Benzene, (1-methylethyl)- (I)
U169	98-95-3	Benzene, nitro-
U183	608-93-5	Benzene, pentachloro-
U185	82-68-8	Benzene, pentachloronitro-
U020	98-09-9	Benzenesulfonic acid chloride (C,R)
U020	98-09-9	Benzenesulfonyl chloride (C,R)
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U061	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-
U247	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-
U023	98-07-7	Benzene, (trichloromethyl)-

U234	99-35-4	Benzene, 1,3,5-trinitro-
U021	92-87-5	Benzidene
U202	P 81-07-2	1,2-Benzisothiazol-3(2H)-one, 1,1-dioxide, and salts
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U064	189-55-9	Benzo[rst]pentaphene
U248	P 81-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, and salts, when present at concentrations of 0.3% or less
U022	50-32-8	Benzo[a]pyrene
U197	106-51-4	p-Benzoquinone
U023	98-07-7	Benzotrichloride (C,R,T)
U085	1464-53-5	2,2'-Bioxirane
U021	92-87-5	[1,1'-Biphenyl]-4,4'-diamine
U073	91-94-1	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-
U091	119-90-4	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-
U095	119-93-7	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-
U225	75-25-2	Bromoform
U030	101-55-3	4-Bromophenyl phenyl ether
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-
U031	71-36-3	1-Butanol (I)
U159	78-93-3	2-Butanone (I,T)
U160	1338-23-4	2-Butanone, peroxide (R,T)
U053	4170-30-3	2-Butenal
U074	764-41-0	2-Butene, 1,4-dichloro- (I,T)
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z), 7(2S*,3R*), 7aalpha]]-
U031	71-36-3	n-Butyl alcohol (I)
U136	75-60-5	Cacodylic acid
U032	13765-19-0	Calcium chromate
U238	51-79-6	Carbamic acid, ethyl ester
U178	615-53-2	Carbamic acid, methylnitroso-, ethyl ester
U097	79-44-7	Carbamic chloride, dimethyl-
U114	P 111-54-6	Carbamodithioic acid, 1,2-ethanediylbis-, salts and esters
U062	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester

U215	6533-73-9	Carbonic acid, dithallium (1+) salt
U033	353-50-4	Carbonic difluoride
U156	79-22-1	Carbonochloridic acid, methyl ester (I,T)
U033	353-50-4	Carbon oxyfluoride (R,T)
U211	56-23-5	Carbon tetrachloride
U034	75-87-6	Chloral
U035	305-03-3	Chlorambucil
U036	57-74-9	Chlordanealpha and gamma isomers
U026	494-03-1	Chlornaphazin
U037	108-90-7	Chlorobenzene
U038	510-15-6	Chlorobenzilate
U039	59-50-7	p-Chloro-m-cresol
U042	110-75-8	2-Chloroethyl vinyl ether
U044	67-66-3	Chloroform
U046	107-30-2	Chloromethyl methyl ether
U047	91-58-7	beta-Chloronaphthalene
U048	95-57-8	o-Chlorophenol
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride
U032	13765-19-0	Chromic acid H_2CrO_4, calcium salt
U050	218-01-9	Chrysene
U051		Creosote
U052	1319-77-3	Cresol (Cresylic acid)
U053	4170-30-3	Crotonaldehyde
U055	98-82-8	Cumeme (I)
U246	506-68-3	Cyanogen bromide CNBr
U197	106-51-4	2,5-Cyclohexadiene-1,4-dione
U056	110-82-7	Cyclohexane (I)
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-
U057	108-94-1	Cyclohexanone (I)
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U058	50-18-0	Cyclophosphamide
U240	P 94-75-7	2,4-D, salts and esters
U059	20830-81-3	Daunomycin
U060	72-54-8	DDD
U061	50-29-3	DDT
U062	2303-16-4	Diallate
U063	53-70-3	Dibenz[a,h]anthracene
U064	189-55-9	Dibenzo[a,i]pyrene
U066	96-12-8	1,2-Dibromo-3-chloropropane
U069	84-74-2	Dibutyl phthalate
U070	95-50-1	o-Dichlorobenzene
U071	541-73-1	m-Dichlorobenzene
U072	106-46-7	p-Dichlorobenzene
U073	91-94-1	3,3'-Dichlorobenzidine
U074	764-41-0	1,4-Dichloro-2-butene (I,T)

U075	75-71-8	Dichlorodifluoromethane
U078	75-35-4	1,1-Dichloroethylene
U079	156-60-5	1,2-Dichloroethylene
U025	111-44-4	Dichloroethyl ether
U027	108-60-1	Dichloroisopropyl ether
U024	111-91-1	Dichloromethoxy ethane
U081	120-83-2	2,4-Dichlorophenol
U082	87-65-0	2,6-Dichlorophenol
U084	542-75-6	1,3-Dichloropropene
U085	1464-53-5	1,2:3,4-Diepoxybutane (I,T)
U108	123-91-1	1,4-Diethyleneoxide
U028	117-81-7	Diethylhexyl phthalate
U086	1615-80-1	N,N'-Diethylhydrazine
U087	3288-58-2	O,O-Diethyl S-methyl dithiophosphate
U088	84-66-2	Diethyl phthalate
U089	56-53-1	Diethylstilbestrol
U090	94-58-6	Dihydrosafrole
U091	119-90-4	3,3'-Dimethoxybenzidine
U092	124-40-3	Dimethylamine (I)
U093	60-11-7	p-Dimethylaminoazobenzene
U094	57-97-6	7,12-Dimethylbenz[a]anthracene
U095	119-93-7	3,3'-Dimethylbenzidine
U096	80-15-9	alpha, alpha-Dimethylbenzylhydroperoxide (R)
U097	79-44-7	Dimethylcarbamoyl chloride
U098	57-14-7	1,1-Dimethylhydrazine
U099	540-73-8	1,2-Dimethylhydrazine
U101	105-67-9	2,4-Dimethylphenol
U102	131-11-3	Dimethyl phthalate
U103	77-78-1	Dimethyl sulfate
U105	121-14-2	2,4-Dinitrotoluene
U106	606-20-2	2,6-Dinitrotoluene
U107	117-84-0	Di-n-octyl phthalate
U108	123-91-1	1,4-Dioxane
U109	122-66-7	1,2-Diphenylhydrazine
U110	142-84-7	Dipropylamine (I)
U111	621-64-7	Di-n-propylnitrosamine
U041	106-89-8	Epichlorohydrin
U001	75-07-0	Ethanal (I)
U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-
U067	106-93-4	Ethane, 1,2-dibromo-
U076	75-34-3	Ethane, 1,1-dichloro-
U077	107-06-2	Ethane, 1,2-dichloro-
U131	67-72-1	Ethane, hexachloro-
U024	111-91-1	Ethane, 1,1'-[methylenebis(oxy)]-bis[2-chloro-
U117	60-29-7	Ethane, 1,1'-oxybis- (I)
U025	111-44-4	Ethane, 1,1'-oxybis[2-chloro-

U184	76-01-7	Ethane, pentachloro-
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U218	62-55-5	Ethanethioamide
U226	71-55-6	Ethane, 1,1,1-trichloro-
U227	79-00-5	Ethane, 1,1,2-trichloro-
U359	110-80-5	Ethanol, 2-ethoxy-
U173	1116-54-7	Ethanol, 2,2'-(nitrosoimino)bis-
U004	98-86-2	Ethanone, 1-phenyl-
U043	75-01-4	Ethene, chloro-
U042	110-75-8	Ethene, (2-chloroethoxy)-
U078	75-35-4	Ethene, 1,1-dichloro-
U079	156-60-5	Ethene, 1,2-dichloro-, (E)-
U210	127-18-4	Ethene, tetrachloro-
U228	79-01-6	Ethene, trichloro-
U112	141-78-6	Ethyl acetate (I)
U113	140-88-5	Ethyl acrylate (I)
U238	51-79-6	Ethyl carbamate (urethane)
U117	60-29-7	Ethyl ether
U114	P 111-54-6	Ethylenebisdithiocarbamic acid, salts and esters
U067	106-93-4	Ethylene dibromide
U077	107-06-2	Ethylene dichloride
U359	110-80-5	Ethylene glycol monoethyl ether
U115	75-21-8	Ethylene oxide (I,T)
U116	96-45-7	Ethylenethiourea
U076	75-34-3	Ethylidene dichloride
U118	97-63-2	Ethyl methacrylate
U119	62-50-0	Ethyl methanesulfonate
U120	206-44-0	Fluoranthene
U122	50-00-0	Formaldehyde
U123	64-18-6	Formic acid (C,T)
U124	110-00-9	Furan (I)
U125	98-01-1	2-Furancarboxaldehyde (I)
U147	108-31-6	2,5-Furandione
U213	109-99-9	Furan, tetrahydro- (I)
U125	98-01-1	Furfural (I)
U124	110-00-9	Furfuran (I)
U206	18883-66-4	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-, D-
U206	18883-66-4	D-Glucose, 2-deoxy-2-[[(methyl-nitrosoamino)-carbonyl]amino]-
U126	765-34-4	Glycidylaldehyde
U163	70-25-7	Guanidine, N-methyl-N'-nitro-N-nitroso-
U127	118-74-1	Hexachlorobenzene
U128	87-68-3	Hexachlorobutadiene
U130	77-47-4	Hexachlorocyclopentadiene
U131	67-72-1	Hexachloroethane
U132	70-30-4	Hexachlorophene
U243	1888-71-7	Hexachloropropene
U133	302-01-2	Hydrazine (R,T)

U086	1615-80-1	Hydrazine, 1,2-diethyl-
U098	57-14-7	Hydrazine, 1,1-dimethyl-
U099	540-73-8	Hydrazine, 1,2-dimethyl-
U109	122-66-7	Hydrazine, 1,2-diphenyl-
U134	7664-39-3	Hydrofluoric acid (C,T)
U134	7664-39-3	Hydrogen fluoride (C,T)
U135	7783-06-4	Hydrogen sulfide
U135	7783-06-4	Hydrogen sulfide H_2S
U096	80-15-9	Hydroperoxide, 1-methyl-1-phenyl-ethyl- (R)
U116	96-45-7	2-Imidazolidinethione
U137	193-39-5	Indeno[1,2,3-cd]pyrene
U190	85-44-9	1,3-Isobenzofurandione
U140	78-83-1	Isobutyl alcohol (I,T)
U141	120-58-1	Isosafrole
U142	143-50-0	Kepone
U143	303-34-4	Lasiocarpene
U144	301-04-2	Lead acetate
U146	1335-32-6	Lead, bis(acetato-O)tetra-hydroxytri-
U145	7446-27-7	Lead phosphate
U146	1335-32-6	Lead subacetate
U129	58-89-9	Lindane
U163	70-25-7	MNNG
U147	108-31-6	Maleic anhydride
U148	123-33-1	Maleic hydrazide
U149	109-77-3	Malononitrile
U150	148-82-3	Melphalan
U151	7439-97-6	Mercury
U152	126-98-7	Methacrylonitrile (I,T)
U092	124-40-3	Methanamine, N-methyl- (I)
U029	74-83-9	Methane, bromo-
U045	74-87-3	Methane, chloro- (I,T)
U046	107-30-2	Methane, chloromethoxy-
U068	74-95-3	Methane, dibromo-
U080	75-09-2	Methane, dichloro-
U075	75-71-8	Methane, dichlorodifluoro-
U138	74-88-4	Methane, iodo-
U119	62-50-0	Methanesulfonic acid, ethyl ester
U211	56-23-5	Methane, tetrachloro-
U153	74-93-1	Methanethiol (I,T)
U225	75-25-2	Methane, tribromo-
U044	67-66-3	Methane, trichloro-
U121	75-69-4	Methane, trichlorofluoro-
U036	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-
U154	67-56-1	Methanol (I)
U155	91-80-5	Methapyrilene

U142	143-50-0	1,3,4-Metheno-2H-cyclobuta[cd]-pentalen-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-decachlorooctahydro-
U247	72-43-5	Methoxychlor
U154	67-56-1	Methyl alcohol (I)
U029	74-83-9	Methyl bromide
U186	504-60-9	1-Methylbutadiene (I)
U045	74-87-3	Methyl chloride (I,T)
U156	79-22-1	Methyl chlorocarbonate (I,T)
U226	71-55-6	Methylchloroform
U157	56-49-5	3-Methylcholanthrene
U158	101-14-4	4,4'-Methylenebis(2-chloro-aniline)
U068	74-95-3	Methylene bromide
U080	75-09-2	Methylene chloride
U159	78-93-3	Methyl ethyl ketone (MEK) (I,T)
U160	1338-23-4	Methyl ethyl ketone peroxide (R,T)
U138	74-88-4	Methyl iodide
U161	108-10-1	Methyl isobutyl ketone (I)
U162	80-62-6	Methyl methacrylate (I,T)
U161	108-10-1	4-Methyl-2-pentanone (I)
U164	56-04-2	Methylthiouracil
U010	50-07-7	Mitomycin C
U059	20830-81-3	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexapyranosyl)oxyl]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-
U167	134-32-7	1-Naphthalenamine
U168	91-59-8	2-Naphthalenamine
U026	494-03-1	Naphthaleneamine, N,N'-bis(2-chloroethyl)-
U165	91-20-3	Naphthalene
U047	91-58-7	Naphthalene, 2-chloro-
U166	130-15-4	1,4-Naphthalenedione
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl-[1,1'-biphenyl]-4,4'-diyl)bis(azo)bis-[5-amino-4-hydroxy]-, tetrasodium salt
U166	130-15-4	1,4-Naphthoquinone
U167	134-32-7	alpha-Naphthylamine
U168	91-59-8	beta-Naphthylamine
U217	10102-45-1	Nitric acid, thallium (1+) salt
U169	98-95-3	Nitrobenzene (I,T)
U170	100-02-7	p-Nitrophenol
U171	79-46-9	2-Nitropropane (I,T)
U172	924-16-3	N-Nitrosodi-n-butylamine
U173	1116-54-7	N-Nitrosodiethanolamine
U174	55-18-5	N-Nitrosodiethylamine

U176	759-73-9	N-Nitroso-N-ethylurea
U177	684-93-5	N-Nitroso-N-methylurea
U178	615-53-2	N-Nitroso-N-methylurethane
U179	100-75-4	N-Nitrosopiperidine
U180	930-55-2	N-Nitrosopyrrolidine
U181	99-55-8	5-Nitro-o-toluidine
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetra-hydro-, 2-oxide
U115	75-21-8	Oxirane (I,T)
U126	765-34-4	Oxiranecarboxyaldehyde
U041	106-89-8	Oxirane, (chloromethyl)-
U182	123-63-7	Paraldehyde
U183	608-93-5	Pentachlorobenzene
U184	76-01-7	Pentachloroethane
U185	82-68-8	Pentachloronitrobenzene (PCNB)
See F027	87-86-5	Pentachlorophenol
U161	108-10-1	Pentanol, 4-methyl-
U186	504-60-9	1,3-Pentadiene (I)
U187	62-44-2	Phenacetin
U188	108-95-2	Phenol
U048	95-57-8	Phenol, 2-chloro-
U039	59-50-7	Phenol, 4-chloro-3-methyl-
U081	120-83-2	Phenol, 2,4-dichloro-
U082	87-65-0	Phenol, 2,6-dichloro-
U089	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-
U101	105-67-9	Phenol, 2,4-dimethyl-
U052	1319-77-3	Phenol, methyl-
U132	70-30-4	Phenol, 2,2'-methylenebis[3,4,6-trichloro-
U170	100-02-7	Phenol, 4-nitro-
See F027	87-86-5	Phenol, pentachloro-
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027	95-95-4	Phenol, 2,4,5-trichloro-
See F027	88-06-2	Phenol, 2,4,6-trichloro-
U150	148-82-3	L-Phenylalanine, 4-[bis(2-chloro-ethyl)amino]-
U145	7446-27-7	Phosphoric acid, lead (2+) salt (2:3)
U087	3288-58-2	Phosphorodithioic acid, O,O-di-ethyl S-methyl ester
U189	1314-80-3	Phosphorus sulfide (R)
U190	85-44-9	Phthalic anhydride
U191	109-06-8	2-Picoline
U179	100-75-4	Piperidine, 1-nitroso-
U192	23950-58-5	Pronamide
U194	107-10-8	1-Propanamine (I,T)
U111	621-64-7	1-Propanamine, N-nitroso-N-propyl-
U110	142-84-7	1-Propanamine, N-propyl- (I)

U066	96-12-8	Propane, 1,2-dibromo-3-chloro-
U083	78-87-5	Propane, 1,2-dichloro-
U149	109-77-3	Propanedinitrile
U171	79-46-9	Propane, 2-nitro- (I,T)
U027	108-60-1	Propane, 2,2'-oxybis[2-chloro-
See F027	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
U193	1120-71-4	1,3-Propane sultone
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U140	78-83-1	1-Propanol, 2-methyl- (I,T)
U002	67-64-1	2-Propanone (I)
U007	79-06-01	2-Propenamide
U084	542-75-6	1-Propene, 1,3-dichloro-
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
U009	107-13-1	2-Propenenitrile
U152	126-98-7	2-Propenenitrile, 2-methyl- (I,T)
U008	79-10-7	2-Propenoic acid (I)
U113	140-88-5	2-Propenoic acid, ethyl ester (I)
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
See F027	93-72-1	Propionic acid, 2-(2,4,5-trichlorophenoxy)-
U194	107-10-8	n-Propylamine (I,T)
U083	78-87-5	Propylene dichloride
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-
U196	110-86-1	Pyridine
U191	109-06-8	Pyridine, 2-methyl-
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-
U164	58-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U180	930-55-2	Pyrrolidine, 1-nitroso-
U200	50-55-5	Reserpine
U201	108-46-3	Resorcinol
U202	P 81-07-2	Saccharin and salts
U203	94-59-7	Safrole
U204	7783-00-8	Selenious acid
U204	7783-00-8	Selenium dioxide
U205	7488-56-4	Selenium sulfide
U205	7488-56-4	Selenium sulfide SeS_2 (R,T)
U015	115-02-6	L-Serine, diazoacetate (ester)
See F027	93-72-1	Silvex (2,4,5-TP)
U206	18883-66-4	Streptozotocin
U103	77-78-1	Sulfuric acid, dimethyl ester
U189	1314-80-3	Sulfur phosphide (R)
See F027	93-76-5	2,4,5-T
U207	95-94-3	1,2,4,5-Tetrachlorobenzene
U208	630-20-6	1,1,1,2-Tetrachloroethane

U209	79-34-5	1,1,2,2-Tetrachloroethane
U210	127-18-4	Tetrachloroethylene
See F027	58-90-2	2,3,4,6-Tetrachlorophenol
U213	109-99-9	Tetrahydrofuran (I)
U214	563-68-8	Thallium (I) acetate
U215	6533-73-9	Thallium (I) carbonate
U216	7791-12-0	Thallium (I) chloride
U216	7791-12-0	Thallium chloride TlCl
U217	10102-45-1	Thallium (I) nitrate
U218	62-55-5	Thioacetamide
U153	74-93-1	Thiomethanol (I,T)
U244	137-26-8	Thioperoxydicarbonic diamide $[(H_2N)C(S)]_2S_2$, tetramethyl-
U219	62-56-6	Thiourea
U244	137-26-8	Thiram
U220	108-88-3	Toluene
U221	25376-45-8	Toluenediamine
U223	26471-62-5	Toluene diisocyanate (R,T)
U328	95-53-4	o-Toluidine
U353	106-49-0	p-Toluidine
U222	636-21-5	o-Toluidine hydrochloride
U011	61-82-5	1H-1,2,4-Triazol-3-amine
U227	79-00-5	1,1,2-Trichloroethane
U228	79-01-6	Trichloroethylene
U121	75-69-4	Trichloromonofluoromethane
See F027	95-95-4	2,4,5-Trichlorophenol
See F027	88-06-2	2,4,6-Trichlorophenol
U234	99-35-4	1,3,5-Trinitrobenzene (R,T)
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-
U235	126-72-7	Tris(2,3-dibromopropyl) phosphate
U236	72-57-1	Trypan blue
U237	66-75-1	Uracil mustard
U176	759-73-9	Urea, N-ethyl-N-nitroso-
U177	684-93-5	Urea, N-methyl-N-nitroso-
U043	75-01-4	Vinyl chloride
U248	P 81-81-2	Warfarin, and salts, when present at concentrations of 0.3% or less
U239	1330-20-7	Xylene (I)
U200	50-55-5	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester, (3beta,16beta,17alpha,18beta,20alpha)-
U249	1314-84-7	Zinc phosphide Zn_3P_2, when present at concentrations of 10% or less

(Source: Amended at 15 Ill. Reg. , effective

Section 721.Appendix C Chemical Analysis Test Methods

The Board incorporates by reference 40 CFR 261, Appendix III (1989), as amended at 54 Fed. Reg. 41407, October 6, 1989, and as amended at 55 Fed. Reg. 8948, March 9, 1990 and at 55 Fed. Reg. 18496, May 2, 1990. This Section incorporates no future editions or modifications.

(Source: Amended at 15 Ill. Reg. , effective

Section 721.Appendix G Basis for Listing Hazardous Wastes

EPA Hazardous Waste No.	Constitutents for which Listed Hazardous
F001	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons.
F002	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2- trifluoroethane, ortho-dichloro-benzene, trichlorofluoromethane.
F003	N.A.
F004	Cresols and cresylic acid, nitrobenzene.
F005	Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, 2-ethoxyethanol, benzene, 2-nitropropane
F006	Cadmium, hexavalent chromium, nickel, cyanide (complexed).
F007	Cyanide (salts).
F008	Cyanide (salts).
F009	Cyanide (salts).
F010	Cyanide (salts).
F011	Cyanide (salts).
F012	Cyanide (complexed).
F019	Hexavalent chromium, cyanide (complexed).
F020	Tetra- and pentachlorodibenzo-p-dioxins; tetra- and penta-chlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amines and other salts.
F021	Penta- and hexachlorodibenzo-p-dioxins; penta- and hexa-chlorodibenzofurans; pentachlorophenol and its derivatives.
F022	Tetra-, penta- and hexachlorodibenzo-p-dioxins; tetra-, penta- and hexachlorodibenzofurans.
F023	Tetra- and pentachlorodibenzo-p-dioxins; tetra- and penta-chlorodibenzofurans; tri- and tetra- chlorophenols and their chlorophenoxy derivative acids, esters, ethers, amines and

other salts.

F024 Chloromethane, dichloromethane, trichloromethane, carbon tetrachloride, chloroethylene, 1,1-dichloroethane, 1,2-dichloroethane, trans-1,2-dichloroethylene, 1,1-dichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethylene, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, tetrachloroethylene, pentachloroethane, hexachloroethane, allyl chloride (3-chloropropene), dichloropropane, dichloropropene, 2-chloro-1,3-butadiene, hexachloro-1,3-butadiene, hexachlorocyclopentadiene, hexachlorocyclohexane, benzene, chlorobenzene, dichlorobenzenes, 1,2,4-trichlorobenzene, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, toluene, naphthalene.

F025 Chloromethane, dichloromethane, trichloromethane; carbon tetrachloride; chloroethylene; 1,1-dichloroethane; 1,2-dichloroethane; trans-1,2-dichloroethylene; 1,1-dichloroethylene; 1,1,1-trichloroethane; 1,1,2-trichloroethane; trichloroethylene; 1,1,1,2-tetrachloroethane; 1,1,2,2-tetrachloroethane; tetrachloroethylene; pentachloroethane; hexachloroethane; allyl chloride (3-chloropropene); dichloropropane; dichloropropene; 2-chloro-1,3-butadiene; hexachloro-1,3-butadiene; hexachlorocyclopentadiene; benzene; chlorobenzene; dichlorobenzene; 1,2,4-trichlorobenzene; tetrachlorobenzene; pentachlorobenzene; hexachlorobenzene; toluene; naphthalene.

F026 Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans.

F027 Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.

F028 Tetra-, penta-, and hexachlorodibenzo-p-dioxins; tetra-, penta-, and hexachlorodibenzofurans; tri-, tetra-, and pentachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amine and other salts.

F039 All constituents for which treatment standards are specified for multi-source leachate (wastewaters and non-wastewaters) under 35 Ill. Adm. Code 728.Table B (Constituent Concentrations in Waste)

K001 Pentachlorophenol, phenol, 2-chlorophenol, p-chloro-m-cresol, 2,4-dimethylphenol, 2,4-dinitrophenol, trichlorophenols, tetrachlorophenols, 2,4-dinitrophenol, cresosote, chrysene, naphthalene, fluoranthene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, benz(a)anthracene, dibenz(a)anthracene, acenaphthalene.

K002 Hexavalent chromium, lead.

K003 Hexavalent chromium, lead.

K004 Hexavalent chromuim.

K005 Hexavalent chromium, lead.

K006 Hexavalent chromium.

K007 Cyanide (complexed), hexavalent chromium.

K008 Hexavalent chromium.

K009 Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid.

K010 Chloroform, formaldehyde, methylene chloride, methyl chloride, paraldehyde, formic acid, chloroacetaldehyde.

K011 Acrylonitrile, acetonitrile, hydrocyanic acid.

K013 Hydro cyanic acid, acrylonitrile, acetonitrile.

K014 Acetonitrile, acrylamide.

K015 Benzyl chloride, chlorobenzene, toluene, benzotrichloride.

K016 Hexachlorobenzene, hexachlorobutadiene, carbon tetrachloride, hexachloroethane, perchloroethylene.

K017 Epichlorohydrin, chloroethers [bis(chloromethyl) ether and bis-(2-chloroethyl) ethers], trichloropropane, dichloropropanols.

K018 1,2-dichloroethane, trichloroethylene, hexachlorobutadiene, hexachlorobenzene.

K019 Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloroethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.

K020 Ethylene dichloride, 1,1,1-trichloroethane, 1,1,2-trichloroethane, tetrachloro-ethanes (1,1,2,2-tetrachloroethane and 1,1,1,2-tetrachloroethane), trichloroethylene, tetrachloroethylene, carbon tetrachloride, chloroform, vinyl chloride, vinylidene chloride.

K021 Antimony, carbon tetrachloride, chloroform.

K022 Phenol, tars (polycyclic aromatic hydrocarbons).

K023 Phthalic anhydride, maleic anhydride.

K024 Phthalic anhydride, 1,4-naphthoguinone.

K025 Meta-dinitrobenzene, 2,4-dinitrotoluene.

K026 Paraldehyde, pyridines, 2-picoline.

K027 Toluene diisocyanate, toluene-2, 4-diamine.

K028 1,1,1-trichloroethane, vinyl chloride.

K029 1,2-dichloroethane, 1,1,1-trichloroethane, vinyl chloride, vinylidene chloride, chloroform.

K030 Hexachlorobenzene, hexachlorobutadiene, hexachloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane, ethylene dichloride.

K031 Arsenic.

K032 Hexachlorocyclopentadiene.

K033 Hexachlorocyclopentadiene.

K034 Hexachlorocyclopentadiene.

K035 Creosote, chrysene, naphthalene, fluoranthene, benzo(b) fluoranthene, benzo(a)-pyrene, indeno(1,2,3-cd) pyrene, benzo(a)anthracene, dibenzo(a)anthracene, acenaphthalene.

K036 Toluene, phosphorodithioic and phosphorothioic acid esters.

K037 Toluene, phosphorodithioic and phosphorothioic acid esters.

K038 Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.

K039 Phosphorodithioic and phosphorothioic acid esters.

K040 Phorate, formaldehyde, phosphorodithioic and phosphorothioic acid esters.

K041 Toxaphene.

K042 Hexachlorobenzene, ortho-dichlorobenzene.

K043 2,4-dichlorophenol, 2,6-dichlorophenol, 2,4,6-trichlorophenol.

K044 N.A.

K045 N.A.

K046 Lead

K047 N.A.

K048 Hexavalent chromium, lead.

K049 Hexavalent chromium, lead.

K050 Hexavalent chromium.

K051 Hexavalent chromium, lead.

K052 Lead

K060 Cyanide, naphthalene, phenolic compounds, arsenic.

K061 Hexavalent chromium, lead, cadmium.

K062 Hexavalent chromium, lead.

K064 Lead, cadmium

K065 Lead, cadmium

K066 Lead, cadmium

K069 Hexavalent chromium, lead, cadmium.

K071 Mercury.

K073 Chloroform, carbon tetrachloride, hexachloroethane, trichloroethane, tetrachloroethylene, dichloroethylene, 1,1,2,2-tetrachloroethane.

K083 Aniline, diphenylamine, nitrobenzene, phenylenediamine.

K084 Arsenic.

K085 Benzene, dichlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, pentachlorobenzene, hexachlorobenzene, benzyl chloride.

K086 Lead, hexavalent chromium.

K087 Phenol, naphthalene.

K088 Cyanide (complexes)

K090 Chromium

K091 Chromium

K093 Phthalic anhydride maleic anhydride.

K094 Phthalic anhydride.

K095 1,1,2-trichloroethane, 1,1,1,2-tetrachloroethane, 1,1,2,2-tetrachloroethane.

K096 1,2-dichloroethane, 1,1,1,-trichloroethane, 1,1,2-trichloroethane.

K097 Chlordane, heptachlor.

K098 Toxaphene.

K099 2,4-dichlorophenol, 2,4,6-trichlorophenol.

K100 Hexavalent chromium, lead, cadmium.

K101 Arsenic.

K102 Arsenic.

K103 Aniline, nitrobenzene, phenylenediamine.

K104 Aniline, benzene, diphenylamine, nitrobenzene, phynylenediamine.

K105 Benzene, monochlorobenzene, dichlorobenzenes, 2,4,6-trichlorophenol.

K106 Mercury.

K107 1,1-Dimethylhydrazine (UDMH)

K108 1,1-Dimethylhydrazine (UDMH)

K109 1,1-Dimethylhydrazine (UDMH)

K110 1,1-Dimethylhydrazine (UDMH)

K111 2,4-Dinitrotoluene.

K112 2,4-Toluenediamine, o-toluidine, p-toluidine, aniline.

K113 2,4-Toluenediamine, o-toluidine, p-toluidine, aniline.

K114 2,4-Toluenediamine, o-toluidine, p-toluidine.

K115 2,4-Toluenediamine.

K116 Carbon tetrachloride, tetrachloroethylene, chloroform, phosgene.

K117 Ethylene dibromide

K118 Ethylene dibromide

K123 Ethylene thiourea

K124 Ethylene thiourea

K125 Ethylene thiourea

K126 Ethylene thiourea

K131 Dimethyl sulfate, methyl bromide

K132 Methyl bromide

K136 Ethylene dibromide

N.A.--Waste is hazardous because it fails the test for the characteristic of ignitability, corrosivity or reactivity.

(Source: Amended at 15 Ill. Reg. , effective

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

PART 722
STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE

SUBPART A: GENERAL

SUBPART B: THE MANIFEST

SUBPART C: PRE-TRANSPORT REQUIREMENTS

SUBPART D: RECORDKEEPING AND REPORTING

SUBPART E: EXPORTS OF HAZARDOUS WASTE

SUBPART F: IMPORTS OF HAZARDOUS WASTE

SUBPART G: FARMERS

Section
722.170 Farmers

Appendix A Hazardous Waste Manifest

AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1989, ch. 111 1/2, pars. 1022.4 and 1027).

SOURCE: Adopted in R81-22, 43 PCB 427, at 5 Ill. Reg. 9781, effective as noted in 35 Ill. Adm. Code 700.106; amended and codified in R81-22, 45 PCB 317, at 6 Ill. Reg. 4828, effective as noted in 35 Ill. Adm. Code 700.106; amended in R82-18, 51 PCB 31, at 7 Ill. Reg. 2518, effective February 22, 1983; amended in R84-9 at 9 Ill. Reg. 11950, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 1131, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 14112, effective August 12, 1986; amended in R86-19 at 10 Ill. Reg. 20709, effective December 2, 1986; amended in R86-46 at 11 Ill. Reg. 13555, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19392, effective November 12, 1987; amended in R87-39 at 12 Ill. Reg. 13129, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 452, effective December 27, 1988; amended in R89-1 at 13 Ill. Reg. 18523, effective November 13, 1989; amended in R90-10 at 14 Ill. Reg. , effective September 25, 1990; amended in R90-11 at 15 Ill. Reg. , effective

SUBPART A: GENERAL

Section 722.111 Hazardous Waste Determination

A person who generates a solid waste, as defined in 35 Ill. Adm. Code 721.102, shall determine if that waste is a hazardous waste using the following method:

a) The person should first determine if the waste is excluded from regulation under 35 Ill. Adm. Code 721.104.

b) The person should then determine if the waste is listed as a hazardous waste in 35 Ill. Adm. Code 721.Subpart D.

(Board Note: Even if a waste is listed, the generator still has an opportunity under 35 Ill. Adm. Code 720.122 and 40 CFR 260.22 (1986) to demonstrate that the waste from the generator's particular facility or operation is not a hazardous waste.

c) <u>For purposes of compliance with 35 Ill. Adm. Code 728, or if</u>~~If~~ the waste is not listed as a hazardous waste in

35 Ill. Adm. Code 721.Subpart D, the generator ~~should~~shall then determine whether the waste is identified in 35 Ill. Adm. Code 721.Subpart C by either:

1) Testing the waste according to the methods set forth in 35 Ill. Adm. Code 721.Subpart C, or according to an equivalent method approved by the Board under 35 Ill. Adm. Code 720.120; or

2) Applying knowledge of the hazard characteristic of the waste in light of the materials or processes used.

d) If the generator determines that the waste is hazardous, the generator shall refer to 35 Ill. Adm. Code 724, 725 and 728 for possible exclusions or restrictions pertaining to the management of the specific waste.

(Source: Amended at 15 Ill. Reg. , effective

SUBPART C: PRE-TRANSPORT REQUIREMENTS

Section 722.134 Accumulation Time

a) Except as provided in subsections (d),(e) or (f), a generator may accumulate hazardous waste on-site for 90 days or less without a permit or without having interim status provided that:

1) The waste is placed in containers and the generator complies with 35 Ill. Adm. Code 725.Subpart I or the waste is placed in tanks and the generator complies with 35 Ill. Adm. Code 725.Subpart J except 35 Ill. Adm. Code 725.297(c) and 725.300. In addition, such a generator is exempt from all the requirements in 35 Ill. Adm. Code 725.Subparts G and H, except for 35 Ill. Adm. Code 725.211 and 725.214;

2) The date upon which each period of accumulation begins is clearly marked and visible for inspection on each container;

3) While being accumulated on-site, each container and tank is labeled or marked clearly with the words, "Hazardous Waste", and

4) The generator complies with the requirements for owners or operators in 35 Ill. Adm. Code

725.Subparts C and D, ~~and~~ with 35 Ill. Adm. Code 725.116 and 728.107(a)(4).

b) A generator who accumulates hazardous waste for more than 90 days is an operator of a storage facility and is subject to the requirements of 35 Ill. Adm. Code 724 and 725 and the permit requirements of 35 Ill. Adm. Code 702, 703 and 705 unless the generator has been granted an extension of the 90-day period. If hazardous wastes must remain on-site for longer than 90 days due to unforeseen, temporary, and uncontrollable circumstances, the generator may seek an extension of up to 30 days by means of a variance or provisional variance, pursuant to Section 37 of the Environmental Protection Act.

c) Accumulation near point of generation.

1) A generator may accumulate as much as 55 gallons of hazardous waste or one quart of acutely hazardous waste listed in 35 Ill. Adm. Code 721.133(e) in containers at or near any point of generation where wastes initially accumulate, which is under the control of the operator of the process generating the waste, without a permit or interim status and without complying with paragraph (a) provided the generator:

A) Complies with 35 Ill. Adm. Code 725.271, 725.272 and 725.273(a); and

B) marks the generator's containers either with the words "Hazardous Waste" or with other words that identify the contents of the containers.

2) A generator who accumulates either hazardous waste or acutely hazardous waste listed in 35 Ill. Adm. Code 721.133(e) in excess of the amounts listed in subsection (c)(1) at or near any point of generation must, with respect to that amount of excess waste, comply within three days with subsection (a) or other applicable provisions of this chapter. During the three day period the generator must continue to comply with subsection (c)(1). The generator must mark the container holding the excess accumulation of hazardous waste with the date the excess amount began accumulating.

d) A generator who generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a

calendar month may accumulate hazardous waste on-site for 180 days or less without a permit or without having interim status provided that:

1) The quantity of waste accumulated on-site never exceeds 6000 kilograms;

2) The generator complies with the requirements of 35 Ill. Adm. Code 725.Subpart I, except the generator need not comply with 35 Ill. Adm. Code 725.276;

3) The generator complies with the requirements of 35 Ill. Adm. Code 725.301;

4) The generator complies with the requirements of subsections (a)(2) and (a)(3) and the requirements of 35 Ill. Adm. Code 725.Subpart C; and

5) The generator complies with the following requirements:

   A) At all times there must be at least one employee either on the premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures specified in subsection (d)(4)(D). The employee is the emergency coordinator.

   B) The generator shall post the following information next to the telephone:

      i) The name and telephone number of the emergency coordinator:

      ii) Location of fire extinguishers and spill control material, and if present, fire alarm: and

      iii) The telephone number of the fire department, unless the facility has a direct alarm.

   C) The generator shall ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies:

   D) The emergency coordinator or designee shall respond to any emergencies that arise. The

applicable responses are as follows:

i) In the event of a fire, call the fire department or attempt to extinguish it using a fire extinguisher:

ii) In the event of a spill, contain the flow of hazardous waste to the extent possible, and as soon as is practicable, clean up the hazardous waste and any contaminated materials or soil:

iii) In the event of a fire, explosion or other release which could threaten human health outside the facility or when the generator has knowledge that a spill has reached surface water, the generator shall immediately notify the National Response Center (using its 24-hour toll free number 800/424-8802). The report must include the following information: the name, address and USEPA identification number (35 Ill. Adm. Code 722.112) of the generator; date, time and type of incident (e.g., spill or fire); quantity and type of hazardous waste involved in the incident; extent of injuries, if any; and, estimated quantity and disposition of recoverable materials, if any.

e) A generator who generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month and who must transport the waste, or offer the waste for transportation, over a distance of 200 miles or more for off-site treatment, storage or disposal may accumulate hazardous waste on-site for 270 days or less without a permit or without having interim status provided that the generator complies with the requirements of subsection (d).

f) A generator who generates greater than 100 kilograms but less than 1000 kilograms of hazardous waste in a calendar month and who accumulates hazardous waste in quantities exceeding 6000 kg or accumulates hazardous waste for more than 180 days (or for more than 270 days if the generator must transport the waste, or offer the waste for transportation, over a distance of 200 miles or more) is an operator of a storage facility and is subject to the requirements of 35 Ill. Adm. Code 724 and 725 and the permit requirements of 35 Ill. Adm. Code 703 unless the generator has been granted an

extension to the 180-day (or 270-day if applicable) period. If hazardous wastes must remain on-site for longer than 180 days (or 270 days if applicable) due to unforeseen, temporary and uncontrollable circumstances, the generator may seek an extension of up to 30 days by means of variance or provisional variance pursuant to Section 37 of the Environmental Protection Act.

(Source: Amended at 15 Ill. Reg. , effective

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

PART 724
STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE AND DISPOSAL FACILITIES

SUBPART A: GENERAL PROVISIONS

SUBPART B: GENERAL FACILITY STANDARDS

SUBPART C: PREPAREDNESS AND PREVENTION

SUBPART D: CONTINGENCY PLAN AND EMERGENCY PROCEDURES

SUBPART E: MANIFEST SYSTEM, RECORDKEEPING AND REPORTING

SUBPART F: RELEASES FROM SOLID WASTE MANAGEMENT UNITS

SUBPART G: CLOSURE AND POST-CLOSURE

SUBPART H: FINANCIAL REQUIREMENTS

SUBPART I: USE AND MANAGEMENT OF CONTAINERS

SUBPART J: TANK SYSTEMS

SUBPART K: SURFACE IMPOUNDMENTS

SUBPART L: WASTE PILES

SUBPART M: LAND TREATMENT

SUBPART N: LANDFILLS

SUBPART O: INCINERATORS

SUBPART X: MISCELLANEOUS UNITS

AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1989, ch. 111 1/2, pars. 1022.4 and 1027).

SOURCE: Adopted in R82-19, 53 PCB 131, at 7 Ill. Reg. 14059, effective October 12, 1983; amended in R84-9 at 9 Ill. Reg. 11964, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 1136, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 14119, effective August 12, 1986; amended in R86-28 at 11 Ill. Reg. 6138, effective March 24, 1987; amended in R86-28 at 11 Ill.

Reg. 8684, effective April 21, 1987; amended in R86-46 at 11 Ill. Reg. 13577, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19397, effective November 12, 1987; amended in R87-39 at 12 Ill. Reg. 13135, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 458, effective December 28, 1988; amended in R89-1 at 13 Ill. Reg. 18527, effective November 13, 1989; amended in R90-2 at 14 Ill. Reg. 14511, effective August 22, 1990; amended in R90-10 at 14 Ill. Reg. 16658, effective September 25, 1990; amended in R90-11 at 15 Ill. Reg. effective

SUBPART B: GENERAL FACILITY STANDARDS

Section 724.113 General Waste Analysis

a) Analysis:

1) Before an owner or operator treats, stores or disposes of any hazardous waste, or non-hazardous waste if applicable under Section 724.213(d), the owner or operator shall obtain a detailed chemical and physical analysis of a representative sample of the waste. At a minimum, this analysis must contain all the information which must be known to treat, store or dispose of the waste in accordance with the requirements of this Part or 35 Ill. Adm. Code 728, or with the conditions of a permit issued under 35 Ill. Adm. Code 702, 703 and 705.

2) The analysis may include data developed under 35 Ill. Adm. Code 721, and existing published or documented data on the hazardous waste or on hazardous waste generated from similar processes.

BOARD NOTE: For example, the facility's records of analyses performed on the waste before the effective date of these regulations, or studies conducted on hazardous waste generated from processes similar to that which generated the waste to be managed at the facility, may be included in the data base required to comply with subsection (a)(1). The owner or operator of an off-site facility may arrange for the generator of the hazardous waste to supply part or all of the information required by subsection (a)(1), except as otherwise specified in 35 Ill. Adm. Code 728.107(b) and (c). If the generator does not supply the information, and the owner or operator chooses to accept a hazardous waste, the owner or operator is responsible for obtaining the information required to comply with this Section.

3) The analysis must be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis must be repeated:

A) When the owner or operator is notified, or has reason to believe, that the process or operation generating the hazardous waste, or non-hazardous waste if applicable under Section 724.213(d), has changed; and

B) For off-site facilities, when the results of the inspection required in subsection (a)(4) indicate that the hazardous waste received at the facility does not match the waste designated on the accompanying manifest or shipping paper.

4) The owner or operator of an off-site facility shall inspect and, if necessary, analyze each hazardous waste movement received at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.

b) The owner or operator shall develop and follow a written waste analysis plan which describes the procedures which it will carry out to comply with subsection (a). The owner or operator shall keep this plan at the facility. At a minimum, the plan must specify:

1) The parameters for which each hazardous waste, or non-hazardous waste if applicable under Section 724.213(d), will be analyzed and the rationale for the selection of these parameters (i.e., how analysis for these parameters will provide sufficient information on the waste's properties to comply with subsection (a)).

2) The test methods which will be used to test for these parameters.

3) The sampling method which will be used to obtain a representative sample of the waste to be analyzed. A representative sample may be obtained using either:

A) One of the sampling methods described in 35 Ill. Adm. Code 721.Appendix A; or

B) An equivalent sampling method.

BOARD NOTE: See 35 Ill. Adm. Code 720.121 for related discussion.

4) The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date.

5) For off-site facilities, the waste analyses that hazardous waste generators have agreed to supply.

6) Where applicable, the methods which will be used to meet the additional waste analysis requirements for specific waste management methods as specified in Sections 724.117, 724.414, ~~and~~ 724.441, 724.934(d) and 724.963(d), and 35 Ill. Adm. Code 728.107. And,

7) For surface impoundments exempted from land disposal restrictions under 35 Ill. Adm. Code 728.104(a), the procedures and schedules for:

A) The sampling of impoundment contents;

B) The analysis of test data; and,

C) The annual removal of residues which are not delisted under 35 Ill. Adm. Code 720.122 or which exhibit a characteristic of hazardous waste, and either:

i) Do not meet applicable treatment standards of 35 Ill. Adm. Code 728.Subpart D; or

ii) Where no treatment standards have been established: Such residues are prohibited from land disposal under 35 Ill. Adm. Code 728.132 or 728.139; or such residues are prohibited from land disposal under 35 Ill. Adm. Code 728.133(f).

c) For off-site facilities, the waste analysis plan required in subsection (b) must also specify the procedures which will be used to inspect and, if necessary, analyze each movement of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. At a minimum, the plan must describe:

1) The procedures which will be used to determine the identity of each movement of waste managed at the facility; and

2) The sampling method which will be used to obtain a representative sample of the waste to be identified, if the identification method includes sampling.

BOARD NOTE: 35 Ill. Adm. Code 703, requires that the waste analysis plan be submitted with Part B of the permit application.

(Source: Amended at 15 Ill. Reg. , effective

Section 724.115 General Inspection Requirements

a) The owner or operator shall conduct inspections often enough to identify problems in time to correct them before they harm human health or the environment. The owner or operator shall inspect the facility for malfunctions and deterioration, operator errors and discharges which may be causing, or may lead to:

1) Release of hazardous waste constituents to the environment; or

2) A threat to human health.

b) Inspection schedule.

1) The owner or operator shall develop and follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting or responding to environmental or human health hazards.

2) The owner or operator shall keep this schedule at the facility.

3) The schedule must identify the types of problems (e.g., malfunctions or deterioration) which are to be looked for during the inspection (e.g., inoperative sump pump, leaking fitting, eroding dike, etc.).

4) The frequency of inspection may vary for the items on the schedule. However, it should be based on the rate of possible deterioration of the

equipment and the probability of an environmental or human health incident if the deterioration, malfunction or any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use. At a minimum, the inspection schedule must include the terms and frequencies called for in Sections 724.274, 724.294, 724.326, 724.353, 724.354, 724.403, 724.447, ~~and~~ 724.702, 724.933, 724.952, 724.953 and 724.958, where applicable.

BOARD NOTE: 35 Ill. Adm. Code 703 requires the inspection schedule to be submitted with Part B of the permit application. The Agency will evaluate the schedule along with the rest of the application to ensure that it adequately protects human health and the environment. As part of this review, the Agency may modify or amend the schedule as may be necessary.

c) The owner or operator shall remedy any deterioration or malfunction of equipment or structures which the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.

d) The owner or operator shall record inspections in an inspection log or summary. The owner or operator shall keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made and the date and nature of any repairs or other remedial actions.

(Source: Amended at 15 Ill. Reg. effective

SUBPART E: MANIFEST SYSTEM, RECORDKEEPING AND REPORTING

Section 724.173 Operating Record

a) The owner or operator shall keep a written operating record at the facility.

b) The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

1) A description and the quantity of each hazardous waste received, and the methodor methods and date or dates of its treatment, storage or disposal at the facility as required by Appendix A;

2) The location of each hazardous waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each hazardous waste must be recorded on a map or diagram of each cell or disposal area. For all facilities, this information must include cross-references to specific manifest document numbers, if the waste was accompanied by a manifest;

BOARD NOTE: See Section 724.219 for related requirements.

3) Records and results of waste analyses performed as specified in Sections 724.113, 724.117, 724.414, ~~and~~ 724.441, 724.934, 724.963, and in 35 Ill. Adm. Code 728.104(a) and 728.107;

4) Summary reports and details of all incidents that require implementing the contingency plan as specified in Section 724.156(j);

5) Records and results of inspections as required by Section 724.115(d) (except these data need to be kept only three years);

6) Monitoring, testing or analytical data and corrective action where required by Subpart F or Sections 724.326, 724.353, 724.354, 724.376, 724.378, 724.380, 724.403, 724.409, 724.447, ~~or~~ 724.702, 724.934(c) through (f), 724.935, 724.963(d) through (i) or 724.964.

7) For off-site facilities, notices to generators as specified in Section 724.112(b);

8) All closure cost estimates under Section 724.242 and, for disposal facilities, all post-closure cost estimates under Section 724.244;

9) A certification by the permittee, no less often than annually: that the permittee has a program in place to reduce the volume and toxicity of hazardous waste that the permittee generates, to the degree the permittee determines to be economically practicable; and that the proposed method of treatment, storage or disposal is that

practicable method currently available to the permittee which minimizes the ~~persent~~present and future threat to human health and the environment;

10) Records of the quantities (and date of placement) for each shipment of hazardous waste placed in land disposal units under an extension of the effective date of any land disposal restriction granted pursuant to 35 Ill. Adm. Code 728.105, a petition pursuant to 35 Ill. Adm. Code 728.106 or a certification under 35 Ill. Adm. Code 728.108, and the applicable notice required of a generator under 35 Ill. Adm. Code 728.107(a);

11) For an off-site treatment facility, a copy of the notice, and the certification and demonstration, if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108;

12) For an on-site treatment facility, the information contained in the notice (except the manifest number), and the certification and demonstration, if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108;

13) For an off-site land disposal facility, a copy of the notice, and the certification and demonstration, if applicable, required of the generator or the owner or operator of a treatment facility under 35 Ill. Adm. Code 728.107 or 728.108, whichever is applicable; and

14) For an on-site land disposal facility, the information contained in the notice required of the generator or owner or operator of a treatment facility under 35 Ill. Adm. Code 728.107, except for the manifest number, and the certification and demonstration if applicable, required under 35 Ill. Adm. Code 728.108, whichever is applicable.

15) For an off-site storage facility, a copy of the notice, and the certification and demonstration if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108; and,

16) For an on-site storage facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required of the generator or the

owner or operator under 35 Ill. Adm. Code 728.107 or 728.108.

(Source: Amended at 15 Ill. Reg. , effective

Section 724.177 Additional Reports

In addition to submitting the annual report and unmanifested waste reports described in Sections 724.175 and 724.176, the owner or operator ~~must~~shall also report to the Agency:

a) Releases, fires and explosions as specified in Section 724.156(j);

b) Facility closures specified in Section 724.215; and

c) As otherwise required by Subparts ~~F and K-N~~F, K through N, AA and BB.

(Source: Amended at 15 Ill. Reg. effective

SUBPART K: SURFACE IMPOUNDMENTS

Section 724.321 Design and Operating Requirements

a) Any s~~S~~urface impoundment that it not covered by subsection (c) or 35 Ill. Adm. Code 725.321 must have a liner for all portions of the impoundment (except for existing portions of such impoundment). The liner must be designed, constructed and installed to prevent any migration of wastes out of the impoundment to the adjacent subsurface soil or ~~ground-water~~groundwater or surface water at any time during the active life (including the closure period) of the impoundment. The liner may be constructed of materials that may allow wastes to migrate into the liner (but not into the adjacent subsurface soil or ~~ground-water~~groundwater or surface water) during the active life of the facility, provided that the impoundment is closed in accordance with Section 724.328(a)(1). For impoundments that will be closed in accordance with Section 724.328(a)(2), the liner must be constructed of materials that can prevent wastes from migrating into the liner during the active life of the facility. The liner must be:

1) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the

waste or leachate to which they are exposed, climatic conditions, the stress of installation and the stress of daily operation;

2) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression or uplift; and

3) Installed to cover all surrounding earth likely to be in contact with the waste or leachate.

b) The owner or operator will be exempted from the requirements of subsection (a) if the Board finds, based on a demonstration by the owner or operator, in a variance and/or site-specific rulemaking, that alternate design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents (see Section 724.193) into the ~~ground-water~~groundwater or surface water at any future time. In deciding whether to grant an exemption, the Board will consider:

1) The nature and quantity of the wastes;

2) The proposed alternate design and operation;

3) The hydrogeologic setting of the facility, including the attenuative capacity and thickness of the liners and soils present between the impoundment and ~~ground-water~~groundwater or surface water; and

4) All other factors which would influence the quality and mobility of the leachate produced and the potential for it to migrate to ~~ground-water~~groundwater or surface water.

c) The owner or operator of each new surface impoundment, each new surface impoundment unit at an existing facility, each replacement of an existing surface impoundment unit and each lateral expansion of an existing surface impoundment unit, must install two or more liners and a leachate collection system between such liners. The liners and leachate collection system must protect human health and the environment. The requirements of this subsection ~~shall~~ apply with respect to all waste received after the issuance of the permit for units where Part B of the permit application is received by the Agency or USEPA after November 8, 1984. The requirement for the installation of two or

more liners in this subsection may be satisfied by the installation of a top liner designed, operated and constructed of materials to prevent the migration of any constituent into such liner during the period such facility remains in operation (including any post-closure monitoring period), and a lower liner designed, operated and constructed to prevent the migration of any constituent through such liner during such period. For the purpose of the preceding sentence, a lower liner shall be deemed to satisfy such requirement if it is constructed of at least a 3-foot thick layer of recompacted clay or other natural material with a permeability of no more than 1×10^{-7} centimeter per second.

d) Subsection (c) will not apply if the owner or operator demonstrates to the Agency and the Agency finds for such surface impoundment, that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituent into the ~~ground-water~~groundwater or surface water at least as effectively as such liners and leachate collection systems.

e) The double liner requirement set forth in subsection (c) may be waived by the Agency for any monofill, if:

1) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes do not contain constituents which would render the wastes hazardous for reasons other than the ~~EP~~ toxicity characteristics in 35 Ill. Adm. Code 721.124; and

2) Design and location.

A) Liner, location and groundwater monitoring.

i) The monofill has at least one liner for which there is no evidence that such liner is leaking. For the purposes of this subsection, the term "liner" means a liner designed, constructed, installed and operated to prevent hazardous waste from passing into the liner at any time during the active life of the facility, or a liner designed, constructed, installed and operated to prevent hazardous waste from migrating beyond the liner to adjacent subsurface soil, groundwater or surface water at any time during the active life of the facility.

In the case of any surface impoundment which has been exempted from the requirements of subsection (c) on the basis of a liner designed, constructed, installed and operated to prevent hazardous waste from passing beyond the liner, at the closure of such impoundment, the owner or operator must remove or decontaminate all waste residues, all contaminated liner material and contaminated soil to the extent practicable. If all contaminated soil is not removed or decontaminated, the owner or operator of such impoundment will comply with appropriate post-closure requirements, including but not limited to groundwater monitoring and corrective action;

ii) The monofill is located more than one-quarter mile from an underground source of drinking water (as that term is defined in 35 Ill. Adm. Code 702.110 and

iii) The monofill is in compliance with generally applicable ~~ground-water~~groundwater monitoring requirements for facilities with permits or

B) ~~RCRA~~

The owner or operator demonstrates to the Board that the monofill is located, designed and operated so as to assure that there will be no migration of any hazardous constituent into ~~ground-water~~groundwater or surface water at any future time.

f) A surface impoundment must be designed, constructed, maintained and operated to prevent overtopping resulting from normal or abnormal operations; overfilling; wind and wave action; rainfall; run-on; malfunctions of level controllers, alarms and other equipment; and human error.

g) A surface impoundment must have dikes that are designed, constructed and maintained with sufficient structural integrity to prevent massive failure of the dikes. In ensuring structural integrity, it must not be presumed that the liner system will function without leakage during the active life of the unit.

h) The Agency will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this Section are satisfied.

(Source: Amended at 15 Ill. Reg. effective

Section 724.329 Special Requirements for Ignitable or Reactive Waste

Ignitable or reactive waste must not be placed in a surface impoundment, unless the waste and impoundment satisfy all applicable requirements of 35 Ill. Adm. Code 728, and:

a) The waste is treated, rendered or mixed before or immediately after placement in the impoundment so that:

1) The resulting waste, mixture or dissolution of material no longer meets the definition of ignitable or reactive waste under 35 Ill. Adm. Code 721.121 or 721.123; and

2) Section 724.117(b) is complied with; or

b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react; or

c) The surface impoundment is used solely for emergencies.

(Source: Amended at 15 Ill. Reg. effective

SUBPART L: WASTE PILES

Section 724.356 Special Requirements for Ignitable or Reactive Waste

Ignitable or reactive waste must not be placed in a waste pile, unless the waste and waste pile satisfy all applicable requirements of 35 Ill. Adm. Code 728, and:

a) The waste is treated, rendered or mixed before or immediately after placement in the pile so that:

1) The resulting waste, mixture or dissolution of material no longer meets the definition of ignitable or reactive waste under 35 Ill. Adm. Code 721.121 or 721.123; and

2) Section 724.117(b) is complied with; or

b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

(Source: Amended at 15 Ill. Reg. , effective

SUBPART M: LAND TREATMENT

Section 724.381 Special Requirements for Ignitable or Reactive Waste

The owner or operator must not apply ignitable or reactive waste to the treatment zone, unless the waste and and the treatment zone satisfy all applicable requirements of 35 Ill. Adm. Code 728, and:

a) The waste is immediately incorporated into the soil so that:

1) The resulting waste, mixture or dissolution of material no longer meets the definition of ignitable or reactive waste under 35 Ill. Adm. Code 721.121 or 721.123; and

2) Section 724.117(b) is complied with; or

b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

(Source: Amended at 15 Ill. Reg. , effective

SUBPART N: LANDFILLS

Section 724.401 Design and Operating Requirements

a) Any landfill that is not covered by subsection (c) or 35 Ill. Adm. Code 725.401(a) must have a liner system for all portions of the landfill (except for existing portions of such landfill). The liner system must have:

1) A liner that is designed, constructed and installed to prevent any migration of wastes out of the landfill to the adjacent subsurface soil or groundwater or surface water at any time during the active life (including the closure period) of the landfill. The liner must be constructed of materials that prevent wastes from passing into the liner during the active life of the facility.

The liner must be:

A) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation and the stress of daily operation;

B) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression or uplift; and

C) Installed to cover all surrounding earth likely to be in contact with the waste or leachate; and

2) A leachate collection and removal system immediately above the liner that is designed, constructed, maintained and operated to collect and remove leachate from the landfill. The Agency will specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm (one foot). The leachate collection and removal system must be:

A) Constructed of materials that are:

i) Chemically resistant to the waste managed in the landfill and the leachate expected to be generated; and

ii) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials and by any equipment used at the landfill; and

B) Designed and operated to function without clogging through the scheduled closure of the landfill.

b) The owner or operator will be exempted from the requirements of subsection (a) if the Board finds, based on a demonstration by the owner or operator, in a variance and/or site-specific rulemaking, that alternative design and operating practices, together with

location characteristics, will prevent the migration of any hazardous constituents (see Section 724.193) into the groundwater or surface water at any future time. In deciding whether to grant an exemption, the Board will consider:

1) The nature and quantity of the wastes;

2) The proposed alternate design and operation;

3) The hydrogeologic setting of the facility, including the attenuative capacity and thickness of the liners and soils present between the landfill and groundwater or surface water; and

4) All other factors which would influence the quality and mobility of the leachate produced and the potential for it to migrate to groundwater or surface water.

c) The owner or oprator of each new landfill, each new landfill unit at an existing facility, each replacement of an existing landfill unit and each lateral expansion of an existing landfill unit, must install two or more liners and a leachate collection system above and between the liners. The liners and leachate collection systems must protect human health and the environment. This subsection applies with respect to all waste received after issuance of the permit for units where Part B of the permit application is received by the Agency or USEPA after November 8, 1984. The requirement for the installation of two or more liners in this subsection may be satisfied by the installation of a top liner designed, operated and constructed of materials to prevent the migration of any constituent into such liner during the period such facility remains in operation (including any post-closure monitoring period), and a lower liner designed, operated and constructed to prevent the migration of any constituent through such liner during such period. For the purpose of the preceding sentence, a lower liner shall be deemed to satisfy such requirement if it is constructed of at least a 3-foot thick layer of recompacted clay or other natural material with a permeability of no more than 1×10^{-7} centimeter per second.

d) Subsection (c) will not apply if the owner or operator demonstrates to the Agency, and the Agency finds for such landfill, that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituent into the groundwater or surface water at least as

effectively as such liners and leachate collection systems.

e) The double liner requirement set forth in subsection (c) be waived by the Agency for any monofill, if:

1) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes do not contain constituents which would render the wastes hazardous for reasons other than the toxicity characteristic in 35 Ill. Adm. Code 721.124, with USEPA hazardous waste numbers D004 through D017; and

2) No migration demonstration.

A) Design and location requirements.

i) The monofill has at least one liner for which there is no evidence that such liner is leaking.

ii) The monofill is located more than one-quarter mile from an underground source of drinking water (as that term is defined in 35 Ill. Adm. Code 702.110.

iii) The monofill is in compliance with generally applicable groundwater monitoring requirements for facilities with RCRA permits; or

B) The owner or operator demonstrates to the Board that the monofill is located, designed and operated so as to assure that there will be no migration of any hazardous constituent into groundwater or surface water at any future time.

f) The owner or operator must design, construct, operate and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a 25-year storm.

g) The owner or operator must design, construct, operate and maintain a run-off management system to collect and control at least the water volume resulting from a 24 hour, 25-year storm.

h) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control

systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

i) If the landfill contains any particulate matter which may be subject to wind dispersal, the owner or operator must cover or otherwise manage the landfill to control wind dispersal.

j) The Agency will specify in the permit all design and operating practices that are necessary to ensure that the requirements of this Section are satisfied.

(Source: Amended at 15 Ill. Reg. , effective

Section 724.412 Special Requirements for Ignitable or Reactive Waste

a) Except as provided in ~~paragraph~~subsection (b) and in Section 724.416, ignitable or reactive waste must not be placed in a landfill, unless the waste and landfill meet all applicable requirements of 35 Ill. Adm. Code 728, and the waste is treated, rendered or mixed before or immediately after placement in a landfill so that:

1) The resulting waste, mixture or dissolution of material no longer meets the definition of ignitable or reactive waste under 35 Ill. Adm. Code 721.121 or 721.123; and

2) Section 724.117(b) is complied with.

b) -IExcept for prohibited wastes which remain subject to treatment standards in 35 Ill. Adm. Code.Subpart D, ignitable waste in containers may be landfilled without meeting the requirements of ~~paragraph~~subsection (a) provided that the wastes are disposed of in such a way that they are protected from any material or conditions which may cause them to ignite. At a minimum, ignitable wastes must be disposed of in non-leaking containers which are carefully handled and placed so as to avoid heat, sparks, rupture or any other condition that might cause ignition of the wastes; must be covered daily with soil or other non-combustible material to minimize the potential for ignition of the wastes; and must not be disposed of in cells that contain or will contain other wastes which may generate heat sufficient to cause ignition of the waste.

(Source: Amended at 15 Ill. Reg. , effective

Section 724.416 Disposal of Small Containers of Hazardous Waste in Overpacked Drums (Lab Packs)

Small containers of hazardous waste in overpacked drums (lab packs) may be placed in a landfill if the following requirements are met:

a) Hazardous waste must be packaged in non-leaking inside containers. The inside containers must be of a design and constructed of a material that will not react dangerously with, be decomposed by or be ignited by the contained waste. The inside containers must be tightly and securely sealed. The inside containers must be of the size and type specified in the Department of Transportation (DOT) hazardous materials regulations (49 CFR 173, 178 and 179), if those regulations specify a particular inside container for the waste.

b) The inside containers must be overpacked in an open head DOT-specification metal shipping container (49 CFR 178 and 179) of no more than 416 liter (110 gallon) capacity and surrounded by, at a minimum, a sufficient quantity of absorbent material to completely absorb all of the liquid contents of the inside containers. The metal outer container must be full after packing with inside containers and absorbent material.

c) In accordance with Section 724.117(b), the absorbent material used must not be capable of reacting dangerously with, being decomposed by or being ignited by the contents of the inside containers.

d) Incompatible waste, as defined in 35 Ill. Adm. Code 720.110, must not be placed in the same outside container.

e) Reactive wastes, other than cyanide- or sulfide-bearing waste as defined in 35 Ill. Adm. Code 721.123(a)(5), must be treated or rendered non-reactive prior to packaging in accordance with ~~paragraph~~subsections (a) through (d). Cyanide- and sulfide-bearing reacitve waste may be packed in accordance with ~~paragraph~~subsections (a) through (d) without first being treated or rendered non-reactive.

f) Such disposal is in compliance with 35 Ill. Adm. Code 728. Persons who incinerate lab packs according to 35 Ill. Adm. Code 728.142(c)(1) may use fiber drums in place of metal outer containers. Such fiber drums must meet the DOT specifications in 49 CFR 173.12 and be overpacked according to the requirements of subsection

(b).

g) Pursuant to 35 Ill. Adm. Code 729.312, the use of labpacks for disposal of liquid wastes or wastes containing free liquids allowed under this Section is restricted to labwaste and non-periodic waste, as those terms are defined in that Part.

(Source: Amended at 15 Ill. Reg. , effective

SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS

Section 724.930 Applicability

a) This Subpart applies to owners and operators of facilities that treat, store or dispose of hazardous wastes (except as provided in Section 724.101).

b) Except for Sections 724.934(d) and 724.935(e), this Subpart applies to process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations that manage hazardous wastes with organic concentrations of at least 10 ppmw (parts per million by weight), if these operations are conducted in:

1) Units that are subject to the permitting requirements of 35 Ill. Adm. Code 703; or

2) Hazardous waste recycling units that are located on hazardous waste management facilities otherwise subject to the permitting requirements of 35 Ill. Adm. Code 703.

c) If the owner or operator of process vents subject to the requirements of Sections 724.932 through 724.936 has received a RCRA permit prior to December 21, 1990, the requirements of Sections 724.932 through 724.936 must be incorporated when the permit is reissued under 35 Ill. Adm. Code 705.201 or reviewed under 35 Ill. Adm. Code 702.161.

BOARD NOTE: The requirements of Sections 724.932 through 724.936 apply to process vents on hazardous waste recycling units previously exempt under 35 Ill. Adm. Code 721.106(c)(1). Other exemptions under 35 Ill. Adm. Code 721.104, 722.134 and 724.101(g) are not affected by these requirements.

(Source: Added at 15 Ill. Reg. , effective

Section 724.931 Definitions

As used in this Subpart, all terms not defined in the Subpart have the meaning given them in the Resource Conservation and Recovery Act and 35 Ill. Adm. Code 720 through 726.

Air stripping operation is a desorption operation employed to transfer one or more volatile components from a liquid mixture into a gas (air) either with or without the application of heat to the liquid. Packed towers, spray towers and bubble-cap, sieve, or valve-type plate towers are among the process configurations used for contacting the air and a liquid.

Bottoms receiver means a container or tank used to receive and collect the heavier bottoms fractions of the distillation feed stream that remain in the liquid phase.

BTU means British thermal unit.

Closed-vent system means a system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device.

Condenser means a heat-transfer device that reduces a thermodynamic fluid from its vapor phase to its liquid phase.

Connector means flanged, screwed, welded or other joined fittings used to connect two pipelines or a pipeline and a piece of equipment. For the purposes of reporting and recordkeeping, connector means flanged fittings that are not covered by insulation or other materials that prevent location of the fittings.

Continuous recorder means a data-recording device recording an instantaneous data value at least once every 15 minutes.

Control device means an enclosed combustion device, vapor recovery system, or flare. Any device the primary function of which is the recovery or capture of solvents or other organics for use, reuse, or sale (e.g., a primary condenser on a solvent recovery unit) is not a control device.

Control device shutdown means the cessation of

operation of a control device for any purpose.

Distillate receiver means a container or tank used to receive and collect liquid material (condensed) from the overhead condenser of a distillation unit and from which the condensed liquid is pumped to larger storage tanks or other process units.

Distillation operation means an operation, either batch or continuous, separating one or more feed stream(s) into two or more exit streams, each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and vapor phase as they approach equilibrium within the distillation unit.

Double block and bleed system means two block valves connected in series with a bleed valve or line that can vent the line between the two block valves.

Equipment means each valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, or flange, and any control devices or systems required by this Subpart.

Flame zone means the portion of the combustion chamber in a boiler occupied by the flame envelope.

Flow indicator means a device that indicates whether gas flow is present in a vent stream.

First attempt at repair means to take rapid action for the purpose of stopping or reducing leakage of organic material to the atmosphere using best practices.

Fractionation operation means a distillation operation or method used to separate a mixture of several volatile components of different boiling points in successive stages, each stage removing from the mixture some proportion of one of the components.

ft means foot.

h means hour.

Hazardous waste management unit shutdown means a work practice or operational procedure that stops operation of a hazardous waste management unit or part of a hazardous waste management unit. An unscheduled work practice or operational procedure that stops operation of a hazardous waste management unit or part of a

hazardous waste management unit for less than 24 hours is not a hazardous waste management unit shutdown. The use of spare equipment and technically feasible bypassing of equipment without stopping operation are not hazardous waste management unit shutdowns.

Hot well means a container for collecting condensate as in a steam condenser serving a vacuum-jet or steam-jet ejector.

In gas-vapor service means that the piece of equipment contains or contacts a hazardous waste stream that is in the gaseous state at operating conditions.

In heavy liquid service means that the piece of equipment is not in gas-vapor service or in light liquid service.

In light liquid service means that the piece of equipment contains or contacts a waste stream where the vapor pressure of one or more of the components in the stream is greater than 0.3 kilopascals (kPa) at 20 C, the total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 C is equal to or greater than 20 percent by weight, and the fluid is a liquid at operating conditions.

In situ sampling systems means nonextractive samplers on in-line samplers.

In vacuum service means that equipment is operating at an internal pressure that is at least 5 kPa below ambient pressure.

Kg means kilogram.

kPa means kilopascals.

lb means pound.

m means meter.

Mg means Megagrams, or metric tonnes.

MJ means Megajoules, or ten to the sixth Joules.

MW means Megawatts.

Malfunction means any sudden failure of a control device or a hazardous waste management unit or failure of a hazardous waste management unit to operate in a normal or usual manner, so that organic emissions are

increased.

Open-ended valve or line means any valve, except pressure relief valves, having one side of the valve seat in contact with process fluid and one side open to the atmosphere, either directly or through open piping.

ppmv means parts per million by volume.

ppmw meant parts per million by weight.

Pressure release means the emission of materials resulting from the system pressure being greater than the set pressure of the pressure relief device.

Process heater means a device that transfers heat liberated by burning fuel to fluids contained in tubes, including all fluids except water that are heated to produce steam.

Process vent means any open-ended pipe or stack that is vented to the atmosphere either directly, through a vacuum-producing system, or through a tank (e.g., distillate receiver, condenser, bottoms receiver, surge control tank, separator tank, or hot well) associated with hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations.

Repaired means that equipment is adjusted, or otherwise altered, to eliminate a leak.

s means second.

scm means standard cubic meter.

scft meant standard cubic foot.

Sensor means a device that measures a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.

Separator tank means a device used for separation of two immiscible liquids.

Solvent extraction operation means an operation or method of separation in which a solid or solution is contracted with a liquid solvent (the two being mutually insoluble) to preferentially dissolve and transfer one or more components into the solvent.

Startup means the setting in operation of a hazardous

waste management unit or control device for any purpose.

Steam stripping operation means a distillation operation in which vaporization of the volatile constituents of a liquid mixture takes place by the introduction of steam directly in to the charge.

Surge control tank means a large-sized pipe or storage reservoir sufficient to contain the surging liquid discharge of the process tank to which it is connected.

Thin-film evaporation operation means a distillation operation that employs a heating surface consisting of a large diameter tube that may be either straight or tapered, horizontal or vertical. Liquid is spread on the tube wall by a rotating assembly of blades that maintain a close clearance from the wall or actually ride on the film of liquid on the wall.

Vapor incinerator means any enclosed combustion device that is used for destroying organic compounds and does not extract energy in the form of steam or process heat.

Vented means discharged through an opening, typically an open-ended pipe or stack, allowing the passage of a stream of liquids, gases, or fumes into the atmosphere. The passage of liquids, gases, or fumes is caused by mechanical means such as compressors or vacuum-producing systems or by process-related means such as evaporation produced by heating and not caused by tank loading and unloading (working losses) or by natural means such as diurnal temperature changes.

yr means year.

(Source: Added at 15 Ill. Reg. , effective

Section 724.932 Standards: Process Vents

a) The owner or operator of a facility with process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations managing hazardous wastes with organic concentrations of at least 10 ppmw shall either:

1) Reduce total organic emissions from all affected process vents at the facility below 1.4 kg/h (3 lb/h) and 2.8 Mg/yr (3.1 tons/yr); or

2) Reduce, by use of a control device, total organic emissions from all affected process vents at the facility by 95 weight percent.

b) If the owner or operator installs a closed-vent system and control device to comply with the provisions of subsection (a), the closed-vent system and control device must meet the requirements of Section 724.933.

c) Determinations of vent emissions and emission reductions or total organic compound concentrations achieved by add-on control devices must be either based on engineering calculations or performance tests. If performance tests are used to determine vent emissions, emission reductions, or total organic compound concentrations achieved by add-on control devices, the performance tests must conform with the requirements of Section 724.934(c).

d) When an owner or operator and the Agency do not agree on determinations of vent emissions or emission reductions or total organic compound concentrations achieved by add-on control devices based on engineering calculations, the procedures in Section 724.934(c) must be used to resolve the disagreement.

Source: Added at 15 Ill. Reg. , effective

Section 724.933 Standards: Closed-vent Systems and Control Devices

a) Compliance Required.

1) Owners or operators of closed-vent systems and control devices used to comply with provisions of this Part shall comply with the provisions of this Section.

2) The owner or operator of an existing facility who cannot install a closed-vent system and control device to comply with the provisions of this Subpart on the effective date that the facility becomes subject to the provisions of this Subpart shall prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls must be installed as soon as possible, but the implementation schedule may allow up to 18 months after the effective date that the facility becomes subject to this Subpart

for installation and startup. All units that begin operation after December 21, 1990, must comply with the rules immediately (i.e., must have control devices installed and operating on startup of the affected unit); the 2-year implementation schedule does not apply to these units.

b) A control device involving vapor recovery (e.g., a condenser or adsorber) must be designed and operated to recover the organic vapors vented to it with an efficiency of 95 weight percent or greater unless the total organic emission limits of Section 724.932(a)(1) for all affected process vents is attained at an efficiency less than 95 weight percent.

c) An enclosed combustion device (e.g., a vapor incinerator, boiler or process heater) must be designed and operated to reduce the organic emissions vented to it by 95 weight percent or greater; to achieve a total organic compound concentration of 20 ppmv, expressed as the sum of the actual compounds, not carbon equivalents, on a dry basis corrected to 3 percent oxygen; or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 C. If a boiler or process heater is used as the control device, then the vent stream must be introduced into the flame zone of the boiler or process heater.

d) Flares

1) A flare must be designed for and operated with no visible emissions as determined by the methods specified in subsection (e)(1) except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

2) A flare must be operated with a flame present at all times, as determined by the methods specified in subsection (f)(2)(c).

3) A flare must be used only if the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or if the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted must be determined by the methods specified in subsection (e)(2).

4) Exit Velocity.

A) A steam-assisted or nonassisted flare must be designed for an operated with an exit velocity, as determined by the methods specified in subsection (e)(3), less than 18.3 m/s (60 ft/s), except as provided in subsections (d)(4)(B) and (C).

B) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3), equal to or greater than 18.3 m/s (60 ft/s) but less than 122 m/s (400 ft/s) is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1000 Btu/scf).

C) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3), less than the velocity, V as determined by the method specified in subsection (e)(4) and less than 122 m/s (400 ft/s) is allowed.

5) An air-assisted flare must be designed and operated with an exit velocity less than the velocity, V as determined by the method specified in subsection (e)(5).

6) A flare used to comply with this Section must be steam-assisted, air-assisted or nonassisted.

e) 1) Reference Method 22 in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111, must be used to determine the compliance of a flare with the visible emission provisions of this Subpart. The observation period is 2 hours and must be used according to Method 22.

2) The net heating value of the gas being combusted in a flare must be calculated using the following equation:

$H = K * SUM(Ci * Hi)$

Where:

H is the net heating value of the sample in MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 C and 760 mm Hg, but the standard temperature for determining the volume correrssponding to 1

mole is 20 C.

K = 1.74 E -7 (1/ppm)(g mol/scm)(MJ/kcal) where standard temperature for (g mol/scm) 20 C.

SUM(Xi) means the sum of the values of X for each component i, from i=1 to n.

Ci is the concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 in 40 CFR 60, and for carbon monoxide, by ASTM D1946, incorporated by reference in 35 Ill. Adm. Code 720.111.

Hi is the net heat of combustion of sample component i, kcal/gmol at 25 C and 760 mm Hg. The heats of combustion must be determined using ASTM D2382, incorporated by reference in 35 Ill. Adm. Code 720.111, if published values are not available or cannot be calculated.

3) The actual exit velocity of a flare must be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

4) The maximum allowed velocity in m/s, V for a flare complying with subsection (d)(4)(C) must be determined by the following equation:

LOG(V) = (H + 28.8) / 31.7

Where:

LOG means logarithm to the base 10

H is the net heating value as determined in subsection (e)(2).

5) The maximum allowed velocity in m/s, V for an air-assisted flare must be determined by the following equation:

V = 8.706 + 0.7084H

Where:

H is the net heating value as determined in subsection (e)(2)

f) The owner or operator shall monitor and inspect each control device required to comply with this Section to ensure proper operation and maintenance of the control device by implementing the following requirements:

1) Install, calibrate, maintain and operate according to the manufacturer's specifications a flow indicator that provides a record of stream flow from each affected process vent to the control device at least once every hour. The flow indicator sensor must be installed in the vent stream at the nearest feasible point to the control device inlet but before the point at which the vent streams are combined.

2) Install, calibrate, maintain and operate according to the manufacturer's specifications a device to continuously monitor control device operation as specified below:

A) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device must have accuracy of ± 1 percent of the temperature being monitored in C or ± C, whichever is greater. the temperature sensor must be installed at a location in the combustion chamber downstream of the combustion zone.

B) For a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature at two locations and have an accuracy of ± 1 percent of the temperature being monitored in C or ± 0.5 C, whichever is greater. One temperature sensor must be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor must be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.

C) For a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.

D) For a boiler or process heater having a design heat input capacity less than 44 MW, a temperature monitoring device equipped with a continuous recorder. The device must have an accuracy of ± 1 percent of the temperature being monitored in C or ± 0.5 C, whichever is greater. The temperature sensor must be installed at a location in the furnace downstream of the combustion zone.

E) For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW, a monitoring device equipped with a continuous recorder to measure a parameter(s) that indicates good combustion operating practices are being used.

F) For a condenser, either:

i) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser; or

ii) A temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature at two locations and have an accuracy of ± 1 percent of the temperature being monitored in C or ± 0.5 C, whichever is greater. One temperature sensor must be installed at a location in the exhaust vent stream from the condenser, and a second temperature sensor must be installed at a location in the coolant fluid exiting the condenser.

G) For a carbon adsorption system that regenerates the carbon bed directly in the control device such as a fixed-bed carbon adsorber, either:

i) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed, or

ii) A monitoring device equipped with a

continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle.

3) Inspect the readings from each monitoring device required by subsection (f)(1) and (2) at least once each operating day to check control device operation and, if necessary, immediately implement the corrective measures necessary to ensure the control device operates in compliance with the requirements of this Section.

g) An owner or operator using a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is no longer than the carbon service life established as a requirement of Section 724.935(b)(4)(C)(vi).

h) An owner or operator using a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon on a regular basis by using one of the following procedures:

1) Monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system on a regular schedule, and replace the existing carbon with fresh carbon immediately when carbon breakthrough is indicated. The monitoring frequency must be daily or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity established as a requirement of Section 724.935(b)(4)(C)(vii), whichever is longer.

2) Replace the existing carbon with fresh carbon at a regular, predetermined time interval that is less than the design carbon replacement interval established as a requirement of Section 724.935(b)(4)(C(vii).

i) An alternative operational or process parameter may be monitored if the operator demonstrates that the parameter will ensure that the control device is operated in conformance with these standards and the control device's design specifications.

j) An owner or operator of an affected facility seeking to comply with the provisions of this Part by using a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser or carbon adsorption system is required to develop documentation including sufficient information to describe the control device operation and identify the process parameter or parameters that indicate proper operation and maintenance of the control device.

k) Closed vent systems.

1) Closed-vent systems must be designed for and operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background and by visual inspections, as determined by the methods specified at Section 724.934(b).

2) Closed-vent systems must be monitored to determine compliance with this Section during the initial leak detection monitoring, which must be conducted by the date that the facility becomes subject to the provisions of this Section annually, and at other times as specified in the RCRA permit.

3) Detectable emissions, as indicated by an instrument reading greater than 500 ppm and visual inspections, must be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected.

4) A first attempt at repair must be made no later than 5 calendar days after the emission is detected..

l) Closed-vent systems and control devices used to comply with provisions of this Subpart must be operated at all times when emissions may be vented to them.

Source: Added at 15 Ill. Reg. , effective

Section 724.934 Test methods and procedures

a) Each owner or operator subject to the provisions of this Subpart shall comply with the test methods and procedures requirements provided in this Section

b) When a closed-vent system is tested for compliance with no detectable emissions, as required in Section

724.933(k), the test must comply with the following requirements:

1) Monitoring must comply with Reference Method 21 in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111.

2) The detection instrument must meet the performance criteria of Reference Method 21.

3) The instrument must be calibrated before use on each day of its use by the procedures specified in Reference Method 21.

4) Calibration gases must be:

   A) Zero air (less than 10 ppm of hydrocarbon in air).

   B) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

5) The background level must be determined as set forth in Reference Method 21.

6) The instrument probe must be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

7) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

c) Performance tests to determine compliance with Section 724.932(a) and with the total organic compound concentration limit of Section 724.933(c) must comply with the following:

1) Performance tests to determine total organic compound concentrations and mass flow rates entering and exiting control devices must be conducted and data reduced in accordance with the following reference methods and calculation procedures:

   A) Method 2 in 40 CFR 60 for velocity and volumetric flow rate.

   B) Method 18 in 40 CFR 60 for organic content.

C) Each performance test must consist of three separate runs, each run conducted for at least 1 hour under the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. For the purpose of determining total organic compound concentrations and mass flow rates, the average of results of all runs applies. The average must be computed on a time-weighed basis.

D) Total organic mass flow rates must be determined by the following equation:

F = K * Q * SUM(Ci * MWi)

Where:

F is the total organic mass flow rate, kg/h.

K = 4.16 E -8, conversion factor for molar volume, kg-mol/cubic m, at 293 K and 760 mm Hg.

Q = volumetric flow rate of gases entering or exiting control device, dscm/h, as determined by Method 2 in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111.

SUM(Xi) means the sum of the values of X for each component i, from i=1 to n.

n = number of organic compounds in the vent gas.

Ci is the organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Method 18 in 40 CFR 60.

MWi is the molecular weight of organic compound i in the vent gas, kg/kg-mol.

E) The annual total organic emission rate must be determined by the following equation:

A = F * HOURS

Where:

A is total organic emission rate, kg/y.

F is the total organic mass flow rate, kg/h, as calculated in subsection (c)(1)(D).

HOURS is the total annual hours of operation for the affected unit.

F) Total organic emissions from all affected process vents at the facility must be determined by summing the hourly total organic mass emissions rates (F as determined in subsection (c)(1)(D)) and by summing the annual total organic mass emission rates (A as determined in subsection (c)(1)(E)) for all affected process vents at the facility.

2) The owner or operator shall record such process information as is necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown and malfunction do not constitute representative conditions for the purpose of a performance test.

3) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

A) Sampling ports adequate for the test methods specified in subsection (c)(1).

B) Safe sampling platform(s).

C) Safe access to sampling platform(s).

D) Utilities for sampling and testing equipment.

4) For the purpose of making compliance determinations, the time-weighted average of the results of the three runs must apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions or other circumstances beyond the owner or operator's control, compliance may, upon the Agency's approval, be determined using the average of the results of the two other runs.

d) To show that a process vent associated with a hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation is not subject to the requirements of this Subpart, the owner or operator shall make an initial determination that the time-weighted, annual average total organic concentration of the waste managed by the waste management unit is less than 10 ppmw using one of the following two methods:

1) Direct measurement of the organic concentration of the waste using the following procedures:

A) The owner or operator shall take a minimum of four grab samples of waste for each wastestream managed in the affected unit under process conditions expected to cause the maximum waste organic concentration.

B) For waste generated onsite, the grab samples must be collected at a point before the waste is exposed to the atmosphere such as in an enclosed pipe or other closed system that is used to transfer the waste after generation to the first affected distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation. For waste generated offsite, the grab samples must be collected at the inlet to the first waste management unit that receives the waste provided the waste has been transferred to the facility in a closed system such as a tank truck and the waste is not diluted or mixed with other waste.

C) Each sample must be analyzed and the total organic concentration of the sample must be computed using Method 9060 or 8240 of SW-846 (incorporated by reference under 35 Ill. Adm. Code 720.111.

D) The arithmetic mean of the results of the analyses of the four samples apply for each wastestream managed in the unit in determining the time-weighted, annual average total organic concentration of the waste. The time-weighted average is to be calculated using the annual quantity of each waste stream processed and the mean organic concentration of each wastestream managed in the unit.

2) Using knowledge of the waste to determine that its total organic concentration is less that 10 ppmw. Documentation of the waste determination is required. Examples of documentation that must be used to support a determination under this subsection include:

A) Production process information documenting that no organic compounds are used.

B) Information that the waste is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to generate a wastestream having a total organic content less than 10 ppmw, or

C) Prior speciation analysis results on the same wastestream where it is also documented that no process changes have occurred since that analysis that could affect the waste total organic concentration.

e) The determination that distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations which manage hazardous wastes with time-weighted, annual average total organic concentrations less than 10 ppmw must be made as follows:

1) By the effective date that the facility becomes subject to the provisions of this Subpart or by the date when the waste is first managed in a waste management unit, whichever is later; and

2) For continuously generated waste, annually; or

3) Whenever there is a change in the waste being managed or a change in the process that generates or treats the waste.

f) When an owner or operator and the Agency do not agree on whether a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation manages a hazardous waste with organic concentrations of at least 10 ppmw based on knowledge of the waste, the procedures in Method 8240 in SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, must be used to resolve the dispute.

(Source: Added at 15 Ill. Reg. effective

Section 724.935 Recordkeeping requirements

a) Compliance Required.

1) Each owner or operator subject to the provisions of this Subpart shall comply with the recordkeeping requirements of this Section.

2) An owner or operator of more than one hazardous waste management unit subject to the provisions of this Subpart may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.

b) Owners and operators shall record the following information in the facility operating record:

1) For facilities that comply with the provisions of Section 724.933(a)(2), an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The schedule must also include a rationale of why the installation cannot be completed at an earlier date. The implementation schedule must be in the facility operating record by the effective date that the facility becomes subject to the provisions of this Subpart.

2) Up-to-date documentation of compliance with the process vent standards in Section 724.932, including:

A) Information and data identifying all affected process vents, annual throughput and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility (i.e., the total emissions for all affected vents at the facility), and the approximate location within the facility of each affected unit (e.g., identify the hazardous waste management units on a facility plot plan).

B) Information and data supporting determination of vent emissions and emission reductions achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance,

determinations of vent emissions and emission reductions must be made using operating parameter values (e.g., temperatures, flow rates, or vent stream organic compounds and concentrations) that represent the conditions that result in maximum organic emissions, such as when the waste management unit is operating at the highest load or capacity level reasonably expected to occur. If the owner or operator takes any action (e.g., managing a waste of different composition or increasing operating hours of affected waste management units) that would result in an increase in total organic emissions from affected process vents at the facility, then a new determination is required.

3) Where an owner or operator chooses to use test data to determine the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan. The test plan must include:

A) A description of how it is determined that the planned test is going to be conducted when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. This must include the estimated or design flow rate and organic content of each vent stream and define the acceptable operating ranges of key process and control device parameters during the test program.

B) A detailed engineering description of the closed-vent system and control device including:

i) Manufacturer's name and model number of control device.

ii) Type of control device.

iii) Dimensions of the control device.

iv) Capacity.

v) Construction materials.

C) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the

equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.

4) Documentation of compliance with Section 724.933 must include the following information:

A) A list of all information references and sources used in preparing the documentation.

B) Records including the dates of each compliance test required by Section 724.933(k).

C) If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of APTI Course 415 (incorporated by reference in 35 Ill. Adm. Code 720.111) or other engineering texts, approved by the Agency, that present basic control device design information. Documentation provided by the control device manufacturer or vendor that describes the control device design in accordance with subsections (b)(4)(C)(i) through (vii) may be used to comply with this requirement. The design analysis must address the vent stream characteristics and control device operation parameters as specified below.

i) For a thermal vapor incinerator, the design analysis must consider the vent stream composition, constituent concentrations and flow rate. The design analysis must also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.

ii) For a catalytic vapor incinerator, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also establish the design minimum and average temperatures across the catalyst bed inlet and outlet.

iii) For a boiler or process heater, the design analysis must consider the vent

stream composition, constituent concentrations and flow rate. The design analysis must also establish the design minimum and average flame zone temperatures, combustion zone residence time and description of method and location where the vent stream is introduced into the combustion zone.

iv) For a flare, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also consider the requirements specified in Section 724.933(d).

v) For a condenser, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis must also establish the design outlet organic compound concentration level, design average temperature of the condenser exhaust vent stream and design average temperatures of the coolant fluid at the condenser inlet and outlet.

vi) For a carbon adsorption system such as a fixed-bed adsorber that regenerates the carbon bed directly onsite in the control device, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis must also establish the design exhaust vent stream organic compound concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling/drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time and design service life of carbon.

vii) For a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the

control device, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis must also establish the design outlet organic concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

D) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

E) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 percent or greater unless the total organic concentration limit of Section 724.932(a) is achieved at an efficiency less than 95 weight percent or the total organic emission limits of Section 724.932(a) for affected process vents at the facility are attained by a control device involving vapor recovery at an efficiency less than 95 weight percent. A statement provided by the control device manufacturer or vendor certifying that the control equipment meets the design specifications may be used to comply with this requirement.

F) If performance tests are used to demonstrate compliance, all test results.

c) Design documentation and monitoring operating and inspection information for each closed-vent system and control device required to comply with the provisions of this Part must be recorded and kept up-to-date in the facility operating record. The information must include:

1) Description and date of each modification that is made to the closed-vent system or control device design.

2) Identification of operating parameter, description of monitoring device, and diagram of monitoring sensor location or locations used to comply with Section 724.933(f)(1) and (2).

3) Monitoring, operating and inspection information required by Section 724.933(f) through (k).

4) Date, time and duration of each period that occurs while the control device is operating when any monitored parameter exceeds the value established in the control device design analysis as specified below:

A) For a thermal vapor incinerator designed to operate with a minimum residence time of 0.50 second at a minimum temperature of 760 C, any period when the combustion temperature is below 760 C.

B) For a thermal vapor incinerator designed to operate with an organic emission reduction efficiency of 95 weight percent or greater, any period when the combustion zone temperature is more than 28 C below the design average combustion zone temperature established as a requirement of subsection (b)(4)(C)(i).

C) For a catalytic vapor incinerator, any period when:

i) Temperature of the vent stream at the catalyst bed inlet is more than 28 C below the average temperature of the inlet vent stream established as a requirement of subsection (b)(4)(C)(ii); or

ii) Temperature difference across the catalyst bed is less than 80 percent of the design average temperature difference established as a requirement of subsection (b)(4)(C)(ii).

D) For a boiler or process heater, any period when:

i) Flame zone temperature is more than 28 C below the design average flame zone temperature established as a requirement

of subsection (b)(4)(C)(iii); or

ii) Position changes where the vent stream is introduced to the combustion zone from the location established as a requirement of subsection (b)(4)(C)(iii).

E) For a flare, period when the pilot flame is not ignited.

F) For a condenser that complies with Section 724.933(f)(2)(F)(i), any period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the condenser are more than 20 percent greater than the design outlet organic compound concentration level established as a requirement of subsection (b)(4)(C)(v).

G) For a condenser that complies with Section 724.933(f)(2)(F)(ii), any period when:

i) Temperature of the exhaust vent stream from the condenser is more than 6 C above the design average exhaust vent stream temperature established as a requirement of subsection (b)(4)(C)(v).

ii) Temperature of the coolant fluid exiting the condenser is more than 6 C above the design average coolant fluid temperature at the condenser outlet established as a requirement of subsection (b)(4)(C)(v).

H) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and complies with Section 724.933(f)(2()G)(i), any period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the carbon bed are more than 20 percent greater than the design exhaust vent stream organic compound concentration level established as a requirement of subsection (b)(4)(C)(vi).

I) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control

device and complies with Section 724.933(f)(2)(G)(ii), any period when the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time established as a requirement of subsection (b)(4)(C)(vi).

5) Explanation for each period recorded under subsection (c)(4) of the cause for control device operating parameter exceeding the design value and the measures implemented to correct the control device operation.

6) For a carbon adsorption system operated subject to requirements specified in Section 724.933(g) or (h)(2), any date when existing carbon in the control device is replaced with fresh carbon.

7) For a carbon adsorption system operated subject to requirements specified in Section 724.933(h)(1), a log that records:

A) Date and time when control device is monitored for carbon breakthrough and the monitoring device reading.

B) Date when existing carbon in the control device is replaced with fresh carbon.

8) Date of each control device startup and shutdown.

d) Records of the monitoring, operating and inspection information required by subsections (c)(3) through (8) need be kept only 3 years.

e) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser or carbon adsorption system, the Agency shall specify the appropriate recordkeeping requirements.

f) Up-to-date information and data used to determine whether or not a process vent is subject to the requirements in Section 724.932, including supporting documentation as required by Section 724.934(d)(2), when application of the knowledge of the nature of the hazardous wastestream or the process by which it was produced is used, must be recorded in a log that is kept in the facility operating record.

Source: Added at 15 Ill. Reg. , effective

Section 724.936 Reporting Requirements

a) A semiannual report must be submitted by owners and operators subject to the requirements of this Subpart to the Agency by dates specified in the RCRA permit. The report must include the following information:

1) The USEPA identification number (35 Ill. Adm. Code 722.112), name, and address of the facility.

2) For each month during the semiannual reporting period:

a) Dates when the control device:

i) Exceeded or operated outside of the design specifications as defined in Section 724.935(c)(4) and

ii) Such exceedances were not corrected within 24 hours, or that a flare operated with visible emissions as defined by Method 22 monitoring

B) The duration and cause of each exceedance or visible emissions, and

C) Any corrective measures taken.

b) If during the semiannual reporting period, the control device does not exceed or operate outside of the design specifications as defined in Section 724.935(c)(4) for more than 24 hours or a flare does not operate with visible emissions as defined in Section 724.933(d), a report to the Agency is not required.

Source: Added at 15 Ill. Reg. , effective

SUBPART BB: AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

Section 724.950 Applicability

a) The regulations in this Subpart apply to owners and operators of facilities that treat, store, or dispose of hazardous wastes (except as provided in Section 724.101).

b) Except as provided in Section 724.964(k), this Subpart applies to equipment that contains or contacts

hazardous wastes with organic concentrations of at least 10 percent by weight that are managed in:

1) Units that are subject to the RCRA permitting requirements of 35 Ill. Adm. Code 703, or

2) Hazardous waste recycling units that are located on hazardous waste management facilities otherwise subject to the permitting requirements of 35 Ill. Adm. Code 703.

c) If the owner or operator of equipment subject to the requirements of Sections 724.952 through 724.965 has received a RCRA permit prior to December 21, 1990, the requirements of Sections 724.952 through 724.965 must be incorporated when the permit is reissued under 35 Ill. Adm. Code 705.201 or reviewed under 35 Ill. Adm. Code 702.161.

d) Each piece of equipment to which this Subpart applies must be marked in such a manner that it can be distinguished readily from other pieces of equipment.

e) Equipment that is in vacuum service is excluded from the requirements of Sections 724.952 to 724.960, if it is identified as required in Section 724.964(g)(5).

BOARD NOTE: The requirements of Sections 724.952 through 724.965 apply to equipment associated with hazardous waste recycling units previously exempt under 35 Ill. Adm. Code 721.106(c)(1). Other exemptions under 35 Ill. Adm. Code 721.104, 722.134 and 724.101(g) are not affected by these requirements.

Source: Added at 15 Ill. Reg. , effective

Section 724.951 Definitions

As used in this Subpart, all terms have the meaning given them in Section 724.931, the Resource Conservation and Recovery Act and 35 Ill. Adm. Code 720 through 726.

Source: Added at 15 Ill. Reg. , effective

Section 724.952 Standards: Pumps in Light Liquid Service

a) Monitoring

1) Each pump in light liquid service must be monitored monthly to detect leaks by the methods

specified in Section 724.963(b), except as provided in subsections (d), (e) and (f).

2) Each pump in light liquid service must be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

b) Leaks

1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

2) If there are indications of liquids dripping from the pump seal, a leak is detected.

c) Repairs

1) When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 724.959.

2) A first attempt at repair (e.g., tightening the packing gland) must be made no later than 5 calendar days after each leak is detected.

d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of subsection (a), provided the following requirements are met:

1) Each dual mechanical seal system must be:

A) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressures; or

B) Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section 724.960; or

C) Equipped with a system that purges the barrier fluid into a hazardous wastestream with no detectable emissions to the atmosphere.

2) The barrier fluid system must not be a hazardous waste with organic concentrations 10 percent or greater by weight.

3) Each barrier fluid system must be equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

4) Each pump must be checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

5) Alarms

A) Each sensor as described in subsection (d)(3) must be checked daily or be equipped with an audible alarm that must be checked monthly to ensure that it is functioning properly.

B) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

6) Leaks

A) If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in subsection (d)(5)(B), a leak is detected.

B) When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 724.959.

C) A first attempt at repair (e.g., relapping the seal) must be made no later than 5 calendar days after each leak is detected.

e) Any pump that is designated, as described in Section 724.964(g)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of subsections (a), (c) and (d), if the pump meets the following requirements:

1) Must have no externally actuated shaft penetrating the pump housing.

2) Must operate with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the

methods specified in Section 724.963(c).

3) Must be tested for compliance with subsection (e)(2) initially upon designation, annually and at other times as specified in the RCRA permit.

f) If any pump is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of Section 724.960, it is exempt from the requirements of subsections (a) through (e).

Source: Added at 15 Ill. Reg. , effective

Section 724.953 Standards: Compressors

a) Each compressor must be equipped with a seal system that includes a barrier fluid system and that prevents leakage of total organic emissions to the atmosphere, except as provided in subsections (h) and (i).

b) Each compressor seal system as required in subsection (a) must be:

1) Operated with the barrier fluid at a pressure that is at all times greater than the compressor stuffing box pressure; or

2) Equipped with a barrier fluid system that is connected by a closed-vent system to a control device that complies with the requirements of Section 724.960; or

3) Equipped with a system that purges the barrier fluid into a hazardous wastestream with no detectable emissions to atmosphere.

c) The barrier fluid must not be a hazardous waste with organic concentrations 10 percent or greater by weight.

d) Each barrier fluid system as described in subsections (a) through (c) must be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

e) 1) Each sensor as required in subsection (d) must be checked daily or must be equipped with an audible alarm that must be checked monthly to ensure that it is functioning properly unless the compressor is located within the boundary of an unmanned plant site, in which case the sensor must be

checked daily.

2) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

f) If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined under subsection (e)(2), a leak is detected.

g) Repairs

1) When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 724.959.

2) A first attempt at repair (e.g., tightening the packing gland) must be made no later than 5 calendar days after each leak is detected.

h) A compressor is exempt from the requirements of subsections (a) and (b) if it is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal to a control device that complies with the requirements of Section 724.960, except as provided in subsection (i).

i) Any compressor that is designated, as described in Section 724.964(g)(2), for no detectable emission as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of subsections (a) through (h) if the compressor:

1) Is determined to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Section 724.963(c).

2) Is tested for compliance with subsection (i)(1) initially upon designation, annually and other times as specified in the RCRA permit.

Source: Added at 15 Ill. Reg. , effective

Section 724.954 Standards: Pressure Relief Devices in Gas-Vapor Service

a) Except during pressure releases, each pressure relief device in gas-vapor service must be operated with no

detectable emissions, as indicated by an instrument reading of less than 500 ppm above background as measured by the method specified in Section 724.963(c).

b) Actions following pressure release.

1) After each pressure release, the pressure relief device must be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in Section 724.959.

2) No later than 5 calendar days after the pressure release, the pressure relief device must be monitored to confirm the condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Section 724.963(c).

c) Any pressure relief device that is equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in Section 724.960 is exempt from the requirements of subsections (a) and (b).

Source: Added at 15 Ill. Reg. , effective

Section 724.955 Standards: Sampling Connecting Systems

a) Each sampling connection system must be equipped with a closed purge system or closed-vent system.

b) Each closed-purge system or closed-vent system as required in subsection (a) must:

1) Return the purged hazardous waste stream directly to the hazardous waste management process line with no detectable emissions to atmosphere; or

2) Collect and recycle the purged hazardous waste stream with no detectable emissions to atmosphere; or

3) Be designed and operated to capture and transport all the purged hazardous wastestream to a control device that complies with the requirements of Section 724.960.

c) In situ sampling systems are exempt from the requirements of subsections (a) and (b).

Source: Added at 15 Ill. Reg. , effective

Section 724.956 Standards: Open-ended Valves or Lines

a) Equipment.

1) Each open-ended valve or line must be equipped with a cap, blind flange, plug or a second valve.

2) The cap, blind flange, plug or second valve must seal the open end at all times except during operations requiring hazardous wastestream flow through the open-ended valve or line.

b) Each open-ended valve or line equipped with a second valve must be operated in a manner such that the valve on the hazardous wastestream end is closed before the second valve is closed.

c) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but must comply with subsection (a) at all other times.

Source: Added at 15 Ill. Reg. , effective

Section 724.957 Standards: Valves in Gas-vapor or Light Liquid Service

a) Each valve in gas-vapor or light liquid service must be monitored monthly to detect leaks by the methods specified in Section 724.963(b) and must comply with subsections (b) through (e), except as provided in subsections (f), (g) and (h), and in Section 724.961 and 724.962.

b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

c) Monitoring Frequency

1) Any valve for which a leak is not detected for two successive months must be monitored the first month of every succeeding quarter, beginning with the next quarter, until a leak is detected.

2) If a leak is detected, the valve must be monitored monthly until a leak is not detected for two successive months,

d) 1) When a leak is detected, it must be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in Section 724.959.

2) A first attempt at repair must be made no later than 5 calendar days after each leak is detected.

e) First attempts at repair include, but are not limited to the following best practices where practicable:

1) Tightening of bonnet bolts.

2) Replacement of bonnet bolts.

3) Tightening of packing gland nuts.

4) Injection of lubricant into lubricated packing.

f) Any valve that is designated, as described in Section 724.964(g)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of subsection (a) if the valve:

1) Has no external actuating mechanism in contact with the hazardous wastestream.

2) Is operated with emissions less than 500 ppm above background as determined by the method specified in Section 724.963(c).

3) Is tested for compliance with subsection (f)(2) initially upon designation, annually, and at other times as specified in the RCRA permit.

g) Any valve that is designated, as described in Section 724.964(h)(1), as an unsafe-to-monitor valve is exempt from the requirements of subsection (a), if:

1) The owner or operator of the valve determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with subsection (a).

2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-

monitor times.

h) Any valve that is designated, as described in Section 724.964(h)(2), as a difficult-to-monitor valve is exempt from the requirements of subsection (a), if:

1) The owner or operator of the valve determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface;

2) The hazardous waste management unit within which the valve is located was in operation before June 21, 1990; and

3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

Source: Added at 15 Ill. Reg. , effective

Section 724.958 Standards: Pumps, Valves, Pressure Relief Devices and Other Connectors

a) Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service and flanges and other connectors must be monitored within 5 days by the method specified in Section 724.963(b), if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method.

b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

c) Repairs

1) When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 724.959.

2) The first attempt at repair must be made no later than 5 calendar days after each leak is detected.

d) First attempts at repair include, but are not limited to, the best practices described under Section 724.957(e).

Source: Added at 15 Ill. Reg. , effective

Section 724.959 Standards: Delay of Repair

a) Delay of repair of equipment for which leaks have been detected is allowed if the repair is technically infeasible without a hazardous waste management unit shutdown. In such a case, repair of this equipment must occur before the end of the next hazardous waste management unit shutdown.

b) Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the hazardous waste management unit and that does not continue to contain or contact hazardous waste with organic concentrations at least 10 percent by weight.

c) Delay of repair for valves is allowed if:

1) The owner or operator determines that emissions of purged material resulting from immediate repair are greater than the emissions likely to result from delay of repair.

2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with Section 724.960.

d) Delay of repair for pumps is allowed if:

1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system.

2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

e) Delay of repair beyond a hazardous waste management unit shutdown is allowed for a valve if valve assembly replacement is necessary during the hazardous waste management unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next hazardous waste management unit shutdown is not allowed unless the next hazardous waste management unit shutdown occurs sooner than 6 months after the first hazardous waste management unit shutdown.

Source: Added at 15 Ill. Reg. , effective

Section 724.960 Standards: Closed-vent Systems and Control Devices

Owners or operators of closed-vent systems and control devices shall comply with the provisions of Section 724.933.

Source: Added at 15 Ill. Reg. , effective

Section 724.961 Alternative Percentage Standard for Valves

a) An owner or operator subject to the requirements of Section 724.957 may elect to have all valves within a hazardous waste management unit comply with an alternative standard which allows no greater than 2 percent of the valves to leak.

b) The following requirements must be met if an owner or operator decides to comply with the alternative standard of allowing 2 percent of valves to leak:

1) An owner or operator shall notify the Agency that the owner or operator has elected to comply with the requirements of this Section.

2) A performance test as specified in subsection (c) must be conducted initially upon designation, annually and other times specified in the RCRA permit.

3) If a valve leak is detected it must be repaired in accordance with Section 724.957(d) and (e).

c) Performance tests must be conducted in the following manner:

1) All valves subject to the requirements in Section 724.957 within the hazardous waste management unit must be monitored within 1 week by the methods specified in Section 724.963(b).

2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

3) The leak percentage must be determined by dividing the number of valves subject to the requirements in Section 724.957 for which leaks are detected by the total number of valves subject to the requirements in Section 724.957 within the hazardous waste management unit.

d) If an owner or operator decides to comply with this

Section no longer, the owner or operator shall notify the Agency in writing that the work practice standard described in Section 724.957(a) through (e) will be followed.

Source: Added at 15 Ill. Reg. , effective

Section 724.962 Skip Period Alternative for Valves

a) Election

1) An owner or operator subject to the requirements of Section 724.957 may elect for all valves within a hazardous waste management unit to comply with one of the alternative work practices specified in subsections (b)(2) and (3).

2) An owner or operator shall notify the Agency before implementing one of the alternative work practices.

b) Reduced Monitoring

1) An owner or operator shall comply with the requirements for valves, as described in Section 724.957, except as described in subsection (b)(2) and (3).

2) After two consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 2 percent, an owner or operator may begin to skip one of the quarterly leak detection periods for the valves subject to the requirements in Section 724.957.

3) After five consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 2 percent, an owner or operator may begin to skip three of the quarterly leak detection periods for the valves subject to the requirements in Section 724.957.

4) If the percentage of valves leaking is greater than 2 percent, the owner or operator shall monitor monthly in compliance with the requirements in Section 724.957, but may again elect to use this Section after meeting the requirements of Section 724.957(c)(1).

Source: Added at 15 Ill. Reg. , effective

Section 724.963 Test Methods and Procedures

a) Each owner or operator subject to the provisions of this Subpart shall comply with the test methods and procedures requirements provided in this Section.

b) Leak detection monitoring, as required in Sections 724.952 through 724.962, must comply with the following requirements:

1) Monitoring must comply with Reference Method 21 in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111.

2) The detection instrument must meet the performance criteria of Reference Method 21.

3) The instrument must be calibrated before use on each day of its use by the procedures specified in Reference Method 21.

4) Calibration gases must be:

A) Zero air (less than 10 ppm of hydrocarbon in air).

B) A mixture of methane or n-hexane and air at a concentration of approximately, but less than 10,000 ppm methane or n-hexane.

5) The instrument probe must be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

c) When equipment is tested for compliance with no detectable emissions, as required in Sections 724.952(e), 724.953(i), 724.954 and 724.957(f), the test must comply with the following requirements:

1) The requirements of subsections (b)(1) through (4) apply.

2) The background level must be determined as set forth in Reference Method 21.

3) The instrument probe must be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

4) This arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

d) In accordance with the waste analysis plan required by Section 724.113(b), an owner or operator of a facility shall determine, for each piece of equipment, whether the equipment contains or contacts a hazardous waste with organic concentration that equals or exceeds 10 percent by weight using the following:

1) Methods described in ASTM Methods D 2267, E 169, E 168, E 260 incorporated by reference in 35 Ill. Adm. Code 720.111;

2) Method 9060 or 8240 of SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111; or

3) Application of the knowledge of the nature of the hazardous wastestream or the process by which it was produced. Documentation of a waste determination by knowledge is required. Examples of documentation that must be used to support a determination under this provision include production process information documenting that no organic compounds are used, information that the waste is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to have a total organic content less than 10 percent, or prior speciation analysis results on the same wastestream where it is also documented that no process changes have occurred since that analysis that could affect the waste total organic concentration.

e) If an owner or operator determines that a piece of equipment contains or contacts a hazardous waste with organic concentrations at least 10 percent by weight, the determination can be revised only after following the procedures in subsection (d)(1) or (2).

f) When an owner or operator and the Agency do not agree on whether a piece of equipment contains or contacts a hazardous waste with organic concentrations at least 10 percent by weight, the procedures in subsection (d)(1) or (2) must be used to resolve the dispute.

g) Samples used in determining the percent organic content must be representative of the highest total organic content hazardous waste that is expected to be

contained in or contact the equipment.

h) To determine if pumps or valves are in light liquid service, the vapor pressures of constituents must either be obtained from standard reference texts or be determined by ASTM D-2879 incorporated by reference in 35 Ill. Adm. Code 720.111.

i) Performance tests to determine if a control device achieves 95 weight percent organic emission reduction must comply with the procedures of Section 724.934(c)(1) through (4).

Source: Added at 15 Ill. Reg. , effective

Section 724.964 Recordkeeping Requirements

a) Lumping Units

1) Each owner or operator subject to the provisions of this Subpart shall comply with the recordkeeping requirements of this Section.

2) An owner or operator of more than one hazardous waste management unit subject to the provisions of this Subpart may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.

b) Owners and operators shall record the following information in the facility operating record:

1) For each piece of equipment to which this Subpart applies:

A) Equipment identification number and hazardous waste management unit identification.

B) Approximate locations within the facility (e.g., identify the hazardous waste management unit on a facility plot plan).

C) Type of equipment (e.g., a pump or pipeline valve).

D) Percent-by-weight total organics in the hazardous wastestream at the equipment.

E) Hazardous waste state at the equipment (e.g.,

gas-vapor or liquid).

F) Method of compliance with the standard (e.g., "monthly leak detection and repair" or "equipped with dual mechanical seals").

2) for facilities than comply with the provisions of Section 724.933(a)(2), an implementation schedule as specified in that Section.

3) Where an owner or operator chooses to use test data to demonstrate the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan as specified in Section 724.935(b)(3).

4) Documentation of compliance with Section 724.960, including the detailed design documentation or performance test results specified in Section 724.935(b)(4).

c) When each leak is detected as specified in Sections 724.952, 724.953, 724.957 or 724.958, the following requirements apply:

1) A weatherproof and readily visible identification, marked with the equipment identification number, the date evidence of a potential leak was found in accordance with Section 724.958(a), and the date the leak was detected, must be attached to the leaking equipment.

2) The identification on equipment except on a valve, may be removed after it has been repaired.

3) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in Section 724.957(c) and no leak has been detected during those 2 months.

d) When each leak is detected as specified in Sections 724.952, 724.953, 724.957 or 724.958, the following information must be recorded in an inspection log and must be kept in the facility operating record:

1) The instrument and operator identification numbers and the equipment identification number.

2) The date evidence of a potential leak was found in accordance with Section 724.958(a).

3) The date the leak was detected and the dates of

each attempt to repair the leak.

4) Repair methods applied in each attempt to repair the leak.

5) "Above 10,000", if the maximum instrument reading measured by the methods specified in Section 724.963(b) after each repair attempt is equal to or greater than 10,000 ppm.

6) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

7) Documentation supporting the delay of repair of a valve in compliance with Section 724.959(c).

8) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a hazardous waste management unit shutdown.

9) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.

10) The date of successful repair of the leak.

e) Design documentation and monitoring, operating and inspection information for each closed-vent system and control device required to comply with the provisions of Section 724.960 must be recorded and kept up-to-date in the facility operating record as specified in Section 724.935(c)(1) and (2), and monitoring, operating and inspection information in Section 724.935(c)(3) through (8).

f) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, the Agency shall specify the appropriate recordkeeping requirements, indicating proper operation and maintenance of the control device, in the RCRA permit.

g) The following information pertaining to all equipment subject to the requirements in Sections 724.952 through 724.960 must be recorded in a log that is kept in the facility operating record:

1) A list of identification numbers for equipment (except welded fittings) subject to the requirements of this Subpart.

2) List of Equipment

A) A list of identification numbers for equipment that the owner or operator elects to designate for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, under the provisions of Sections 724.952(e), 724.953(i) and 724.957(f).

B) The designation of this equipment as subject to the requirements of Sections 724.952(e), 724.953(i) or 724.957(f) must be signed by the owner or operator.

3) A list of equipment identification numbers for pressure relief devices required to comply with Section 724.954(a).

4) Compliance tests.

A) The dates of each compliance test required in Sections 724.952(e), 724.953(i), 724.954 and 724.957(f).

B) The background level measured during each compliance test.

C) The maximum instrument reading measured at the equipment during each compliance test.

5) A list of identification numbers for equipment in vacuum service.

h) The following information pertaining to all valves subject to the requirements of Section 724.957(g) and (h) must be recorded in a log that is kept in the facility operating record:

1) A list of identification numbers for valves that are designated as unsafe to monitor, an explanation for each valve stating why the valve is unsafe to monitor, and the plan for monitoring each valve.

2) A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve.

i) The following information must be recorded in the facility operating record for valves complying with Section 724.962:

1) A schedule of monitoring.

2) The percent of valves found leaking during each monitoring period.

j) The following information must be recorded in a log that is kept in the facility operating record:

1) Criteria required in Section 724.952(d)(5)(B) and 724.953(e)(2) and an explanation of the design criteria.

2) Any changes to these criteria and the reasons for the changes.

k) The following information must be recorded in a log that is kept in the facility operating record for use in determining exemptions as provided in Section 724.950 and other specific Subparts:

1) An analysis determining the design capacity of the hazardous waste management unit.

2) A statement listing the hazardous waste influent to and effluent from each hazardous waste management unit subject to the requirements in Sections 724.960 and an analysis determining whether these hazardous wastes are heavy liquids.

3) An up-to-date analysis and the supporting information and data used to determine whether or not equipment is subject to the requirements in Sections 724.952 through 724.960. The record must include supporting documentation as required by Section 724.963(d)(3) when application of the knowledge of the nature of the hazardous wastestream or the process by which it was produced is used. If the owner or operator takes any action (e.g., changing the process that produced the waste) that could result in an increase in the total organic content of the waste contained in or contacted by equipment determined not to be subject to the requirements in Sections 724.952 through 724.960, then a new determination is required.

l) Records of the equipment leak information required by subsection (d) and the operating information required

by subsection (e) need be kept only 3 years.

m) The owner or operator of any facility that is subject to this Subpart and to regulations at 40 CFR 60, Subpart VV, or 40 CFR 61, Subpart V, incorporated by reference in 35 Ill. Adm. Code 720.111, may elect to determine compliance with this Subpart by documentation either pursuant to Section 724.964, or pursuant to those provisions of 40 CFR 60 or 61, to the extent that the documentation under the regulation at 40 CFR 60 or 61 duplicates the documentation required under this Subpart. The documentation under the regulation at 40 CFR 60 or 61 must be kept with or made readily available with the facility operating record.

Source: Added at 15 Ill. Reg. effective

Section 724.965 Reporting Requirements

a) A semiannual report must be submitted by owners and operators subject to the requirements of this Subpart to the Agency by dates specified in the RCRA permit. The report must include the following information:

1) The USEPA identification number (35 Ill. Adm. Code 722.112), name, and address of the facility.

2) For each month during the semiannual reporting period:

A) The equipment identification number of each valve for which a leak was not repaired as required in Section 724.957(d).

B) The equipment identification number of each pump for which a leak was not repaired as required in Sections 724.952(c) and (d)(6).

C) The equipment identification number of each compressor for which a leak was not repaired as required in Section 724.953(g).

3) Dates of hazardous waste management unit shutdowns that occurred within the semiannual reporting period.

4) For each month during the semiannual reporting period, dates when the control device installed as required by Sections 724.952, 724.953, 724.954 or 724.955, exceeded or operated outside of the design specifications as defined in Section

724.964(e) and as indicated by the control device monitoring required by Section 724.960 and was not corrected within 24 hours, the duration and cause of each exceedance, and any corrective measures taken.

b) If, during the semiannual reporting period, leaks from valves, pumps and compressors are repaired as required in Sections 724.957(d), 724.952(c) and (d)(6), and 724.953(g), respectively, and the control device does not exceed or operate outside of the design specifications as defined in Section 724.964(e) for more than 24 hours, a report to the Agency is not required.

Source: Added at 15 Ill. Reg. , effective

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

PART 725
INTERIM STATUS STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE AND DISPOSAL FACILITIES

SUBPART A: GENERAL PROVISIONS

SUBPART B: GENERAL FACILITY STANDARDS

SUBPART C: PREPAREDNESS AND PREVENTION

SUBPART D: CONTINGENCY PLAN AND EMERGENCY PROCEDURES

SUBPART E: MANIFEST SYSTEM, RECORDKEEPING AND REPORTING

SUBPART F: GROUNDWATER MONITORING

SUBPART G: CLOSURE AND POST-CLOSURE

SUBPART H: FINANCIAL REQUIREMENTS

SUBPART I: USE AND MANAGEMENT OF CONTAINERS

SUBPART J: TANK SYSTEMS

SUBPART K: SURFACE IMPOUNDMENTS

SUBPART L: WASTE PILES

SUBPART M: LAND TREATMENT

SUBPART N: LANDFILLS

SUBPART O: INCINERATORS

SUBPART P: THERMAL TREATMENT

SUBPART Q: CHEMICAL, PHYSICAL AND BIOLOGICAL TREATMENT

SUBPART R: UNDERGROUND INJECTION

SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS

AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1989, ch. 111-1/2, pars. 1022.4 and 1027).

SOURCE: Adopted in R81-22, 43 PCB 427, at 5 Ill. Reg. 9781, effective as noted in 35 Ill. Adm. Code 700.106; amended and codified in R81-22, 45 PCB 317, at 6 Ill. Reg. 4828, effective as noted in 35 Ill. Adm. Code 700.106; amended in R82-18, 51 PCB 831, at 7 Ill. Reg. 2518, effective February 22, 1983; amended in R82-19, 53 PCB 131, at 7 Ill. Reg. 14034, effective October 12, 1983; amended in R84-9, at 9 Ill. Reg. 11869, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 1085, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 14069, effective August 12, 1986; amended in R86-28 at 11 Ill. Reg. 6044, effective March 24, 1987; amended in R86-46 at 11 Ill. Reg. 13489, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19338, effective November 10, 1987; amended in R87-26 at 12 Ill. Reg. 2485, effective January 15, 1988; amended in R87-39 at 12 Ill. Reg. 13027, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg.

437, effective December 28, 1988; amended in R89-1 at 13 Ill. Reg. 18354, effective November 13, 1989; amended in R90-2 at 14 Ill. Reg. 14447, effective August 22, 1990; amended in R90-10 at 14 Ill. Reg. 16498, effective September 25, 1990; amended in R90-11 at 15 Ill. Reg. , effective

SUBPART A: GENERAL PROVISIONS

Section 725.101 Purpose, Scope and Applicability

a) The purpose of this Part is to establish minimum standards which define the acceptable management of hazardous waste during the period of interim status and until certification of final closure or, if the facility is subject to post-closure requirements, until post-closure responsibilities are fulfilled.

b) The standards in this Part apply to owners and operators of facilities which treat, store or dispose of hazardous waste who have fully complied with the requirements for interim status under Section 3005(e) of the Resource Conservation and Recovery Act (RCRA) (42 U.S.C. 6901 et seq.) and 35 Ill. Adm. Code 703, until either a permit is issued under Section 3005 of the Resource Conservation and Recovery Act or Section 21(f) of the Environmental Protection Act, or until applicable closure and post-closure responsibilities under this Part are fulfilled, and to those owners and operators of facilities in existence on November 19, 1980, who have failed to provide timely notification as required by Section 3010(a) of RCRA, or failed to file Part A of the Permit Application as required by 40 CFR 270.10(e) and (g) or 35 Ill. Adm. Code 703.150 and 703.152. These standards apply to all treatment, storage or disposal of hazardous waste at these facilities after November 19, 1980, except as specifically provided otherwise in this Part or 35 Ill. Adm. Code 721;

BOARD NOTE: As stated in Section 3005(a) of RCRA, after the effective date of regulations under that Section, i.e., 40 CFR 270 and 124, the treatment, storage or disposal of hazardous waste is prohibited except in accordance with a permit. Section 3005(e) of RCRA provides for the continued operation of an existing facility which meets certain conditions until final administrative disposition of the owner's and operator's permit application is made. 35 Ill. Adm. Code 703.140 et seq. provide that a permit is deemed issued under Section 21(f)(1) of the Environmental Protection Act under conditions similar to federal

interim status.

c) The requirements of this Part do not apply to:

1) A person disposing of hazardous waste by means of ocean disposal subject to a permit issued under the Marine Protection, Research and Sanctuaries Act (16 U.S.C. 1431-1434; 33 U.S.C. 1401);

BOARD NOTE: This Part applies to the treatment or storage of hazardous waste before it is loaded into an ocean vessel for incineration or disposal at sea, as provided in subsection (b).

3) The owner or operator of a POTW (publicly owned treatment works) which treats, stores or disposes of hazardous waste;

BOARD NOTE: The owner or operator of a facility under subsections (c)(1) through (c)(3) is subject to the requirements of 35 Ill. Adm. Code 724 to the extent they are included in a permit by rule granted to such a person under 35 Ill. Adm. Code 702 and 703 or are required by 35 Ill. Adm. Code 704.Subpart F.

5) The owner or operator of a facility permitted, licensed or registered by Illinois to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores or disposes of is excluded from regulation under this Part by 35 Ill. Adm. Code 721.105;

6) The owner or operator of a facility managing recyclable materials described in 35 Ill. Adm. Code 721.106(a)(2) and (3) (except to the extent that requirements of this Part are referred to in 35 Ill. Adm. Code 726.Subparts C, D, F or G;

7) A generator accumulating waste on-site in compliance with 35 Ill. Adm. Code 722.134, except to the extent the requirements are included in 35 Ill. Adm. Code 722.134;

8) A farmer disposing of waste pesticides from the farmer's own use in compliance with 35 Ill. Adm. Code 722.170;

9) The owner or operator of a totally enclosed treatment facility, as defined in 35 Ill. Adm. Code 720.110;

10) The owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in 35 Ill. Adm. Code 720.110;

11) Immediate response:

A) Except as provided in subsection (c)(11)(B), a person engaged in treatment or containment activities during immediate response to any of the following situations:

i) A discharge of a hazardous waste;

ii) An imminent and substantial threat of a discharge of a hazardous waste;

iii) A discharge of a material which, when discharged, becomes a hazardous waste.

B) An owner or operator of a facility otherwise regulated by this Part must comply with all applicable requirements of Subparts C and D.

C) Any person who is covered by subsection (c)(11)(A) and who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this Part and 35 Ill. Adm. Code 702, 703 and 705 for those activities.

12) A transporter storing manifested shipments of hazardous waste in containers meeting the requirements of 35 Ill. Adm. Code 722.130 at a transfer facility for a period of ten days or less.

13) The addition of absorbent material to waste in a container (as defined in 35 Ill. Adm. Code 720.110), or the addition of waste to the absorbent material in a container, provided that these actions occur at the time waste is first placed in the containers; and Sections 725.117(b), 725.271 and 725.272 are complied with.

d) The following hazardous wastes must not be managed at facilities subject to regulation under this Part: hazardous waste numbers F020, F021, F022, F023, F026 or F027 unless:

1) The wastewater treatment sludge is generated in a surface impoundment as part of the plant's

wastewater treatment system;

2) The waste is stored in tanks or containers;

3) The waste is stored or treated in waste piles that meet the requirements of 35 Ill. Adm. Code 724.350(c) as well as all other applicable requirements of Subpart L;

4) The waste is burned in incinerators that are certified pursuant to the standards and procedures in Section 725.452; or

5) The waste is burned in facilities that thermally treat the waste in a device other than an incinerator and that are certified pursuant to the standards and procedures in Section 725.483.

e) This Part applies to owners and operators of facilities which treat, store or dispose of hazardous wastes referred to in 35 Ill. Adm. Code 728, and the 35 Ill. Adm. Code 728 standards are considered material conditions or requirements of the interim status standards of this Part.

f) 35 Ill. Adm. Code 700 contains rules concerning application of other Board regulations.

Source: Amended at 15 Ill. Reg. , effective

SUBPART B: GENERAL FACILITY STANDARDS

Section 725.113 General Waste Analysis

a) Waste analysis:

1) Before an owner or operator treats, stores or disposes of any hazardous waste, or non-hazardous waste if applicable under Section 725.213(d), the owner or operator shall obtain a detailed chemical and physical analysis of a representative sample of the waste. At a minimum, this analysis must contain all the information which must be known to treat, store or dispose of the waste in accordance with the requirements of this Part and 35 Ill. Adm. Code 728.

2) The analysis may include data developed under 35 Ill. Adm. Code 721 and existing published or documented data on the hazardous waste or on waste

generated from similar processes.

BOARD NOTE: For example, the facility's record of analyses performed on the waste before the effective date of these regulations or studies conducted on hazardous waste generated from processes similar to that which generated the waste to be managed at the facility may be included in the data base required to comply with subsection (a)(1), except as otherwise specified in 35 Ill. Adm. Code 728.107(b) and (c). The owner or operator of an off-site facility may arrange for the generator of the hazardous waste to supply part or all of the information required by subsection (a)(1). If the generator does not supply the information and the owner or operator chooses to accept a hazardous waste, the owner or operator is responsible for obtaining the information required to comply with this Section.

3) The analysis must be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis must be repeated:

   A) When the owner or operator is notified, or has reason to believe, that the process or operation generating the hazardous waste, or non-hazardous waste if applicable under Section 725.213(d), has changed; and

   B) For off-site facilities, when the results of the inspection required in subsection (a)(4) indicate that the hazardous waste received at the facility does not match the waste designated on the accompanying manifest or shipping paper.

4) The owner or operator of an off-site facility shall inspect and, if necessary, analyze each hazardous waste movement received at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.

b) The owner or operator shall develop and follow a written waste analysis plan which describes the procedures which the owner or operator will carry out to comply with subsection (a). The owner or operator shall keep this plan at the facility. At a minimum, the plan must specify:

1) The parameters for which each hazardous waste, or

non-hazardous waste if applicable under Section 725.213(d), will be analyzed and the rationale for the selection of these parameters (i.e., how analysis for these parameters will provide sufficient information on the waste's properties to comply with subsection (a).

2) The test methods which will be used to test for these parameters.

3) The sampling method which will be used to obtain a representative sample of the waste to be analyzed. A representative sample may be obtained using either:

   A) One of the sampling methods described in 35 Ill. Adm. Code 721.Appendix A or

   B) An equivalent sampling method.

      BOARD NOTE: See 35 Ill. Adm. Code 720.120(c) for related discussion.

4) The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up-to-date.

5) For off-site facilities, the waste analyses that hazardous waste generators have agreed to supply.

6) Where applicable, the methods which will be used to meet the additional waste analysis requirements for specific waste management methods as specified in Sections 725.293, 725.325, 725.352, 725.373, 725.414, 725.441, 725.475, ~~and~~ 725.502, 725.934(d) and 725.963(d), and 35 Ill. Adm. Code 728.107. And,

7) For surface impoundments exempted from land disposal restrictions under 35 Ill. Adm. Code 728.104(a), the procedures and schedules for:

   A) The sampling of impoundment contents;

   B) The analysis of test data; and,

   C) The annual removal of residues which are not delisted under 35 Ill. Adm. Code 720.122 or which exhibit a characteristic of hazardous waste, and either:

      i) Do not meet applicable treatment

standards of 35 Ill. Adm. Code 728.Subpart D; or

ii) Where no treatment standards have been established: Such residues are prohibited from land disposal under 35 Ill. Adm. Code 728.132 or 728.139; or such residues are prohibited from land disposal under 35 Ill. Adm. Code 728.133(f).

c) For off-site facilities, the waste analysis plan required in subsection (b) must also specify the procedures which will be used to inspect and, if necessary, analyze each movement of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. At a minimum, the plan must describe:

1) The procedures which will be used to determine the identity of each movement of waste managed at the facility; and

2) The sampling method which will be used to obtain a representative sample of the waste to be identified, if the identification method includes sampling.

Source: Amended at 15 Ill. Reg. , effective

Section 725.115 General Inspection Requirements

a) The owner or operator shall inspect the facility for malfunctions and deterioration, operator errors and discharges which may be causing -- or may lead to -- the conditions listed below. The owner or operator shall conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

1) Release of hazardous waste constituents to the environment or

2) A threat to human health.

b) 1) The owner or operator shall develop and follow a written schedule for inspecting all monitoring equipment, safety and emergency equipment, security devices and operating and structural equipment (such as dikes and sump pumps) that are

important to preventing, detecting or responding to environmental or human health hazards.

2) The owner or operator shall keep this schedule at the facility.

3) The schedule must identify the types of problems (e.g., malfunctions or deterioration) which are to be looked for during the inspection (e.g., inoperative sump pump, leaking fitting, eroding dike, etc.).

4) The frequency of inspection may vary for the items on the schedule. However, it should be based on the rate of possible deterioration of the equipment and the probability of an environmental or human health incident if the deterioration or malfunction or any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use. At a minimum, the inspection schedule must include the items and frequencies called for in Sections 725.274, 725.293, 725.295, 725.326, 725.447, 725.477, ~~and~~ 725.503, 725.933, 725.952, 725.953 and 725.958.

c) The owner or operator shall remedy any deterioration or malfunction of equipment or structure which the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.

d) The owner or operator shall record inspections in an inspection log or summary. The owner or operator shall keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made and the date and nature of any repairs or other remedial actions.

Source: Amended at 15 Ill. Reg. , effective

SUBPART E: MANIFEST SYSTEM, RECORDKEEPING AND REPORTING

Section 725.173 Operating Record

a) The owner or operator shall keep a written operating record at the facility.

b) The following information must be recorded as it becomes available and maintained in the operating record until closure of the facility.

1) A description and the quantity of each hazardous waste received and the method or methods and date or dates of its treatment, storage or disposal at the facility as required by Appendix A;

2) The location of each hazardous waste within the facility and the quantity at each location. For disposal facilities the location and quantity of each hazardous waste must be recorded on a map or diagram of each cell or disposal area. For all facilities this information must include cross-references to specific manifest document numbers if the waste was accompanied by a manifest;

BOARD NOTE: See Sections 725.219, 725.379 and 725.409 for related requirements.

3) Records and results of waste analysis and trial tests performed as specified in Sections 725.113, 725.293, 725.325, 725.352, 725.373, 725.414, 725.441, 725.475, ~~and~~ 725.502, 725.934 and 725.963 and 35 Ill. Adm. Code 728.104(a) and 728.107;

4) Summary reports and details of all incidents that require implementing the contingency plan as specified in Section 725.156(j);

5) Records and results of inspections as required by Sections 725.115(d) (except these data need be kept only three years);

6) Monitoring, testing or analytical data where required by Sections 725.190, 725.194, 725.291, 725.293, 725.295, 725.376, 725.378, 725.380(d)(1), 725.447, ~~and~~ 725.477, 725.934(c) through (f), 725.935, 725.963(d) through (i) and 725.964;

BOARD NOTE: As required by Section 725.194, monitoring data at disposal facilities must be kept throughout the post-closure period.

7) All closure cost estimates under Section 725.242 and, for disposal facilities, all post-closure cost estimates under Section 725.244;

8) Records of the quantities (and date of placement) for each shipment of hazardous waste placed in

land disposal units under an extension of the effective date of any land disposal restriction granted pursuant to 35 Ill. Adm. Code 728.105, a petition pursuant to 35 Ill. Adm. Code 728.106 or a certification under 35 Ill. Adm. Code 728.108, and the applicable notice required of a generator under 35 Ill. Adm. Code 728.107(a);

9) For an off-site treatment facility, a copy of the notice, and the certification and demonstration, if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108;

10) For an on-site treatment facility, the information contained in the notice (except the manifest number), and the certification and demonstration, if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108;

11) For an off-site land disposal facility, a copy of the notice, and the certification and demonstration, if applicable, required of the generator or the owner or operator of a treatment facility under 35 Ill. Adm. Code 728.107 or 728.108, whichever is applicable; and

12) For an on-site land disposal facility, the information contained in the notice required of the generator or owner or operator of a treatment facility under 35 Ill. Adm. Code 728.107, except for the manifest number, and the certification and demonstration, if applicable, required under 35 Ill. Adm. Code 728.108, whichever is applicable.

13) For an off-site storage facility, a copy of the notice, and the certification and demonstration if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108; and,

14) For an on-site storage facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108.

Source: Amended at 15 Ill. Reg. , effective

Section 725.177 Additional Reports

In addition to submitting the annual report and unmanifested waste reports described in ~~§§~~Sections 725.175 and 725.176, the owner or operator ~~must~~shall also report to the ~~Director~~Agency:

a) Releases, fires and explosions as specified in ~~§~~Section 725.156(j);

b) Groundwater contamination and monitoring data as specified in ~~§§~~Section 725.193 and 725.194; ~~and~~

c) Facility closure as specified in ~~§~~Section 725.215~~.~~; and

d) As otherwise required by Subparts AA and BB.

Source: Amended at 15 Ill. Reg. , effective

SUBPART K: SURFACE IMPOUNDMENTS

Section 725.329 Special Requirements for Ignitable or Reactive Waste

Ignitable or reactive waste must not be placed in a surface impoundment, unless the waste and impoundment satisfy all applicable requirements of 35 Ill. Adm. Code 728, and:

a) The waste is treated, rendered or mixed before or immediately after placement in the impoundment so that

1) The resulting waste, mixture or dissolution of material no longer meets the definition of ignitable or reactive waste under 35 Ill. Adm. Code 721.121 or 721.123; and

2) Section 725.117(b) is complied with; or

b) Management conditions.

1) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react; and

2) The owner or operator obtains a certification from a qualified chemist or engineer that, to the best of the chemist or engineer's knowledge and opinion, the design features or operating plans of the facility will prevent ignition or reaction; and

3) The certification and the basis for it are

maintained at the facility; or

c) The surface impoundment is used solely for emergencies.

Source: Amended at 15 Ill. Reg. , effective

SUBPART L: WASTE PILES

Section 725.356 Special Requirements for Ignitable or Reactive Waste

Ignitable or reactive ~~wastes~~ must not be placed in a pile unless the waste and pile meet all applicable requirements of 35 Ill. Adm. Code 728, and:

a) Addition of the waste to an existing pile:

1) Results in the waste or mixture no longer meeting the definition of ignitable or reactive waste under ~~§§~~35 Ill. Adm. Code 721.121 or 721.123; and

2) Complies with ~~§~~Section 725.117(b); or

b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

Source: Amended at 15 Ill. Reg. , effective

SUBPART M: LAND TREATMENT

Section 725.381 Special Requirements for Ignitable or Reactive Waste

~~Ignitable or reactive wastes must not be land treated unless:~~The owner or operator shall not apply ignitable or reactive waste to the treatment zone unless unless the waste and treatment zone meet all applicable requirements of 35 Ill. Adm. Code 728, and:

a) The waste is immediately incorporated into the soil so that:

1) The resulting waste, mixture or dissolution of material no longer meets the definition of ignitable or reactive waste under ~~Section 725.121 or~~ 35 Ill. Adm. Code 721.121 or 721.123; and

2) Section ~~725~~724.117(b) is complied with; or

b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

Source: Amended at 15 Ill. Reg. , effective

SUBPART N: LANDFILLS

Section 725.412 Special Requirements for Ignitable or Reactive Waste

a) Except as provided in ~~paragraph~~subsection (b) and in Section 725.416, ignitable or reactive waste must not be placed in a landfill, unless the waste and landfill meets all applicable requirements of 35 Ill. Adm. Code 728, and the waste is treated, rendered or mixed before or immediately after placement in a landfill so that:

1) The resulting waste, mixture or dissolution of material no longer meets the definition of ignitable or reactive waste under 35 Ill. Adm. Code 721.121 or 721.123; and

2) Section 725.117(b) is complied with.

b) ~~I~~Except for prohibited wastes which remain subject to treatment standards in 35 Ill. Adm. Code 728.Subpart D, ignitable waste in containers may be landfilled without meeting the requirements of ~~paragraph~~subsection (a), provided that the wastes are disposed of in such a way that they are protected from any material or conditions which may cause them to ignite. At a minimum, ignitable wastes must be disposed of in non-leaking containers which are carefully handled and placed so as to avoid heat, sparks, rupture or any other condition that might cause ignition of the wastes; must be covered daily with soil or other non-combustible material to minimize the potential for ignition of the wastes; and must not be disposed in cells that contain or will contain other wastes which may generate heat sufficient to cause ignition of the waste.

Source: Amended at 15 Ill. Reg. , effective

Section 725.416 Disposal of Small Containers of Hazardous Waste in Overpacked Drums (Lab Packs)

Small containers of hazardous waste in overpacked drums (lab packs) may be placed in a landfill if the following requirements

are met:

a) Hazardous waste must be packaged in non-leaking inside containers. The inside containers must be of a design and constructed of a material that will not react dangerously with, be decomposed by or be ignited by the contained waste. The inside containers must be tightly and securely sealed. The inside containers must be of the size and type specified in the Department of Transportation (DOT) hazardous materials regulations (49 CFR 173, 178 and 179, incorporated by reference in 35 Ill. Adm. Code 720.111), if those regulations specify a particular inside container for the waste.

b) The inside containers must be overpacked in an open head DOT-specification metal shipping container (49 CFR 178 and 179) of no more than 416 liter (110 gallon) capacity and surrounded by, at a minimum, a sufficient quantity of absorbent material to completely absorb all of the liquid contents of the inside containers. The metal outer container must be full after packing with inside containers and absorbent material.

c) In accordance with Section 725.117(b), the absorbent material used must not be capable of reacting dangerously with, being decomposed by or being ignited by the contents of the inside containers.

d) Incompatible waste, as defined in 35 Ill. Adm. Code 720.110, must not be placed in the same outside container.

e) Reactive wastes, other than cyanide- or sulfide-bearing waste as defined in 35 Ill. Adm. Code 721.123(a)(5), must be treated or rendered non-reactive prior to packaging in accordance with ~~paragraph~~subsections (a) through (d). Cyanide- and sulfide-bearing reacitve waste may be packed in accordance with ~~paragraph~~subsections (a) through (d) without first being treated or rendered non-reactive.

f) Such disposal is in compliance with the requirements of 35 Ill. Adm. Code 728. Persons who incinerate lab packs according to the requirements of 35 Ill. Adm. Code 728.142(c)(1) may use fiber drums in place of metal outer containers. Such fiber drums must meet the DOT specifications in 49 CFR 171.12 and be overpacked according to subsection (b).

g) Pursuant to 35 Ill. Adm. Code 729.312, the use of labpacks for disposal of liquid wastes or wastes containing free liquids allowed under this Section is

restricted to labwaste and non-periodic waste, as those terms are defined in that Part.

Source: Amended at 15 Ill. Reg. , effective

SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS

Section 725.930 Applicability

a) This Subpart applies to owners and operators of facilities that treat, store or dispose of hazardous wastes (except as provided in Section 725.101).

b) Except for Sections 725.934(d) and 725.935(e), this Subpart applies to process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations that manage hazardous wastes with organic concentrations of at least 10 ppmw (parts per million by weight), if these operations are conducted in:

1) Units that are subject to the permitting requirements of 35 Ill. Adm. Code 703; or

2) Hazardous waste recycling units that are located on hazardous waste management facilities otherwise subject to the permitting requirements of 35 Ill. Adm. Code 703.

BOARD NOTE: The requirements of Sections 725.932 through 725.936 apply to process vents on hazardous waste recycling units previously exempt under 35 Ill. Adm. Code 721.106(c)(1). Other exemptions under 35 Ill. Adm. Code 721.104, 722.134 and 725.101(c) are not affected by these requirements.

c) Agency decisions pursuant to this Part must be made in writing, are in the nature of permit decisions pursuant to Section 39 of the Environmental Protection Act and may be appealed to the Board pursuant to 35 Ill. Adm. Code 105.

Source: Added at 15 Ill. Reg. , effective

Section 725.931 Definitions

As used in this Subpart, all terms not defined in the Subpart have the meaning given them in 35 Ill. Adm. Code 724.931, the

Resource Conservation and Recovery Act and 35 Ill. Adm. Code 720 through 726.

BTU means British thermal unit.

ft means foot.

h means hour.

kg means kilogram.

kPa means kilopascals.

lb means pound.

m means meter.

Mg means Megagrams, or metric tonnes.

MJ means Megajoules, or ten to the sixth Joules.

MW means Megawatts.

ppmv means parts per million by volume.

ppmw meant parts per million by weight.

s means second.

scm means standard cubic meter.

scft meant standard cubic foot.

yr means year.

Source: Added at 15 Ill. Reg. , effective

Section 725.932 Standards: Process Vents

a) The owner or operator of a facility with process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations managing hazardous wastes with organic concentrations of at least 10 ppmw shall either:

1) Reduce total organic emissions from all affected process vents at the facility below 1.4 kg/h (3 lb/h) and 2.8 Mg/yr (3.1 tons/yr); or

2) Reduce, by use of a control device, total organic

emissions from all affected process vents at the facility by 95 weight percent.

b) If the owner or operator installs a closed-vent system and control device to comply with the provisions of subsection (a), the closed-vent system and control device must meet the requirements of Section 725.933.

c) Determinations of vent emissions and emission reductions or total organic compound concentrations achieved by add-on control devices must be based on either engineering calculations or performance tests. If performance tests are used to determine vent emissions, emission reductions, or total organic compound concentrations achieved by add-on control devices, the performance tests must conform with the requirements of Section 725.934(c).

d) When an owner or operator and the Agency do not agree on determinations of vent emissions or emission reductions or total organic compound concentrations achieved by add-on control devices based on engineering calculations, the test methods in Section 725.934(c) must be used to resolve the disagreement.

Source: Added at 15 Ill. Reg. , effective

Section 725.933 Standards: Closed-vent Systems and Control Devices

a) Compliance Required.

1) Owners or operators of closed-vent systems and control devices used to comply with provisions of this Part shall comply with the provisions of this Section.

2) The owner or operator of an existing facility who cannot install a closed-vent system and control device to comply with the provisions of this Subpart on the effective date that the facility becomes subject to the provisions of this Subpart shall prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls must be installed as soon as possible, but the implementation schedule may allow up to 18 months after the effective date that the facility becomes subject to this Subpart for installation and startup. All units that begin operation after December 21, 1990, must

comply with the rules immediately (i.e., must have control devices installed and operating on startup of the affected unit); the 2-year implementation schedule does not apply to these units.

b) A control device involving vapor recovery (e.g., a condenser or adsorber) must be designed and operated to recover the organic vapors vented to it with an efficiency of 95 weight percent or greater unless the total organic emission limits of Section 725.932(a)(1) for all affected process vents is attained at an efficiency less than 95 weight percent.

c) An enclosed combustion device (e.g., a vapor incinerator, boiler or process heater) must be designed and operated to reduce the organic emissions vented to it by 95 weight percent or greater; to achieve a total organic compound concentration of 20 ppmv, expressed as the sum of the actual compounds, not carbon equivalents, on a dry basis corrected to 3 percent oxygen; or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 C. If a boiler or process heater is used as the control device, then the vent stream must be introduced into the flame combustion zone of the boiler or process heater.

d) Flares

1) A flare must be designed for and operated with no visible emissions as determined by the methods specified in subsection (e)(1) except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

2) A flare must be operated with a flame present at all times, as determined by the methods specified in subsection (f)(2)(c).

3) A flare must be used only if the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or if the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted must be determined by the methods specified in subsection (e)(2).

4) Exit Velocity.

A) A steam-assisted or nonassisted flare must be designed for an operated with an exit

velocity, as determined by the methods specified in subsection (e)(3), less than 18.3 m/s (60 ft/s), except as provided in subsections (d)(4)(B) and (C).

B) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3), equal to or greater than 18.3 m/s (60 ft/s) but less than 122 m/s (400 ft/s) is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1000 Btu/scf).

C) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3), less than the velocity, V as determined by the method specified in subsection (e)(4) and less than 122 m/s (400 ft/s) is allowed.

5) An air-assisted flare must be designed and operated with an exit velocity less than the velocity, V as determined by the method specified in subsection (e)(5).

6) A flare used to comply with this Section must be steam-assisted, air-assisted or nonassisted.

e) 1) Reference Method 22 in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111, must be used to determine the compliance of a flare with the visible emission provisions of this Subpart. The observation period is 2 hours and must be used according to Method 22.

2) The net heating value of the gas being combusted in a flare must be calculated using the following equation:

H = K * SUM(Ci * Hi)

Where:

H is the net heating value of the sample in MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 C and 760 mm Hg, but the standard temperature for determining the volume correrssponding to 1 mole is 20 C.

K = 1.74 E -7 (1/ppm)(g mol/scm)(MJ/kcal) where standard temperature for (g mol/scm) 20 C.

SUM(Xi) means the sum of the values of X for each component i, from i=1 to n.

Ci is the concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 in 40 CFR 60, and for carbon monoxide, by ASTM D1946, incorporated by reference in 35 Ill. Adm. Code 720.111.

Hi is the net heat of combustion of sample component i, kcal/gmol at 25 C and 760 mm Hg. The heats of combustion must be determined using ASTM D2382, incorporated by reference in 35 Ill. Adm. Code 720.111, if published values are not available or cannot be calculated.

3) The actual exit velocity of a flare must be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

4) The maximum allowed velocity in m/s, V for a flare complying with subsection (d)(4)(C) must be determined by the following equation:

LOG(V) = (H + 28.8) / 31.7

Where:

LOG means logarithm to the base 10

H is the net heating value as determined in subsection (e)(2).

5) The maximum allowed velocity in m/s, V for an air-assisted flare must be determined by the following equation:

V = 8.706 + 0.7084H

Where:

H is the net heating value as determined in subsection (e)(2)

f) The owner or operator shall monitor and inspect each control device required to comply with this Section to ensure proper operation and maintenance of the control device by implementing the following requirements:

1) Install, calibrate, maintain and operate according to the manufacturer's specifications a flow indicator that provides a record of vent stream flow from each affected process vent to the control device at least once every hour. The flow indicator sensor must be installed in the vent stream at the nearest feasible point to the control device inlet but before being combined with other vent streams.

2) Install, calibrate, maintain and operate according to the manufacturer's specifications a device to continuously monitor control device operation as specified below:

A) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device must have accuracy of ± 1 percent of the temperature being monitored in C or ± C, whichever is greater. the temperature sensor must be installed at a location in the combustion chamber downstream of the combustion zone.

B) For a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature at two locations and have an accuracy of ±1 percent of the temperature being monitored in C or ± 0.5 C, whichever is greater. One temperature sensor must be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor must be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.

C) For a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.

D) For a boiler or process heater having a

design heat input capacity less than 44 MW, a temperature monitoring device equipped with a continuous recorder. The device must have an accuracy of ± 1 percent of the temperature being monitored in C or ± 0.5 C, whichever is greater. The temperature sensor must be installed at a location in the furnace downstream of the combustion zone.

E) For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW, a monitoring device equipped with a continuous recorder to measure a parameter(s) that indicates good combustion operating practices are being used.

F) For a condenser, either:

i) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser; or

ii) A temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature at two locations and have an accuracy of ± 1 percent of the temperature being monitored in C or ± 0.5 C, whichever is greater. One temperature sensor must be installed at a location in the exhaust vent stream from the condenser, and a second temperature sensor must be installed at a location in the coolant fluid exiting the condenser.

G) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly in the control device, either:

i) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed; or

ii) A monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed

is regenerated on a regular, predetermined time cycle.

3) Inspect the readings from each monitoring device required by subsection (f)(1) and (2) at least once each operating day to check control device operation and, if necessary, immediately implement the corrective measures necessary to ensure the control device operates in compliance with the requirements of this Section.

g) An owner or operator using a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is no longer than the carbon service life established as a requirement of Section 725.935(b)(4)(C)(vi).

h) An owner or operator using a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device shall replace the existing carbon in the control device with fresh carbon on a regular basis by using one of the following procedures:

1) Monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system on a regular schedule, and replace the existing carbon with fresh carbon immediately when carbon breakthrough is indicated. The monitoring frequency must be daily or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity established as a requirement of Section 725.935(b)(4)(C)(vii), whichever is longer.

2) Replace the existing carbon with fresh carbon at a regular, predetermined time interval that is less than the design carbon replacement interval established as a requirement of Section 725.935(b)(4)(C)(vii).

i) An owner or operator of an affected facility seeking to comply with the provisions of this Part by using a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser or carbon adsorption system is required to develop documentation including sufficient information to describe the control device operation and identify the process parameter or parameters that

indicate proper operation and maintenance of the control device.

j) Closed vent systems.

1) Closed-vent systems must be designed for and operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background and by visual inspections, as determined by the methods specified at Section 725.934(b).

2) Closed-vent systems must be monitored to determine compliance with this Section during the initial leak detection monitoring, which must be conducted by the date that the facility becomes subject to the provisions of this Section annually, and at other times as specified by the Agency pursuant to Section 725.930(c).

3) Detectable emissions, as indicated by an instrument reading greater than 500 ppm and visual inspections, must be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected.

4) A first attempt at repair must be made no later than 5 calendar days after the emission is detected..

k) Closed-vent systems and control devices used to comply with provisions of this Subpart must be operated at all times when emissions may be vented to them.

Source: Added at 15 Ill. Reg. , effective

Section 725.934 Test Methods and Procedures

a) Each owner or operator subject to the provisions of this Subpart shall comply with the test methods and procedures requirements provided in this Section

b) When a closed-vent system is tested for compliance with no detectable emissions, as required in Section 725.933(j), the test must comply with the following requirements:

1) Monitoring must comply with Reference Method 21 in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111.

2) The detection instrument must meet the performance criteria of Reference Method 21.

3) The instrument must be calibrated before use on each day of its use by the procedures specified in Reference Method 21.

4) Calibration gases must be:

A) Zero air (less than 10 ppm of hydrocarbon in air).

B) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.

5) The background level must be determined as set forth in Reference Method 21.

6) The instrument probe must be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

7) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

c) Performance tests to determine compliance with Section 725.932(a) and with the total organic compound concentration limit of Section 725.933(c) must comply with the following:

1) Performance tests to determine total organic compound concentrations and mass flow rates entering and exiting control devices must be conducted and data reduced in accordance with the following reference methods and calculation procedures:

A) Method 2 in 40 CFR 60 for velocity and volumetric flow rate.

B) Method 18 in 40 CFR 60 for organic content.

C) Each performance test must consist of three separate runs, each run conducted for at least 1 hour under the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. For the

purpose of determining total organic compound concentrations and mass flow rates, the average of results of all runs applies. The average must be computed on a time-weighed basis.

D) Total organic mass flow rates must be determined by the following equation:

F = K * Q * SUM(Ci * MWi)

Where:

F is the total organic mass flow rate, kg/h.

K = 4.16 E -8, conversion factor for molar volume, kg-mol/cubic m, at 293 K and 760 mm Hg.

Q = volumetric flow rate of gases entering or exiting control device, dscm/h, as determined by Method 2 in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111.

SUM(Xi) means the sum of the values of X for each component i, from i=1 to n.

n = number of organic compounds in the vent gas.

Ci is the organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Method 18 in 40 CFR 60.

MWi is the molecular weight of organic compound i in the vent gas, kg/kg-mol.

E) The annual total organic emission rate must be determined by the following equation:

A = F * HOURS

Where:

A is total organic emission rate, kg/y.

F is the total organic mass flow rate, kg/h, as calculated in subsection (c)(1)(D).

HOURS is the total annual hours of operation for the affected unit.

F) Total organic emissions from all affected process vents at the facility must be determined by summing the hourly total organic mass emissions rates (F as determined in subsection (c)(1)(D)) and by summing the annual total organic mass emission rates (A as determined in subsection (c)(1)(E)) for all affected process vents at the facility.

2) The owner or operator shall record such process information as is necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown and malfunction do not constitute representative conditions for the purpose of a performance test.

3) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

A) Sampling ports adequate for the test methods specified in subsection (c)(1).

B) Safe sampling platform(s).

C) Safe access to sampling platform(s).

D) Utilities for sampling and testing equipment.

4) For the purpose of making compliance determinations, the time-weighted average of the results of the three runs must apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions or other circumstances beyond the owner or operator's control, compliance may, upon the Agency's approval, be determined using the average of the results of the two other runs.

d) To show that a process vent associated with a hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation is not subject to the requirements of this Subpart, the owner or operator shall make an initial determination that the time-weighted, annual

average total organic concentration of the waste managed by the waste management unit is less than 10 ppmw using one of the following two methods:

1) Direct measurement of the organic concentration of the waste using the following procedures:

   A) The owner or operator shall take a minimum of four grab samples of waste for each wastestream managed in the affected unit under process conditions expected to cause the maximum waste organic concentration.

   B) For waste generated onsite, the grab samples must be collected at a point before the waste is exposed to the atmosphere such as in an enclosed pipe or other closed system that is used to transfer the waste after generation to the first affected distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation. For waste generated offsite, the grab samples must be collected at the inlet to the first waste management unit that receives the waste provided the waste has been transferred to the facility in a closed system such as a tank truck and the waste is not diluted or mixed with other waste.

   C) Each sample must be analyzed and the total organic concentration of the sample must be computed using Method 9060 or 8240 of SW-846 (incorporated by reference under 35 Ill. Adm. Code 720.111.

   D) The arithmetic mean of the results of the analyses of the four samples apply for each wastestream managed in the unit in determining the time-weighted, annual average total organic concentration of the waste. The time-weighted average is to be calculated using the annual quantity of each waste stream processed and the mean organic concentration of each wastestream managed in the unit.

2) Using knowledge of the waste to determine that its total organic concentration is less that 10 ppmw. Documentation of the waste determination is required. Examples of documentation that must be used to support a determination under this subsection include:

A) Production process information documenting that no organic compounds are used.

B) Information that the waste is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to generate a wastestream having a total organic content less than 10 ppmw, or

C) Prior speciation analysis results on the same wastestream where it is documented that no process changes have occurred since that analysis that could affect the waste total organic concentration.

e) The determination that distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations which manage hazardous wastes with time-weighted, annual average total organic concentrations less than 10 ppmw must be made as follows:

1) By the effective date that the facility becomes subject to the provisions of this Subpart or by the date when the waste is first managed in a waste management unit, whichever is later; and

2) For continuously generated waste, annually; or

3) Whenever there is a change in the waste being managed or a change in the process that generates or treats the waste.

f) When an owner or operator and the Agency do not agree on whether a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation manages a hazardous waste with organic concentrations of at least 10 ppmw based on knowledge of the waste, the procedures in Method 8240 in SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111, must be used to resolve the dispute.

Source: Added at 15 Ill. Reg. , effective

Section 725.935 Recordkeeping Requirements

a) Compliance Required.

1) Each owner or operator subject to the provisions

of this Subpart shall comply with the recordkeeping requirements of this Section.

2) An owner or operator of more than one hazardous waste management unit subject to the provisions of this Subpart may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.

b) Owners and operators shall record the following information in the facility operating record:

1) For facilities that comply with the provisions of Section 725.933(a)(2), an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The schedule must also include a rationale of why the installation cannot be completed at an earlier date. The implementation schedule must be in the facility operating record by the effective date that the facility becomes subject to the provisions of this Subpart.

2) Up-to-date documentation of compliance with the process vent standards in Section 725.932, including:

A) Information and data identifying all affected process vents, annual throughput and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility (i.e., the total emissions for all affected vents at the facility), and the approximate location within the facility of each affected unit (e.g., identify the hazardous waste management units on a facility plot plan).

B) Information and data supporting determination of vent emissions and emission reductions achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, determinations of vent emissions and emission reductions must be made using operating parameter values (e.g., temperatures, flow rates, or vent stream organic compounds and concentrations) that represent the conditions that result in maximum organic emissions, such as when the waste management unit is

operating at the highest load or capacity level reasonably expected to occur. If the owner or operator takes any action (e.g., managing a waste of different composition or increasing operating hours of affected waste management units) that would result in an increase in total organic emissions from affected process vents at the facility, then a new determination is required.

3) Where an owner or operator chooses to use test date to determine the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan. The test plan must include:

A) A description of how it is determined that the planned test is going to be conducted when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. This must include the estimated or design flow rate and organic content of each vent stream and define the acceptable operating ranges of key process and control device parameters during the test program.

B) A detailed engineering description of the closed-vent system and control device including:

i) Manufacturer's name and model number of control device.

ii) Type of control device.

iii) Dimensions of the control device.

iv) Capacity.

v) Construction materials.

C) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.

4) Documentation of compliance with Section 725.933 must include the following information:

A) A list of all information references and sources used in preparing the documentation.

B) Records including the dates of each compliance test required by Section 725.933(j).

C) If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of APTI Course 415 (incorporated by reference in 35 Ill. Adm. Code 720.111) or other engineering texts, approved by the Agency, that present basic control device design information. Documentation provided by the control device manufacturer or vendor that describes the control device design in accordance with subsections (b)(4)(C)(i) through (vii) may be used to comply with this requirement. The design analysis must address the vent stream characteristics and control device operation parameters as specified below.

i) For a thermal vapor incinerator, the design analysis must consider the vent stream composition, constituent concentrations and flow rate. The design analysis must also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.

ii) For a catalytic vapor incinerator, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also establish the design minimum and average temperatures across the catalyst bed inlet and outlet.

iii) For a boiler or process heater, the design analysis must consider the vent stream composition, constituent concentrations and flow rate. The design analysis must also establish the design minimum and average flame zone temperatures, combustion zone residence time and description of method and location where the vent stream is

introduced into the combustion zone.

iv) For a flare, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also consider the requirements specified in Section 725.933(d).

v) For a condenser, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis must also establish the design outlet organic compound concentration level, design average temperature of the condenser exhaust vent stream and design average temperatures of the coolant fluid at the condenser inlet and outlet.

vi) For a carbon adsorption system such as a fixed-bed adsorber that regenerates the carbon bed directly onsite in the control device, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis must also establish the design exhaust vent stream organic compound concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling/drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time and design service life of carbon.

vii) For a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis must also establish the design outlet organic concentration level, capacity of carbon bed, type and

working capacity of activated carbon used for carbon bed and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

D) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

E) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 percent or greater unless the total organic concentration limit of Section 725.932(a) is achieved at an efficiency less than 95 weight percent or the total organic emission limits of Section 725.932(a) for affected process vents at the facility are attained by a control device involving vapor recovery at an efficiency less than 95 weight percent. A statement provided by the control device manufacturer or vendor certifying that the control equipment meets the design specifications may be used to comply with this requirement.

F) If performance tests are used to demonstrate compliance, all test results.

c) Design documentation and monitoring operating and inspection information for each closed-vent system and control device required to comply with the provisions of this Part must be recorded and kept up-to-date in the facility operating record. The information must include:

1) Description and date of each modification that is made to the closed-vent system or control device design.

2) Identification of operating parameter, description of monitoring device, and diagram of monitoring sensor location or locations used to comply with Section 725.933(f)(1) and (2).

3) Monitoring, operating and inspection information

required by Section 725.933(f) through (k).

4) Date, time and duration of each period that occurs while the control device is operating when any monitored parameter exceeds the value established in the control device design analysis as specified below:

A) For a thermal vapor incinerator designed to operate with a minimum residence time of 0.50 second at a minimum temperature of 760 C, any period when the combustion temperature is below 760 C.

B) For a thermal vapor incinerator designed to operate with an organic emission reduction efficiency of 95 percent or greater, any period when the combustion zone temperature is more than 28 C below the design average combustion zone temperature established as a requirement of subsection (b)(4)(C)(i).

C) For a catalytic vapor incinerator, any period when:

i) Temperature of the vent stream at the catalyst bed inlet is more than 28 C below the average temperature of the inlet vent stream established as a requirement of subsection (b)(4)(C)(ii); or

ii) Temperature difference across the catalyst bed is less than 80 percent of the design average temperature difference established as a requirement of subsection (b)(4)(C)(ii).

D) For a boiler or process heater, any period when:

i) Flame zone temperature is more than 28 C below the design average flame zone temperature established as a requirement of subsection (b)(4)(C)(iii); or

ii) Position changes where the vent stream is introduced to the combustion zone from the location established as a requirement of subsection (b)(4)(C)(iii).

E) For a flare, period when the pilot flame is

not ignited.

F) For a condenser that complies with Section 725.933(f)(2)(F)(i), any period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the condenser are more than 20 percent greater than the design outlet organic compound concentration level established as a requirement of subsection (b)(4)(C)(v).

G) For a condenser that complies with Section 725.933(f)(2)(F)(ii), any period when:

i) Temperature of the exhaust vent stream from the condenser is more than 6 C above the design average exhaust vent stream temperature established as a requirement of subsection (b)(4)(C)(v).

ii) Temperature of the coolant fluid exiting the condenser is more than 6 C above the design average coolant fluid temperature at the condenser outlet established as a requirement of subsection (b)(4)(C)(v).

H) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and complies with Section 725.933(f)(2)(G)(i), any period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the carbon bed are more than 20 percent greater than the design exhaust vent stream organic compound concentration level established as a requirement of subsection (b)(4)(C)(vi).

I) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and complies with Section 725.933(f)(2)(G)(ii), any period when the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time established as a requirement of subsection (b)(4)(C)(vi).

5) Explanation for each period recorded under subsection (c)(4) of the cause for control device

operating parameter exceeding the design value and the measures implemented to correct the control device operation.

6) For carbon adsorption systems operated subject to requirements specified in Section 725.933(g) or (h)(2), any date when existing carbon in the control device is replaced with fresh carbon.

7) For carbon adsorption systems operated subject to requirements specified in Section 725.933(h)(1), a log that records:

A) Date and time when control device is monitored for carbon breakthrough and the monitoring device reading.

B) Date when existing carbon in the control device is replaced with fresh carbon.

8) Date of each control device startup and shutdown.

d) Records of the monitoring, operating and inspection information required by subsections (c)(3) through (8) need be kept only 3 years.

e) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser or carbon adsorption system, monitoring and inspection information indicating proper operation and maintenance of the control device must be recorded in the facility operating record.

f) Up-to-date information and data used to determine whether or not a process vent is subject to the requirements in Section 725.932, including supporting documentation as required by Section 725.934(d)(2), when application of the knowledge of the nature of the hazardous wastestream or the process by which it was produced is used, must be recorded in a log that is kept in the facility operating record.

Source: Added at 15 Ill. Reg. , effective

SUBPART BB: AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

Section 725.950 Applicability

a) The regulations in this Subpart apply to owners and

operators of facilities that treat, store, or dispose of hazardous wastes (except as provided in Section 725.101).

b) Except as provided in Section 725.964(j), this Subpart applies to equipment that contains or contacts hazardous wastes with organic concentrations of at least 10 percent by weight that are managed in:

1) Units that are subject to the RCRA permitting requirements of 35 Ill. Adm. Code 703, or

2) Hazardous waste recycling units that are located on hazardous waste management facilities otherwise subject to the permitting requirements of 35 Ill. Adm. Code 703.

c) Each piece of equipment to which this Subpart applies must be marked in such a manner that it can be distinguished readily from other pieces of equipment.

d) Equipment that is in vacuum service is excluded from the requirements of Sections 725.952 to 725.960, if it is identified as required in Section 725.964(g)(5).

BOARD NOTE: The requirements of Sections 725.952 through 725.964 apply to equipment associated with hazardous waste recycling units previously exempt under 35 Ill. Adm. Code 721.106(c)(1). Other exemptions under 35 Ill. Adm. Code 721.104, 722.134 and 725.101(e) are not affected by these requirements.

e) Agency decisions pursuant to this Part must be made in writing, are in the nature of permit decisions pursuant to Section 39 of the Environmental Protection Act and may be appealed to the Board pursuant to 35 Ill. Adm. Code 105.

Source: Added at 15 Ill. Reg. , effective

Section 725.951 Definitions

As used in this Subpart, all terms have the meaning given them in Section 725.931, the Resource Conservation and Recovery Act and 35 Ill. Adm. Code 720 through 726.

Source: Added at 15 Ill. Reg. , effective

Section 725.952 Standards: Pumps in Light Liquid Service

a) Monitoring

1) Each pump in light liquid service must be monitored monthly to detect leaks by the methods specified in Section 725.963(b), except as provided in subsections (d), (e) and (f).

2) Each pump in light liquid service must be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

b) Leaks

1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

2) If there are indications of liquids dripping from the pump seal, a leak is detected.

c) Repairs

1) When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 725.959.

2) A first attempt at repair (e.g., tightening the packing gland) must be made no later than 5 calendar days after each leak is detected.

d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of subsection (a), provided the following requirements are met:

1) Each dual mechanical seal system must be:

A) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressures; or

B) Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section 725.960; or

C) Equipped with a system that purges the barrier fluid into a hazardous wastestream with no detectable emissions to the

atmosphere.

2) The barrier fluid system must not be a hazardous waste with organic concentrations 10 percent or greater by weight.

3) Each barrier fluid system must be equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

4) Each pump must be checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

5) Alarms

A) Each sensor as described in subsection (d)(3) must be checked daily or be equipped with an audible alarm that must be checked monthly to ensure that it is functioning properly.

B) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

6) Leaks

A) If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in subsection (d)(5)(B), a leak is detected.

B) When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 725.959.

C) A first attempt at repair (e.g., relapping the seal) must be made no later than 5 calendar days after each leak is detected.

e) Any pump that is designated, as described in Section 725.964(g)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of subsections (a), (c) and (d), if the pump meets the following requirements:

1) Must have no externally actuated shaft penetrating the pump housing.

2) Must operate with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in Section 725.963(c).

3) Must be tested for compliance with subsection (a)(2) initially upon designation, annually and at other times as specified by the Agency pursuant to Section 725.950(e).

f) If any pump is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of Section 725.960, it is exempt from the requirements of subsections (a) through (e).

Source: Added at 15 Ill. Reg. , effective

Section 725.953 Standards: Compressors

a) Each compressor must be equipped with a seal system that includes a barrier fluid system and that prevents leakage of total organic emissions to the atmosphere, except as provided in subsections (h) and (i).

b) Each compressor seal system as required in subsection (a) must be:

1) Operated with the barrier fluid at a pressure that is at all times greater than the compressor stuffing box pressure; or

2) Equipped with a barrier fluid system that is connected by a closed-vent system to a control device that complies with the requirements of Section 725.960; or

3) Equipped with a system that purges the barrier fluid into a hazardous wastestream with no detectable emissions to atmosphere.

c) The barrier fluid must not be a hazardous waste with organic concentrations 10 percent or greater by weight.

d) Each barrier fluid system as described in subsections (a) through (c) must be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

e) 1) Each sensor as required in subsection (d) must be checked daily or must be equipped with an audible alarm that must be checked monthly to ensure that it is functioning properly unless the compressor is located within the boundary of an unmanned plant site, in which case the sensor must be checked daily.

2) The owner or operator shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

f) If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined under subsection (e)(2), a leak is detected.

g) Repairs

1) When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 725.959.

2) A first attempt at repair (e.g., tightening the packing gland) must be made no later than 5 calendar days after each leak is detected.

h) A compressor is exempt from the requirements of subsections (a) and (b) if it is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal to a control device that complies with the requirements of Section 725.960, except as provided in subsection (i).

i) Any compressor that is designated, as described in Section 725.964(g)(2), for no detectable emission as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of subsections (a) through (h) if the compressor:

1) Is determined to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Section 725.963(c).

2) Is tested for compliance with subsection (i)(1) initially upon designation, annually and other times as specified by the Agency pursuant to Section 725.950(e).

Source: Added at 15 Ill. Reg. , effective

Section 725.954 Standards: Pressure Relief Devices in Gas/Vapor Service

a) Except during pressure releases, each pressure relief device in gas/vapor service must be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background as measured by the method specified in Section 725.963(c).

b) Actions following pressure release.

1) After each pressure release, the pressure relief device must be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in Section 725.959.

2) No later than 5 calendar days after the pressure release, the pressure relief device must be monitored to confirm the condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Section 725.963(c).

c) Any pressure relief device that is equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in Section 725.960 is exempt from the requirements of subsections (a) and (b).

Source: Added at 15 Ill. Reg. , effective

Section 725.955 Standards: Sampling Connecting Systems

a) Each sampling connection system must be equipped with a closed purge system or closed-vent system.

b) Each closed-purge system or closed-vent system as required in subsection (a) must:

1) Return the purged hazardous waste stream directly to the hazardous waste management process line with no detectable emissions to atmosphere; or

2) Collect and recycle the purged hazardous waste stream with no detectable emissions to atmosphere; or

3) Be designed and operated to capture and transport all the purged hazardous wastestream to a control device that complies with the requirements of Section 725.960.

c) In situ sampling systems are exempt from the requirements of subsections (a) and (b).

Source: Added at 15 Ill. Reg. , effective

Section 725.956 Standards: Open-ended Valves or Lines

a) Equipment.

1) Each open-ended valve or line must be equipped with a cap, blind flange, plug or a second valve.

2) The cap, blind flange, plug or second valve must seal the open end at all times except during operations requiring hazardous wastestream flow through the open-ended valve or line.

b) Each open-ended valve or line equipped with a second valve must be operated in a manner such that the valve on the hazardous wastestream end is closed before the second valve is closed.

c) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but must comply with subsection (a) at all other times.

Source: Added at 15 Ill. Reg. , effective

Section 725.957 Standards: Valves in Gas/Vapor or Light Liquid Service

a) Each valve in gas/vapor or light liquid service must be monitored monthly to detect leaks by the methods specified in Section 725.963(b) and must comply with subsections (b) through (e), except as provided in subsections (f), (g) and (h), and in Section 725.961 and 725.962.

b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

c) Monitoring Frequency

1) Any valve for which a leak is not detected for two successive months must be monitored the first month of every succeeding quarter, beginning with the next quarter, until a leak is detected.

2) If a leak is detected, the valve must be monitored monthly until a leak is not detected for two successive months,

d) 1) When a leak is detected, it must be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in Section 725.959.

2) A first attempt at repair must be made no later than 5 calendar days after each leak is detected.

e) First attempts at repair include, but are not limited to the following best practices where practicable:

1) Tightening of bonnet bolts.

2) Replacement of bonnet bolts.

3) Tightening of packing gland nuts.

4) Injection of lubricant into lubricated packing.

f) Any valve that is designated, as described in Section 725.964(g)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of subsection (a) if the valve:

1) Has no external actuating mechanism in contact with the hazardous wastestream.

2) Is operated with emissions less than 500 ppm above background as determined by the method specified in Section 725.963(c).

3) Is tested for compliance with subsection (f)(2) initially upon designation, annually, and at other times as specified by the Agency pursuant to Section 725.950(e).

g) Any valve that is designated, as described in Section 725.964(h)(1), as an unsafe-to-monitor valve is exempt from the requirements of subsection (a), if:

1) The owner or operator of the valve determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with subsection (a).

2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

h) Any valve that is designated, as described in Section 725.964(h)(2), as a difficult-to-monitor valve is exempt from the requirements of subsection (a), if:

1) The owner or operator of the valve determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface;

2) The hazardous waste management unit within which the valve is located was in operation before June 21, 1990; and

3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

Source: Added at 15 Ill. Reg. , effective

Section 725.958 Standards: Pumps, Valves, Pressure Relief Devices, Flanges and other Connectors

a) Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service and flanges and other connectors must be monitored within 5 days by the method specified in Section 725.963(b), if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method.

b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

c) Repairs

1) When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 725.959.

2) The first attempt at repair must be made no later than 5 calendar days after each leak is detected.

d) First attempts at repair include, but are not limited to, the best practices described under Section 725.957(e).

Source: Added at 15 Ill. Reg. , effective

Section 725.959 Standards: Delay of Repair

a) Delay of repair of equipment for which leaks have been detected is allowed if the repair is technically infeasible without a hazardous waste management unit shutdown. In such a case, repair of this equipment must occur before the end of the next hazardous waste management unit shutdown.

b) Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the hazardous waste management unit and that does not continue to contain or contact hazardous waste with organic concentrations at least 10 percent by weight.

c) Delay of repair for valves is allowed if:

1) The owner or operator determines that emissions of purged material resulting from immediate repair are greater than the emissions likely to result from delay of repair.

2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with Section 725.960.

d) Delay of repair for pumps is allowed if:

1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system.

2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

e) Delay of repair beyond a hazardous waste management unit shutdown is allowed for a valve if valve assembly replacement is necessary during the hazardous waste management unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted.

Delay of repair beyond the next hazardous waste management unit shutdown is not allowed unless the next hazardous waste management unit shutdown occurs sooner than 6 months after the first hazardous waste management unit shutdown.

Source: Added at 15 Ill. Reg. , effective

Section 725.960 Standards: Closed-vent Systems and Control Devices

Owners or operators of closed-vent systems and control devices shall comply with the provisions of Section 725.933.

Source: Added at 15 Ill. Reg. , effective

Section 725.961 Percent Leakage Alternative for Valves

a) An owner or operator subject to the requirements of Section 725.957 may elect to have all valves within a hazardous waste management unit comply with an alternative standard which allows no greater than 2 percent of the valves to leak.

b) The following requirements must be met if an owner or operator decides to comply with the alternative standard of allowing 2 percent of valves to leak:

1) An owner or operator shall notify the Agency that the owner or operator has elected to comply with the requirements of this Section.

2) A performance test as specified in subsection (c) must be conducted initially upon designation, annually and other times as specified by the Agency pursuant to Section 725.950(e).

3) If a valve leak is detected it must be repaired in accordance with Section 725.957(d) and (e).

c) Performance tests must be conducted in the following manner:

1) All valves subject to the requirements in Section 725.957 within the hazardous waste management unit must be monitored within 1 week by the methods specified in Section 725.963(b).

2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

3) The leak percentage must be determined by dividing the number of valves subject to the requirements in Section 725.957 for which leaks are detected by the total number of valves subject to the requirements in Section 725.957 within the hazardous waste management unit.

d) If an owner or operator decides no longer to comply with this Section, the owner or operator shall notify the Agency in writing that the work practice standard described in Section 725.957(a) through (e) will be followed.

Source: Added at 15 Ill. Reg. , effective

Section 725.962 Skip Period Alternative for Valves

a) Election

1) An owner or operator subject to the requirements of Section 725.957 may elect for all valves within a hazardous waste management unit to comply with one of the alternative work practices specified in subsections (b)(2) and (3).

2) An owner or operator shall notify the Agency before implementing one of the alternative work practices.

b) Reduced Monitoring

1) An owner or operator shall comply with the requirements for valves, as described in Section 725.957, except as described in subsection (b)(2) and (3).

2) After two consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 2 percent, an owner or operator may begin to skip one of the quarterly leak detection periods for the valves subject to the requirements in Section 725.957.

3) After five consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than 2 percent, an owner or operator may begin to skip three of the quarterly leak detection periods for the valves subject to the requirements in Section 725.957.

4) If the percentage of valves leaking is greater than 2 percent, the owner or operator shall monitor monthly in compliance with the requirements in Section 725.957, but may again elect to use this Section after meeting the requirements of Section 725.957(c)(1).

Source: Added at 15 Ill. Reg. , effective

Section 725.963 Test Methods and Procedures

a) Each owner or operator subject to the provisions of this Subpart shall comply with the test methods and procedures requirements provided in this Section.

b) Leak detection monitoring, as required in Sections 725.952 through 725.962, must comply with the following requirements:

1) Monitoring must comply with Reference Method 21 in 40 CFR 60, incorporated by reference in 35 Ill. Adm. Code 720.111.

2) The detection instrument must meet the performance criteria of Reference Method 21.

3) The instrument must be calibrated before use on each day of its use by the procedures specified in Reference Method 21.

4) Calibration gases must be:

A) Zero air (less than 10 ppm of hydrocarbon in air).

B) A mixture of methane or n-hexane and air at a concentration of approximately, but less than 10,000 ppm methane or n-hexane.

5) The instrument probe must be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

c) When equipment is tested for compliance with no detectable emissions, as required in Sections 725.952(e), 725.953(i), 725.954 and 725.957(f), the test must comply with the following requirements:

1) The requirements of subsections (b)(1) through (4) apply.

2) The background level must be determined as set forth in Reference Method 21.

3) The instrument probe must be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

4) This arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

d) In accordance with the waste analysis plan required by Section 725.113(b), an owner or operator of a facility shall determine, for each piece of equipment, whether the equipment contains or contacts a hazardous waste with organic concentration that equals or exceeds 10 percent by weight using the following:

1) Methods described in ASTM Methods D 2267, E 169, E 168, E 260 incorporated by reference in 35 Ill. Adm. Code 720.111;

2) Method 9060 or 8240 of SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111; or

3) Application of the knowledge of the nature of the hazardous wastestream or the process by which it was produced. Documentation of a waste determination by knowledge is required. Examples of documentation that must be used to support a determination under this provision include production process information documenting that no organic compounds are used, information that the waste is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to have a total organic content less than 10 percent, or prior speciation analysis results on the same wastestream where it is also documented that no process changes have occurred since that analysis that could affect the waste total organic concentration.

e) If an owner or operator determines that a piece of equipment contains or contacts a hazardous waste with organic concentrations at least 10 percent by weight, the determination can be revised only after following the procedures in subsection (d)(1) or (2).

f) When an owner or operator and the Agency do not agree on whether a piece of equipment contains or contacts a hazardous waste with organic concentrations at least 10 percent by weight, the procedures in subsection (d)(1) or (2) must be used to resolve the dispute.

g) Samples used in determining the percent organic content must be representative of the highest total organic content hazardous waste that is expected to be contained in or contact the equipment.

h) To determine if pumps or valves are in light liquid service, the vapor pressures of constituents must either be obtained from standard reference texts or be determined by ASTM D-2879 incorporated by reference in 35 Ill. Adm. Code 720.111.

i) Performance tests to determine if a control device achieves 95 weight percent organic emission reduction must comply with the procedures of Section 725.934(c)(1) through (4).

Source: Added at 15 Ill. Reg. , effective

Section 725.964 Recordkeeping Requirements

a) Lumping Units

1) Each owner or operator subject to the provisions of this Subpart shall comply with the recordkeeping requirements of this Section.

2) An owner or operator of more than one hazardous waste management unit subject to the provisions of this Subpart may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.

b) Owners and operators shall record the following information in the facility operating record:

1) For each piece of equipment to which this Subpart applies:

A) Equipment identification number and hazardous waste management unit identification.

B) Approximate locations within the facility (e.g., identify the hazardous waste

management unit on a facility plot plan).

C) Type of equipment (e.g., a pump or pipeline valve).

D) Percent-by-weight total organics in the hazardous wastestream at the equipment.

E) Hazardous waste state at the equipment (e.g. gas/vapor or liquid).

F) Method of compliance with the standard (e.g. "monthly leak detection and repair" or "equipped with dual mechanical seals").

2) for facilities than comply with the provisions of Section 725.933(a)(2), an implementation schedule as specified in that Section.

3) Where an owner or operator chooses to use test data to demonstrate the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan as specified in Section 725.935(b)(3).

4) Documentation of compliance with Section 725.960, including the detailed design documentation or performance test results specified in Section 725.935(b)(4).

c) When each leak is detected as specified in Sections 725.952, 725.953, 725.957 or 725.958, the following requirements apply:

1) A weatherproof and readily visible identification, marked with the equipment identification number, the date evidence of a potential leak was found in accordance with Section 725.958(a), and the date the leak was detected, must be attached to the leaking equipment.

2) The identification on equipment except on a valve, may be removed after it has been repaired.

3) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in Section 725.957(c) and no leak has been detected during those 2 months.

d) When each leak is detected as specified in Sections 725.952, 725.953, 725.957 or 725.958, the following information must be recorded in an inspection log and

must be kept in the facility operating record:

1) The instrument and operator identification numbers and the equipment identification number.

2) The date evidence of a potential leak was found in accordance with Section 725.958(a).

3) The date the leak was detected and the dates of each attempt to repair the leak.

4) Repair methods applied in each attempt to repair the leak.

5) "Above 10,000", if the maximum instrument reading measured by the methods specified in Section 725.963(b) after each repair attempt is equal to or greater than 10,000 ppm.

6) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

7) Documentation supporting the delay of repair of a valve in compliance with Section 725.959(c).

8) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a hazardous waste management unit shutdown.

9) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.

10) The date of successful repair of the leak.

e) Design documentation and monitoring, operating and inspection information for each closed-vent system and control device required to comply with the provisions of Section 725.960 must be recorded and kept up-to-date in the facility operating record as specified in Section 725.935(c)(1) and (2), and monitoring, operating and inspection information in Section 725.935(c)(3) through (8).

f) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, monitoring and inspection information indicating proper operation and maintenance of the control device must be recorded in the facility operating record.

g) The following information pertaining to all equipment subject to the requirements in Sections 725.952 through 725.960 must be recorded in a log that is kept in the facility operating record:

1) A list of identification numbers for equipment (except welded fittings) subject to the requirements of this Subpart.

2) List of Equipment

A) A list of identification numbers for equipment that the owner or operator elects to designate for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, under the provisions of Sections 725.952(e), 725.953(i) and 725.957(f).

B) The designation of this equipment as subject to the requirements of Sections 725.952(e), 725.953(i) or 725.957(f) must be signed by the owner or operator.

3) A list of equipment identification numbers for pressure relief devices required to comply with Section 725.954(a).

4) Compliance tests.

A) The dates of each compliance test required in Sections 725.952(e), 725.953(i), 725.954 and 725.957(f).

B) The background level measured during each compliance test.

C) The maximum instrument reading measured at the equipment during each compliance test.

5) A list of identification numbers for equipment in vacuum service.

h) The following information pertaining to all valves subject to the requirements of Section 725.957(g) and (h) must be recorded in a log that is kept in the facility operating record:

1) A list of identification numbers for valves that are designated as unsafe to monitor, an explanation for each valve stating why the valve

is unsafe to monitor, and the plan for monitoring each valve.

2) A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve.

i) The following information must be recorded in the facility operating record for valves complying with Section 725.962:

1) A schedule of monitoring.

2) The percent of valves found leaking during each monitoring period.

j) The following information must be recorded in a log that is kept in the facility operating record:

1) Criteria required in Section 725.952(d)(5)(B) and 725.953(e)(2) and an explanation of the criteria.

2) Any changes to these criteria and the reasons for the changes.

k) The following information must be recorded in a log that is kept in the facility operating record for use in determining exemptions as provided in Section 725.950 and other specific Subparts:

1) An analysis determining the design capacity of the hazardous waste management unit.

2) A statement listing the hazardous waste influent to and effluent from each hazardous waste management unit subject to the requirements in Sections 725.960 and an analysis determining whether these hazardous wastes are heavy liquids.

3) An up-to-date analysis and the supporting information and data used to determine whether or not equipment is subject to the requirements in Sections 725.952 through 725.960. The record must include supporting documentation as required by Section 725.963(d)(3) when application of the knowledge of the nature of the hazardous wastestream or the process by which it was produced is used. If the owner or operator takes any action (e.g., changing the process that produced the waste) that could result in an

increase in the total organic content of the waste contained in or contacted by equipment determined not to be subject to the requirements in Sections 725.952 through 725.960, then a new determination is required.

l) Records of the equipment leak information required by subsection (d) and the operating information required by subsection (e) need be kept only 3 years.

m) The owner or operator of any facility that is subject to this Subpart and to regulations at 40 CFR 60, Subpart VV, or 40 CFR 61, Subpart V, incorporated by reference in 35 Ill. Adm. Code 720.111, may elect to determine compliance with this Subpart by documentation either pursuant to Section 725.964, or pursuant to those provisions of 40 CFR 60 or 61, to the extent that the documentation under the regulation at 40 CFR 60 or 61 duplicates the documentation required under this Subpart. The documentation under the regulation at 40 CFR 60 or 61 must be kept with or made readily available with the facility operating record.

Source: Added at 15 Ill. Reg. , effective

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

PART 726
STANDARDS FOR THE MANAGEMENT OF SPECIFIC HAZARDOUS WASTE AND SPECIFIC TYPES OF HAZARDOUS WASTE MANAGEMENT FACILITIES

SUBPART C: RECYCLABLE MATERIALS USED IN A MANNER CONSTITUTING DISPOSAL

Section
726.120 Applicability
726.121 Standards applicable to generators and transporters of materials used in a manner that constitutes disposal
726.122 Standards applicable to storers, who are not the ultimate users, of materials that are to be used in a manner that constitutes disposal
726.123 Standards applicable to users of materials that are used in a manner that constitutes disposal

SUBPART D: HAZARDOUS WASTE BURNED FOR ENERGY RECOVERY

Section
726.130 Applicability
726.131 Prohibitions
726.132 Standards applicable to generators of hazardous waste fuel
726.133 Standards applicable to transporters of hazardous waste fuel
726.134 Standards applicable to marketers of hazardous waste fuel
726.135 Standards applicable to burners of hazardous waste fuel
726.136 Conditional exemption for spent materials and by-products exhibiting a characteristic of hazardous waste (Repealed)

SUBPART E: USED OIL BURNED FOR ENERGY RECOVERY

Section
726.140 Applicability
726.141 Prohibitions
726.142 Standards applicable to generators of used oil burned for energy recovery
726.143 Standards applicable to marketers of used oil burned for energy recovery
726.144 Standards applicable to burners of used oil burned for energy recovery

SUBPART F: RECYCLABLE MATERIALS UTILIZED FOR PRECIOUS METAL RECOVERY

Section
726.170 Applicability and requirements

SUBPART G: SPENT LEAD-ACID BATTERIES BEING RECLAIMED

Section
726.180 Applicability and requirements

AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1989, ch. 111 1/2, pars. 1022.4 and 1027).

SOURCE: Adopted in R85-22 at 10 Ill. Reg. 1162, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 14156, effective August 12, 1986; amended in R87-26 at 12 Ill. Reg. 2900, effective January 15, 1988; amended in R89-1 at 13 Ill. Reg. 18606, effective November 13, 1989; amended in R90-2 at 14 Ill. Reg. 14533, effective August 22, 1990; amended in R90-11 at 15 Ill. Reg. , effective

SUBPART D: HAZARDOUS WASTE BURNED FOR ENERGY RECOVERY

Section 726.136 Conditional exemption for spent materials and by-prodicts exhibiting a characteristic of hazardous waste (Repealed)

~~a) Except as provided in paragraph (b), hazardous waste fuels that are spent materials and by-products and that are hazardous only because they exhibit a characteristic of hazardous waste are not subject to the notification requirements of Section 3010 of the Resource Conservation and Recovery Act, the generator, transporter or storage requirements of 35 Ill. Adm. Code 722 through 725, or 35 Ill. Adm. Code 702, 703 or 705.~~

~~b) This exemption does not apply when the spent material or by-product is stored in a surface impounndment prior to burning.~~

Source: Repealed at 15 Ill. Reg. , effective

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

PART 728
LAND DISPOSAL RESTRICTIONS

SUBPART A: GENERAL

Section
728.101 Purpose, Scope and Applicability
728.102 Definitions
728.103 Dilution Prohibited as a Substitute for Treatment
728.104 Treatment Surface Impoundment Exemption
728.105 Procedures for case-by-case Extensions to an Effective Date
728.106 Petitions to Allow Land Disposal of a Waste Prohibited under Subpart C
728.107 Waste Analysis and Recordkeeping
728.108 Landfill and Surface Impoundment Disposal Restrictions
728.109 Special Rules for Characteristic Wastes

SUBPART C: PROHIBITION ON LAND DISPOSAL

Section
728.130 Waste Specific Prohibitions -- Solvent Wastes
728.131 Waste Specific Prohibitions -- Dioxin-Containing Wastes
728.132 Waste Specific Prohibitions -- California List Wastes
728.133 Waste Specific Prohibitions -- First Third Wastes
728.134 Waste Specific Prohibitions -- Second Third Wastes
728.135 Waste Specific Prohibitions -- Third Third Wastes
728.139 Statutory Prohibitions

SUBPART D: TREATMENT STANDARDS

Section
728.140 Applicability of Treatment Standards
728.141 Treatment Standards expressed as Concentrations in Waste Extract
728.142 Treatment Standards expressed as Specified Technologies
728.143 Treatment Standards expressed as Waste Concentrations
728.144 Adjustment of Treatment Standard

SUBPART E: PROHIBITIONS ON STORAGE

Section
728.150 Prohibitions on Storage of Restricted Wastes

Appendix A Toxicity Characteristic Leaching Procedure (TCLP)
Appendix B Treatment Standards (As concentrations in the Treatment Residual Extract)
Appendix C List of Halogenated Organic Compounds
Appendix D Organometallic Lab Packs
Appendix E Organic Lab Packs
Appendix F Technologies to Achieve Deactivation of Characteristics
Appendix G Federal Effective Dates

Appendix H National Capacity LDR Variances for UIC Wastes

Table A Constituent Concentrations in Waste Extract (CCWE)
Table B Constituent Concentrations in Wastes (CCW)
Table C Technology Codes and Description of Technology-Based Standards
Table D Technology-Based Standards by RCRA Waste Code
Table E Standards for Radioactive Mixed Waste

AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1989, ch. 111 1/2, pars. 1022.4 and 1027).

SOURCE: Adopted in R87-5 at 11 Ill. Reg. 19354, effective November 12, 1987; amended in R87-39 at 12 Ill. Reg. 13046, effective July 29, 1988; amended in R89-1 at 13 Ill. Reg. 18403, effective November 13, 1989; amended in R89-9 at 14 Ill. Reg. 6232, effective April 16, 1990; amended in R90-2 at 14 Ill. Reg. 14470, effective August 22, 1990; amended in R90-10 at 14 Ill. Reg. 16508, effective September 25, 1990; amended in R90-11 at 15 Ill. Reg. , effective

SUBPART A: GENERAL

Section 728.101 Purpose, Scope and Applicability

a) This Part identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be land disposed.

b) Except as specifically provided otherwise in this Part or 35 Ill. Adm. Code 721, the requirements of this Part apply to persons who generate or transport hazardous waste and to owners and operators of hazardous waste treatment, storage and disposal facilities.

c) Restricted wastes may continue to be land disposed as follows:

1) Where persons have been granted an extension to the effective date of a prohibition under Subpart C or pursuant to Section 728.105, with respect to those wastes covered by the extension;

2) Where persons have been granted an exemption from a prohibition pursuant to a petition under Section 728.106, with respect to those wastes and units covered by the petition;

3) Wastes that are hazardous only because they

exhibit a hazardous characteristic, and which are otherwise prohibited from land disposal under this Part, are not prohibited from land disposal if the wastes:

A) Are disposed into a nonhazardous or hazardous waste injection well as defined in 35 Ill. Adm. Code 704.106(a); and

B) Do not exhibit any prohibited characteristic of hazardous waste at the point of injection.

~~5) Prior to May 8, 1990, in a landfill or surface impoundment unit where all applicable persons are in compliance with the requirements of Section 728.108, with respect to wastes which are not subject to the treatment standards set forth in Subpart D, and which are not subject to the prohibitions in Section 728.132 or 728.139.~~

d) This Part does not affect the availability of a waiver under Section 121(d)(4) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (42 U.S.C. 9601 et seq).

e) The following hazardous wastes are not subject to any provision of this Part:

1) Wastes generated by small quantity generators of less than 100 kg of non-acute hazardous waste or less than 1 kg of acute hazardous waste per month, as defined in 35 Ill. Adm. Code 721.105;

2) Waste pesticides that a farmer disposes of pursuant to 35 Ill. Adm. Code 722.170;

3) Wastes identified or listed as hazardous after November 8, 1984, for which USEPA has not promulgated land disposal prohibitions or treatment standards.

f) This Part is cumulative with the land disposal restrictions of 35 Ill. Adm. Code 729. The Environmental Protection Agency (Agency) shall not issue a wastestream authorization pursuant to 35 Ill. Adm. Code 709 or Sections 22.6 or 39(h) of the Environmental Protection Act (Ill. Rev. Stat. 1987, ch. 111 1/2, pars. 1022.6 or 1039(h)) unless the waste meets the requirements of this Part as well as 35 Ill. Adm. Code 729.

Source: Amended at 15 Ill. Reg. , effective

Section 728.102 Definitions

~~a)~~ When used in this Part the following terms have the meanings given below~~:~~. All other terms have the meanings given under 35 Ill. Adm. Code 702.110, 720.110, 720.102 or 721.103.

"Agency" means the Illinois Environmental Protection Agency.

"Board" means the Illinois Pollution Control Board.

"CERCLA" means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq.)

"Halogenated organic compounds" or "HOCs" means those compounds having a carbon-halogen bond which are listed under Appendix C.

"Hazardous constituent or constituents" means those constituents listed in 35 Ill. Adm. Code 721.Appendix H.

Inorganic Solid Debris are nonfriable inorganic solids that are incapable of passing through a 9.5 mm standard sieve, and that require cutting, or crushing and grinding, in mechanical sizing equipment prior to stabilization, limited to the following inorganic or metal materials:

Metal slags (either dross or scoria).

Glassified slag.

Glass.

Concrete (excluding cementitious or pozzolanic stabilized hazardous wastes).

Masonry and refractory bricks.

Metal cans, containers, drums or tanks.

Metal nuts, bolts, pipes, pumps, valves, appliances or industrial equipment.

Scrap metal as defined in 35 Ill. Adm. Code 721.101(c)(6).

"Land disposal" means placement in or on the land and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, underground mine or cave, or placement in a concrete vault or bunker intended for disposal purposes.

"Nonwastewaters" are wastes that do not meet the criteria for "wastewaters" in this Section.

"Polychlorinated biphenyls" or "PCBs" are halogenated organic compounds defined in accordance with 40 CFR 761.3, incorporated by reference in 35 Ill. Adm. Code 720.111

"ppm" means parts per million.

"RCRA corrective action" means corrective action taken under 35 Ill. Adm. Code 724.200 or 725.193, 40 CFR 264.100 or 265.93 (1987), or similar regulations in other States with RCRA programs authorized by USEPA pursuant to 40 CFR 271 (1986~~9~~).

"USEPA" means the United States Environmental Protection Agency.

"Wastewaters" are wastes that contain less than 1% by weight total organic carbon (TOC) and less than 1% by weight total suspended solids (TSS), with the following exceptions:

F001, F002, F003, F004, F005 solvent-water mixtures that contain less than 1% by weight TOC or less than 1% by weight total F001, F002, F003, F004, F005 solvent constituents listed in Table A.

K011, K013, K014 wastewaters (as generated) that contain less than 5% by weight TOC and less than 1% by weight TSS.

K103 and K104 wastewaters that contain less than 4% by weight TOC and less than 1% by weight TSS.

~~b) All other terms have the meanings given under 35 Ill. Adm. Code 702.110, 720.110, 720.102 or 721.103.~~

Source: Amended at 15 Ill. Reg. , effective

Section 728.103 Dilution Prohibited as a Substitute for Treatment

a) Except as provided in subsection (b), nNo generator, transporter, handler or owner or operator of a treatment, storage or disposal facility shall in any way dilute a restricted waste or the residual from treatment of a restricted waste as a substitute for adequate treatment to achieve compliance with Subpart D, to circumvent the effective date of a prohibition in Subpart C, to otherwise avoid a prohibition in Subpart C.

b) Dilution of wastes that are hazardous only because they exhibit a characteristic in a treatment system which treats wastes subsequently discharged to a water of the State pursuant to an NPDES permit issued under 35 Ill. Adm. Code 309 or which treats wastes for purposes of pretreatment requirements under 35 Ill. Adm. Code 310 is not impermissible dilution for purposes of this Section unless a method has been specified as the treatment standard in Section 728.142.

Source: Amended at 15 Ill. Reg. , effective

Section 728.105 Procedures for case-by-case Extensions to an Effective Date

a) The Board incorporates by reference 40 CFR 268.5 (1989), as amended at 54 Fed. Reg 36970, September 6, 1989, and at 55 Fed. Reg. 23935, June 13, 1990. This Part incorporates no future editions or amendments.

b) Persons may apply to USEPA for extensions of effective dates pursuant to 40 CFR 268.5. Extensions which are granted by USEPA will be deemed extensions of dates specified in the derivative Board rule.

Source: Amended at 15 Ill. Reg. , effective

Section 728.107 Waste Analysis and Recordkeeping

a) Except as specified in Section 728.132 or 728.143, the generator shall test the generator's waste, or test an extract developed using the test method described in Appendix A, or use knowledge of the waste, to determine if the waste is restricted from land disposal under this Part.

1) If a generator determines that the generator is

managing a restricted waste under this Part and determines that the waste does not meet the applicable treatment standards set forth in Subpart D or exceeds the applicable prohibition levels set forth in Section 728.132 or 728.139, with each shipment of waste the generator shall notify the treatment or storage facility in writing of the appropriate treatment standard set forth in Subpart D and any applicable prohibition levels set forth in Section 728.132 or 728.139. The notice must include the following information:

A) USEPA Hazardous Waste Number;

B) The corresponding treatment standards for wastes F001-F005, F039 and wastes prohibited pursuant to Section 728.132 or Section 3004(d) of the Resource Conservation and Recovery Act, referenced in Section 728.139. Treatment standards for all other restricted wastes must either be referenced as above, or by including on the notification the subcategory of the waste, the treatability group(s) of the waste(s), and the Section and subsection where the treatment standards appear. Where the applicable treatment standards are expressed as specified technologies in Section 728.142, the applicable five-letter treatment code found in Table C (e.g., INCIN, WETOX) also must be listed on the notification. ~~and all applicable standards set forth in Section 728.132 or 728.139;~~

C) The manifest number associated with the shipment of waste; and

D) Waste analysis data, where available.

2) If a generator determines that the generator is managing a restricted waste under this Part, and determines that the waste can be land disposed without further treatment, with each shipment of waste the generator shall submit, to the treatment, storage or land disposal facility, a notice and a certification stating that the waste meets the applicable treatment standards set forth in Subpart D and the applicable prohibition levels set forth in Section 728.132 or 728.139.

A) The notice must include the following information:

i) USEPA Hazardous Waste Number;

ii) The corresponding treatment standards for wastes F001-F005, F039 and wastes prohibited pursuant to Section 728.132 or Section 3004(d) of the Resource Conservation and Recovery Act, referenced in Section 728.139. Treatment standards for all other restricted wastes must either be referenced as above, or by including on the notification the subcategory of the waste, the treatability group(s) of the waste(s), and the Section and subsection where the treatment standards appear. Where the applicable treatment standards are expressed as specified technologies in Section 728.142, the applicable five-letter treatment code found in Table C (e.g., INCIN, WETOX) also must be listed on the notification.~~;~~

iii) The manifest number associated with the shipment of waste;

iv) Waste analysis data, where available.

B) The certification must be signed by an authorized representative and must state the following:

> I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 35 Ill. Adm. Code 728.Subpart D and all applicable prohibitions set forth in 35 Ill. Adm. Code 728.132, 728.139 or Section 3004(d) of the Resource Conservation and Recovery Act. I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

3) If a generator's waste is subject to an exemption

from a prohibition on the type of land disposal method utilized for the waste (such as, but not limited to, a case-by-case extension under Section 728.105, an exemption under Section 728.106, an extension under Section 728.101(c)(3) or a nationwide capacity variance under 40 CFR 268.Subpart C (1989), with each shipment of waste, the generator shall submit a notice with the waste to the facility receiving the generator's waste, stating that the waste is not prohibited from land disposal. The notice must include the following information:

A) EPA hazardous waste number:

B) The corresponding treatment standards for wastes F001-F005, F039 and wastes prohibited pursuant to Section 728.132 or Section 3004(d) of the Resource Conservation and Recovery Act, referenced in Section 728.139. Treatment standards for all other restricted wastes must either be referenced as above, or by including on the notification the subcategory of the waste, the treatability group(s) of the waste(s), and the Section and subsection where the treatment standards appear. Where the applicable treatment standards are expressed as specified technologies in Section 728.142, the applicable five-letter treatment code found in Table C (e.g., INCIN, WETOX) also must be listed on the notification. ~~and all applicable prohibitions set forth in Section 728.132 or 728.139;~~

C) The manifest number associated with the shipment of waste;

D) Waste analysis data, where available, and

E) The date the waste is subject to the prohibitions.

4) If a generator ~~determines that the generator~~ is managing a prohibited waste in tanks or containers regulated under 35 Ill. Adm. Code 722.134, and is treating such waste in such tanks or containers to meet applicable treatment standards under Subpart D, the generator shall develop and follow a written waste analysis plan which describes the procedures the generator will carry out to comply with the treatment standards. The plan must be

kept on-site in the generator's records, and the following requirements must be met: ~~that is subject to the prohibitions under Section 728.133(f) (including wastes that are disposed of in disposal units other than landfills or surface impoundments) and is not subject to the prohibitions set forth in Section 728.132, with each shipment of waste, the generator shall notify the treatment storage or disposal facility, in writing, of any applicable prohibitions set forth in Section 728.133(f). The notice must include the following information:~~

~~A) USEPA hazardous waste number;~~

~~B) The applicable prohibitions set forth in Section 728.133(f);~~

~~C) The manifest number associated with the shipment of waste; and~~

~~D) Waste analysis data where available.~~

A) The waste analysis plan must be based on a detailed chemical and physical analysis of a representative sample of the prohibited waste(s) being treated, and contain all information necessary to treat the waste(s) in accordance with the requirements of this Part, including the selected testing frequency.

B) Such plan must be filed with the Agency a minimum of 30 days prior to the treatment activity, with delivery verified.

C) Wastes shipped off-site pursuant to this subsection must comply with the notification requirements of Section 728.107(a)(2).

5) If a generator determines whether the waste is restricted based solely on the generator's knowledge of the waste, the generator shall retain all supporting data used to make this determination on-site in the generator's files. If a generator determines whether the waste is restricted based on testing the waste or an extract developed using the test method described in Appendix A, the generator shall retain all waste analysis data on site in the generator's files.

6) Generators shall retain on-site a copy of all notices, certifications, demonstrations, waste analysis data and other documentation produced pursuant to this Section for at least five years from the date that the waste that is the subject of such documentation was last sent to on-site or off-site treatment storage or disposal. The five year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Agency.

7) If a generator is managing a lab pack that contains wastes identified in Appendix D and wishes to use the alternative treatment standard under Section 728.142, with each shipment of waste the generator shall submit a notice to the treatment facility in accordance with subsection (a)(1). The generator shall also comply with the requirements in subsections (a)(5) and (a)(6), and shall submit the following certification, which must be signed by an authorized representative:

> I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only the wastes specified in 35 Ill. Adm. Code 728.Appendix D or solid wastes not subject to regulation under 35 Ill. Adm. Code 721. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

8) If a generator is managing a lab pack that contains organic wastes specified in Appendix E and wishes to use the alternate treatment standards under Section 728.142, with each shipment of waste the generator shall submit a notice to the treatment facility in accordance with subsection (a)(1). The generator also shall comply with the requirements in subsections (a)(5) and (a)(6), and shall submit the following certification which must be signed by an authorized representative:

> I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste and that the lab pack contains only organic waste specified in 35 Ill. Adm. Code 728.Appendix E

or solid wastes not subject to regulation under 35 Ill. Adm. Code 721. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

9) Small quantity generators with tolling agreements pursuant to 35 Ill. Adm. Code 722.120(e) shall comply with the applicable notification and certification requirements of subsection (a) for the initial shipment of the waste subject to the agreement. Such generators shall retain on-site a copy of the notification and certification, together with the tolling agreement, for at least three years after termination or expiration of the agreement. The three-year record retention period is automatically extended following notification pursuant to Section 31(d) of the Environmental Protection Act, until either any subsequent enforcement action is resolved, or the Agency notifies the generator documents need no be retained.

b) Treatment facilities shall test their wastes according to the frequency specified in their waste analysis plans as required by 35 Ill. Adm. Code 724.113 or 725.113. Such testing must be performed as provided in subsections (b)(1), (b)(2) and (b)(3).

1) For wastes with treatment standards expressed as concentrations in the waste extract (Section 728.141), the owner or operator of the treatment facility shall test the treatment residues or an extract of such residues developed using the test method described in Appendix A to assure that the treatment residues or extract meet the applicable treatment standards.

2) For wastes prohibited under Section 728.132 or 728.139 which are not subject to any treatment standards under Subpart D, the owner or operator of the treatment facility shall test the treatment residues according to the generator testing requirements specified in Section 728.132 to assure that the treatment residues comply with the applicable prohibitions.

3) For wastes with treatment standards expressed as concentrations in the waste (Section 728.143), the owner or operator of the treatment facility shall test the treatment residues (not an extract of such residues) to assure that the treatment

residues meet the applicable treatment standards.

4) A notice must be sent to the land disposal facility which includes the following information:

A) USEPA Hazardous Waste Number;

B) The corresponding treatment standards for wastes F001-F005, F039 and wastes prohibited pursuant to Section 728.132 or Section 3004(d) of the Resource Conservation and Recovery Act, referenced in Section 728.139. Treatment standards for all other restricted wastes must either be referenced as above, or by including on the notification the subcategory of the waste, the treatability group(s) of the waste(s), and the Section and subsection where the treatment standards appear. Where the applicable treatment standards are expressed as specified technologies in Section 728.142, the applicable five-letter treatment code found in Table C (e.g., INCIN, WETOX) also must be listed on the notification. ~~and all applicable prohibitions set forth in Section 728.132 or 728.139~~.

C) The manifest number associated with the shipment of waste; and

D) Waste analysis data, where available.

5) The treatment facility shall submit a certification with each shipment of waste or treatment residue of a restricted waste to the land disposal facility stating that the waste or treatment residue has been treated in compliance with the treatment standards specified in Subpart D and the applicable prohibitions set forth in Section 728.132 or 728.139.

A) For wastes with treatment standards expressed as concentrations in the waste extract or in the waste (Sections 728.141 or 728.143), or for wastes prohibited under Section 728.132 or 728.139 which are not subject to any treatment standards under Subpart D, the certification must be signed by an authorized representative and must state the following:

I certify under penalty of law that I have personally examined and am familiar

with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the performance levels specified in 35 Ill. Adm. Code 728.Subpart D and all applicable prohibitions set forth in 35 Ill. Adm. Code 728.132 or 728.139 or section 3004(d) of the Resource Conservation and Recovery Act without impermissible dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

B) For wastes with treatment standards expressed as technologies (Section 728.142), the certification must be signed by an authorized representative and must state the following:

I certify under penalty of law that the waste has been treated in accordance with the requirements of 35 Ill. Adm. Code 728.142. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

C) For wastes with treatment standards expressed as concentrations in the waste pursuant to Section 728.143, if compliance with the treatment standards in Subpart D is based in part or in whole on the analytical detection limit alternative specified in Section 728.143(c), the certification also must state the following:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by incineration in units

operated in accordance with 35 Ill. Adm. Code 724.Subpart O) or 35 Ill. Adm. Code 725.Subpart O, or by combustion in fuel substitution units operating in accordance with applicable technical requirements, and I have been unable to detect the nonwastewater organic constituents despite having used best good faith efforts to analyze for such constituents. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

6) If the waste or treatment residue will be further managed at a different treatment or storage facility, the treatment, storage or disposal facility sending the waste or treatment residue off-site must comply with the notice and certification requirements applicable to generators under this Section.

~~7) For wastes that are subject to the prohibitions under Section 728.133(f) and are not subject to the prohibitions set forth in Section 728.132, with each shipment of such waste the owner or operator shall notify any subsequent treatment, storage or disposal facility in writing, of any applicable prohibitions in writing, of any applicable prohibitions set forth in Section 728.133(f). The notice must include the following information:~~

~~A) USEPA hazardous waste number;~~

~~B) The applicable prohibitions set forth in Section 728.133(f);~~

~~C) The manifest number associated with the shipment of waste; and~~

~~D) Waste analysis data, where available.~~

7) Where the wastes are recyclable materials used in a manner constituting disposal subject to the provisions of 35 Ill. Adm. Code 726.120(b), regarding treatment standards and prohibition levels, the owner or operator of a treatment facility (i.e. the recycler) is not required to notify the receiving facility pursuant to subsection (b)(4). With each shipment of such wastes the owner or operator of the recycling

facility shall submit a certification described in subsection (b)(5), and a notice which includes the information listed in subsection (b)(4) (except the manifest number) to the Agency. The recycling facility also shall keep records of the name and location of each entity receiving the hazardous waste-derived product.

c) Except where the owner or operator is disposing of any waste that is a recyclable material used in a manner constituting disposal pursuant to 35 Ill. Adm. Code 726.120(b), the ~~The~~ owner or operator of any land disposal facility disposing any waste subject to restrictions under this Part shall:

1) Have copies of the notice and certification specified in subsection (a) or (b), and the certification specified in Section 728.108 if applicable.

2) Test the waste, or an extract of the waste or treatment residue developed using the test method described in Appendix A or using any methods required by generators under Section 728.132, to assure that the wastes or treatment residues are in compliance with the applicable treatment standards set forth in Subpart D and all applicable prohibitions set forth in Sections 728.132 or 728.139. Such testing must be performed according to the frequency specified in the facility's waste analysis plan as required by 35 Ill. Adm. Code 724.113 or 725.113.

3) Where the owner or operator is disposing of any waste that is subject to the prohibitions under Section 728.133(f) but not subject to the prohibitions set forth in Section 728.132, the owner or operator shall ensure that such waste is the subject of a certification according to the requirements of Section 728.108 prior to disposal in a landfill or surface impoundment unit, and that such disposal is in accordance with the requirements of Section 728.105(h)(2). The same requirement applies to any waste that is subject to the prohibitions under Section 728.133(f) and also is subject to the statutory prohibitions in the codified prohibitions in Section 728.139 or Section 728.132

4) Where the owner or operator is disposing of any waste that is a recyclable material used in a manner constituting disposal subject to the

provisions of 35 Ill. Adm. Code 726.120(b), the owner or operator is not subject to subsections (c)(1) through (3) with respect to such waste.

Source: Amended at 15 Ill. Reg. , effective

Section 728.108 Landfill and Surface Impoundment Disposal Restrictions (Repealed)

~~The Board incorporates by reference 40 CFR 268.8 (1989), as amended at 54 Fed. Reg. 36970, September 6, 1989. This Section incorporates no future editions or amendments. Prior to May 8, 1990, wastes which are otherwise prohibited from land disposal under Section 728.133(f) may be disposed in a landfill or surface impoundment which is in compliance with the requirements of 40 CFR 268.5(h)(2), incorporated by reference in Section 728.105, provided the requirements of 40 CFR 268.8 are met.~~

Source: Repealed at 15 Ill. Reg. , effective

Section 728.109 Special Rules for Characteristic Wastes

a) The initial generator of a solid waste shall determine each waste code applicable to the waste in order to determine the applicable treatment standards under Subpart D. For purposes of part 268, the waste will carry a waste code designation for any applicable listing under 35 Ill. Adm. Code 721.Subpart D, and also one or more waste code designations under 35 Ill. Adm. Code 721.Subpart C where the waste exhibits the relevant characteristic.

b) Where a prohibited waste is both listed under 35 Ill. Adm. Code 721.Subpart D and exhibits a characteristic under 35 Ill. Adm. Code 721.Subpart C, the treatment standard for the waste code listed in 35 Ill. Adm. Code 721.Subpart D will operate in lieu of the standard for the waste code under 35 Ill. Adm. Code 721.Subpart C, provided that the treatment standard for the listed waste includes a treatment standard for the constituent that causes the waste to exhibit the characteristic. Otherwise, the waste must meet the treatment standards for all applicable listed and characteristic waste codes.

c) In addition to any applicable standards determined from the initial point of generation, no prohibited waste which exhibits a characteristic under 35 Ill. Adm. Code 721.Subpart C shall be land disposed unless the waste complies with the treatment standards under Subpart D.

d) Wastes that exhibit a characteristic are also subject to Section 728.107 requirements, except that once the waste is no longer hazardous, for each shipment of such wastes to a non-hazardous waste facility, regulated under 35 Ill. Adm. Code 807 or 811 through 815, or exempted under Section 21(d)(1)(i) of the Environmental Protection Act, or similarly regulated in other States, the initial generator or the treatment facility need not send a Section 728.107 notification to such facility. In such circumstances, a notification and certification must be sent to the Agency, or, for out-of-State shipments, to the appropriate USEPA Regional Administrator or State authorized, pursuant to 40 CFR 271, to implement 40 CFR 268 requirements.

1) The notification must include the following information:

A) The name and address of the non-hazardous waste facility receiving the waste shipment;

B) A description of the waste as initially generated, including the applicable USEPA Hazardous Waste Number(s) and treatability group(s);

C) The treatment standards applicable to the waste at the initial point of generation.

2) The certification must be signed by an authorized representative and must state the language found in Section 728.107(b)(5)(A).

Source: Added at 15 Ill. Reg. , effective

SUBPART C: PROHIBITIONS ON LAND DISPOSAL

Section 728.135 Waste Specific Prohibitions--Third Third wastes.

a) The following wastes are prohibited from land disposal.

1) The wastes specified in 35 Ill. Adm. Code 721.131 as EPA Hazardous Waste Numbers:

F006 (wastewaters),
F019
F039 (wastewaters);

2) The wastes specified in 35 Ill. Adm. Code 721.132 as EPA Hazardous Waste Numbers:

K002
K003
K004 (wastewaters)
K005 (wastewaters)
K006
K008 (wastewaters)
K011 (wastewaters)
K013 (wastewaters)
K014 (wastewaters)
K017
K021 (wastewaters)
K022 (wastewaters)
K025 (wastewaters)
K026
K029 (wastewaters)
K031 (wastewaters)
K032
K033
K034
K035
K041
K042
K046 (wastewaters)
K048 (wastewaters)
K049 (wastewaters)
K050 (wastewaters)
K051 (wastewaters)
K052 (wastewaters)
K060 (wastewaters)
K061 (wastewaters)
K069 (wastewaters)
K073
K083 (wastewaters)
K084 (wastewaters)
K085
K095 (wastewaters)
K096 (wastewaters)
K097
K098
K100 (wastewaters)
K101 (wastewaters)
K102 (wastewaters)
K105
K106 (wastewaters)

3) The wastes specified in 35 Ill. Adm. Code 721.133(e) as EPA Hazardous Waste Numbers:

P001

P002
P003
P004
P005
P006
P007
P008
P009
P010 (wastewaters)
P011 (wastewaters)
P012 (wastewaters)
P014
P015
P016
P017
P018 (wastewaters)
P020
P022
P023
P024
P027
P028
P031
P033
P034
P036 (wastewaters)
P037
P038 (wastewaters)
P042
P045
P046
P047
P048
P049
P050
P051
P054
P056
P057
P058
P059
P060
P064
P065 (wastewaters)
P066
P067
P068
P069
P070
P072
P073
P075

P076
P077
P078
P081
P082
P084
P088
P092 (wastewaters)
P093
P095
P096
P101
P102
P103
P105
P108
P109
P110
P112
P113
P114
P115
P116
P118
P119
P120
P122
P123

4) The wastes specified in 35 Ill. Adm. Code 721.133(f) as EPA Hazardous Waste Numbers:

U001
U002
U003
U004
U005
U006
U007
U008
U009
U010
U011
U012
U014
U015
U016
U017
U018
U019
U020
U021

U022
U023
U024
U025
U026
U027
U029
U030
U031
U032
U033
U034
U035
U036
U037
U038
U039
U041
U042
U043
U044
U045
U046
U047
U048
U049
U050
U051
U052
U053
U055
U056
U057
U059
U060
U061
U062
U063
U064
U066
U067
U068
U070
U071
U072
U073
U074
U075
U076
U077
U078
U079

U080
U081
U082
U083
U084
U085
U086
U089
U090
U091
U092
U093
U094
U095
U096
U097
U098
U099
U101
U103
U105
U106
U108
U109
U110
U111
U112
U113
U114
U115
U116
U117
U118
U119
U120 (wastewaters)
U121
U122
U123
U124
U125
U126
U127
U128
U129
U130
U131
U132
U133
U134
U135
U136 (wastewaters)
U137

U138
U140
U141
U142
U143
U144
U145
U146
U147
U148
U149
U150
U151 (wastewaters)
U152
U153
U154
U155
U156
U157
U158
U159
U160
U161
U162
U163
U164
U165
U166
U167
U168
U169
U170
U171
U172
U173
U174
U176
U177
U178
U179
U180
U181
U182
U183
U184
U185
U186
U187
U188
U189
U191
U192

U193
U194
U196
U197
U200
U201
U202
U203
U204
U205
U206
U207
U208
U209
U210
U211
U213
U214
U215
U216
U217
U218
U219
U220
U222
U225
U226
U227
U228
U234
U236
U237
U238
U239
U240
U243
U244
U246
U247
U248
U249

4) The following wastes identified as hazardous based on a characteristic alone:

D001
D002
D003
D004 (wastewaters)
D005
D006
D007

D008 (except for lead materials stored before secondary smelting)
D009 (wastewaters)
D010
D011
D012
D013
D014
D015
D016
D017

b) The following wastes are prohibited from land disposal. The wastes specified in 35 Ill. Adm. Code 721.132 as EPA Hazardous Waste Numbers:

K048 (nonwastewaters)
K049 (nonwastewaters)
K050 (nonwastewaters)
K051 (nonwastewaters)
K052 (nonwastewaters)

c) Effective May 8, 1992, the following wastes are prohibited from land disposal:

1) The wastes specified in 35 Ill. Adm. Code 721.131 as EPA Hazardous Waste Numbers:

F039 (nonwastewaters)

2) The wastes specified in 35 Ill. Adm. Code 721.132 as EPA Hazardous Waste Numbers:

K031 (nonwastewaters)
K084 (nonwastewaters)
K101 (nonwastewaters)
K102 (nonwastewaters)
K106 (nonwastewaters)

3) The wastes specified in 35 Ill. Adm. Code 721.133(e) as EPA Hazardous Waste Numbers:

P010 (nonwastewaters)
P011 (nonwastewaters)
P012 (nonwastewaters)
P036 (nonwastewaters)
P038 (nonwastewaters)
P065 (nonwastewaters)
P087 (nonwastewaters)
P092 (nonwastewaters)

4) The wastes specified in 35 Ill. Adm. Code

721.133(f) as EPA Hazardous Waste Numbers:

U136 (nonwastewaters)
U151 (nonwastewaters)

5) The following wastes identified as hazardous based on a characteristic alone:

D004 (nonwastewaters)
D008 (lead materials stored before secondary smelting)
D009 (nonwastewaters);

6) Inorganic solids debris as defined in 35 Ill. Adm. Code 728.102(a)(7) (which also applies to chromium refractory bricks carrying the EPA Hazardous Waste Numbers K048-K052)

7) RCRA hazardous wastes that contain naturally occurring radioactive materials.

d) Effective May 8, 1992, hazardous wastes listed in 40 CFR 268.12 that are mixed radioactive/hazardous wastes are prohibited from land disposal.

e) Effective May 8, 1992, the wastes specified in this Section having a treatment standard in Subpart D based on incineration, mercury retorting or vitrification, and which are contaminated soil or debris, are prohibited from land disposal.

h) Between May 8, 1990, and May 8, 1992, wastes included in subsections (c), (d) and (e) shall be disposed of in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in Section 728.105(h)(2).

i) The requirements of subsections (a), (b), (c), (d) and (e) do not apply if:

1) The wastes meet the applicable standards specified in Subpart D;

2) Persons have been granted an exemption from a prohibition pursuant to a petition under Section 728.106, with respect to those wastes and units covered by the petition;

3) The wastes meet the applicable alternate standards established pursuant to a petition granted under Section 728.144;

4) Persons have been granted an extension to the effective date of a prohibition pursuant to Section 728.105, with respect to these wastes covered by the extension.

j) To determine whether a hazardous waste listed in 40 CFR 268.10, 268.11 and 268.12 exceeds the applicable treatment standards specified in Sections 728.141 and 728.143, the initial generator shall either test a representative sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or use knowledge of the waste. If the waste contains constituents in excess of the applicable Subpart D levels, the waste is prohibited from land disposal, and all requirements of this Part are applicable, except as otherwise specified.

SUBPART D: TREATMENT STANDARDS

Section 728.140 Applicability of Treatment Standards

a) A restricted waste identified in Section 728.141 may be land disposed ~~without further treatment~~ only if an extract of the waste or of the treatment residue of the waste developed using the test method Appendix A does not exceed the value shown in Table A for any hazardous constituent listed in Table A for that waste, with the following exceptions: D004, D008, K031, K084, K101, K102, P010, P011, P012, P036, P038 and U136. Wastes D004, D008, K031, K084, K101, K102, P010, P011, P012, P036, P038 and U136 may be land disposed only if an extract of the waste or of the treatment residue of the waste developed using either the test method in 35 Ill. Adm. Code 721.Appendix A or the test method in 35 Ill. Adm. Code 728.Appendix B does not exceed the value shown in Table B for any hazardous constituent listed in Table A for that waste.

b) A restricted waste for which a treatment technology is specified under Section 728.142(a) may be land disposed after it is treated using that specified technology or an equivalent treatment method approved by the Agency under the procedures set forth in Section 728.142(b).

c) Except as otherwise specifies in Section 728.143(c), a~~A~~ restricted waste identified in Section 728.143 may be land disposed only if the constituent concentrations in the waste or treatment residue of the waste do not exceed the value shown in Table B for any hazardous constituent listed in Table B for that waste.

Source: Amended at 15 Ill. Reg. , effective

Section 728.141 Treatment Standards expressed as Concentrations in Waste Extract

a) Table A identifies the restricted wastes and the concentrations of their associated hazardous constituents which may not be exceeded by the extract of a waste or waste treatment residual developed using the test method in Appendix A for the allowable land disposal of such waste, with the exception of wastes D004, D008, K031, K084, K101, K102, P010, P011, P012, P036, P038 and U136. Table A identifies the restricted wastes D004, D008, K031, K084, K101, K102, P010, P011, P012, P036, P038 and U136 and the concentrations of their associated constituents which shall not be exceeded by the extract of a waste or waste treatment residual developed using the test method in 35 Ill. Adm. Code 721.Appendix A or B for the allowable land disposal of such wastes. (Appendix B provides guidance on treatment methods that have been shown to achieve the Table A levels for the respective wastes. Appendix B is not a regulatory requirement but is provided to assist generators and owners or operators in their selection of appropriate treatment methods.) Compliance with these concentrations is required based on grab samples.

b) When wastes with differing treatment standards for a constituent of concern are combined for purposes of treatment, the treatment residue must meet the lowest treatment standard for the constituent of concern.

Section 728.142 Treatment Standards expressed as Specified Technologies

a) The following wastes in subsections (a)(1) and (2) and Table D and E must be treated using the ~~identified~~ technology or technologies specified in subsections (a)(1) and (2) and Table C.~~, or an equivalent method approved under subsection (b).~~

1) Liquid hazardous wastes containing PCBs at concentrations greater than or equal to 50 ppm but less than 500 ppm must be incinerated in accordance with technical requirements at 40 CFR 761.70, incorporated by reference in 35 Ill. Adm. Code 720.111, or burned in high efficiency boilers in accordance with the technical requirements of 40 CFR 761.60. Liquid hazardous wastes

containing PCBs at concentrations greater than or equal to 500 ppm must be incinerated in accordance with the technical requirements of 40 CFR 761.70. Thermal treatment in accordance with this Section must be in compliance with applicable regulations in 35 Ill. Adm. Code 724, 725 and 726.

2) Nonliquid hazardous wastes containing halogenated organic compounds (HOCs) in total concentrations greater than or equal to 1000 mg/kg and liquid HOC-containing wastes that are prohibited under Section 728.132(e)(1) must be incinerated in accordance with the requirements of 35 Ill. Adm. Code 724.Subpart O or 35 Ill. Adm. Code 725.Subpart O~~, or in boilers or industrial furnaces, as defined in 35 Ill. Adm. Code 720, burning in accordance with 35 Ill. Adm. Code 726~~. These treatment standards do not apply where the waste is subject to a Subpart C treatment standard for a specific HOC (such as a hazardous waste chlorinated solvent for which a treatment standard is established under Section 728.141(a)).

~~3) The nonwastewater form of the following hazardous wastes must be incinerated in accordance with the requirements of 35 Ill. Adm. Code 724.Subpart O, or 35 Ill. Adm. Code 725.Subpart O, or burned in boilers or industrial furnaces, as defined in 35 Ill. Adm. Code 720, in accordance with 35 Ill. Adm. Code 726:~~

~~K027~~
~~K039~~
~~K113~~
~~K114~~
~~K115~~
~~K116~~
~~P040~~
~~P041~~
~~P043~~
~~P044~~
~~P062~~
~~P085~~
~~P109~~
~~P111~~
~~U058~~
~~U087~~
~~U221~~
~~U223~~

~~4) The wastewater form of the following hazardous wastes must be treated by carbon adsorption, or~~

~~incineration, or pretreatment followed by carbon adsorption:~~

~~K027~~
~~K039~~
~~K113~~
~~K114~~
~~K115~~
~~K116~~
~~P040~~
~~P041~~
~~P043~~
~~P044~~
~~P062~~
~~P085~~
~~P109~~
~~P111~~
~~U058~~
~~U087~~
~~U221~~
~~U223~~

b) Any person may submit an application to the Agency demonstrating that an alternative treatment method can achieve a level of performance equivalent to that achievable by methods specified in subsections (a), (c) and (d). The applicant shall submit information demonstrating that the applicant's treatment method is in compliance with federal and state requirements, including this Part, 35 Ill. Adm. Code 709, 724, 725, 726 and 729 and Sections 22.6 and 39(h) of the Environmental Protection Act (Ill. Rev. Stat. 1987, ch. 111 1/2, pars. 1022.6 and 1039(h)), and is protective of human health or the environment. On the basis of such information and any other available information, the Agency shall approve the use of the alternative treatment method if the Agency finds that the alternative treatment method provides a measure of performance equivalent to that achieved by methods specified in subsections (a), (c) and (d). Any approval must be stated in writing and may contain such provisions and conditions as the Agency determines to be appropriate. The person to whom such approval~~certification~~ is issued shall comply with all limitations contained in such determination.

c) As an alternative to the otherwise applicable Subpart D treatment standards, lab packs are eligible for land disposal provided the following requirements are met:

1) The lab packs comply with the applicable provisions of 35 Ill. Adm. Code 724.416 and

725.416;

BOARD NOTE: 35 Ill. Adm. Code 729.301 and 729.312 include additional restrictions on the use of lab packs.

2) All hazardous wastes contained in such lab packs are specified in Appendix D or Appendix E;

3) The lab packs are incinerated in accordance with the requirements of 35 Ill. Adm. Code 724.Subpart O or 35 Ill. Adm. Code 725.Subpart O; and

4) Any incinerator residues from lab packs containing D004, D005, D006, D007, D008, D010 and D011 are treated in compliance with the applicable treatment standards specified for such wastes in Subpart D.

d) Radioactive hazardous mixed wastes with treatment standards specified in Table E are not subject to any treatment standards specified in Section 728.141, Section 728.143 or Table D. Radioactive hazardous mixed wastes not subject to treatment standards in Table E remain subject to all applicable treatment standards specified in Section 728.141, Section 728.143 and Table D.

Source: Amended at 15 Ill. Reg. , effective

Section 728.143 Treatment Standards expressed as Waste Concentrations

a) Table B identifies the restricted wastes and the concentrations of their associated hazardous constituents which must not be exceeded by the waste or treatment residual (not an extract of such waste or treatment residual) for the allowable land disposal of such waste or residual. Compliance with these concentrations is required based upon grab samples, unless otherwise noted in Table B. ~~The wastewater and nonwastewater treatment standards in Table B are based on analysis of grab samples except the wastewater treatment standards that are based on analysis of composite samples for wastes, K009, K010, K036, K038, K040, P039, P071, P089, P094, P097 and U235.~~

b) When wastes with different treatment standards for a constituent of concern are combined for purposes of treatment, the treatment residue must meet the lowest treatment standard for the constituent of concern.

c) Notwithstanding the prohibitions specified in subsection (a) and Table B, treatment and disposal facilities may demonstrate (and certify pursuant to Section 728.107(b)(5)) compliance with the treatment standards for organic constituents specified by a footnote in Table B, by satisfying the following conditions:

1) The treatment standards for the organic constituents were established based on incineration in units operated in accordance with the technical requirements of 35 Ill. Adm. Code 724.Subpart O or 35 Ill. Adm. Code 725.Subpart O, or based on combustion in fuel substitution units operating in accordance with applicable technical requirements;

2) The treatment or disposal facility has used the methods referenced in subsection (c)(1) to treat the organic constituents; and

3) The treatment or disposal facility has been unable to detect the organic constituents despite using its best good-faith efforts as defined by applicable standards. Until such standards are developed, the treatment or disposal facility may demonstrate such good-faith efforts by achieving detection limits for the regulated for the regulated organic constituents which are less than ten times the treatment standard specified in this Section.

Source: Amended at 15 Ill. Reg. , effective

Section 728.Appendix D Organometallic Lab Packs

Hazardous wasce with the following EPA waste codes may be placed in an "organometallic" or "Appendix D lab pack:"

P001, P002, P003, P004, P005, P006, P007, P008, P009, P013, P014, P015, P016, P017, P018, P020, P022, P023, P024, P025, P026, P027, P028, P031, P034, P036, P037, P038, P039, P040, P041, P042, P043, P044, P045, P047, P048, P049, P050, P051, P054, P056, P057, P058, P059, P060, P062, P063, P064, P065, P066, P067, P068, P069, P070, P071, P072, P073, P074, P075, P077, P081, P082, P084, P085, P087, P088, P089, P092, P093, P094, P095, P096, P097, P098, P099, P101, P102, P103, P104, P105, P108, P109, P110, P112, P113, P114, P115, P116, P118, P119, P120, P122, P123

U001, U002, U003, U004, U005, U006, U007, U008, U009, U010, U011, U012, U014, U015, U016, U017, U018, U019, U020, U021, U022, U023, U024, U025, U026, U027, U028, U029, U030, U031, U032, U033, U034, U035, U036, U037, U038, U039, U041, U042, U043, U044, U045, U046, U047, U048, U049, U050, U051, U052, U053, U055, U056, U057, U058, U059, U060, U061, U062, U063, U064, U066, U067, U068, U069, U070, U071, U072, U073, U074, U075, U076, U077, U078, U079, U080, U081, U082, U083, U084, U085, U086, U087, U088, U089, U090, U091, U092, U093, U094, U095, U096, U097, U098, U099, U101, U102, U103, U105, U106, U107, U108, U109, U110, U111, U112, U113, U114, U115, U116, U117, U118, U119, U120, U121, U122, U123, U124, U125, U126, U127, U128, U129, U130, U131, U132, U133, U134, U135, U136, U137, U136, U137, U138, U139, U140, U141, U142, U143, U144, U145, U146, U147, U148, U149, U150, U152, U154, U153, U154, U155, U156, U157, U158, U159, U160, U161, U162, U164, U165, U166, U167, U168, U169, U170, U171, U172, U173, U174, U176, U177, U178, U179, U180, U181, U182, U183, U184, U185, U186, U187, U188, U189, U190, U191, U192, U193, U194, U196, U197, U200, U201, U202, U203, U204, U205, U206, U207, U208, U209, U210, U211, U213, U214, U215, U216, U217, U218, U219, U220, U221, U222, U223, U225, U226, U227, U228, U234, U235, U236, U237, U238, U239, U240, U243, U244, U246, U247, U248, U249, U328, U353, U359

F001, F002, F003, F004, F005, F006, F010, F020, F021, F023, F024, F026, F027, F028

K001, K002, K008, K009, K010, K011, K013, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K028, K029, K030, K031, K032, K033, K034, K035, K036, K037, K038, K039, K040, K041, K042, K043, K044, K045, K046, K047, K048, K049, K050, K051, K052, K054, K060, K061, K064, K065, K066, K069, K071, K073, K083, K084, K085, K086, K087, K093, K094, K095, K096, K097, K098, K099, K101, K102, K103, K104, K105, K111, K112, K113, K114, K115, K116, K117, K118, K123, K124, K125, K126, K136

D001, D002, D003, D004, D005, D006, D007, D008, D010, D011, D012, D013, D014, D015, D016, D017

U032, U136, U144, U145, U146, U163, U214, U215, U216, U217

BOARD NOTE: 35 Ill. Adm. Code 729.301 and 729.312 include additional limitations on the use of lab packs.

Source: Added at 15 Ill. Reg. , effective

Section 728.Appendix E Organic Lab Packs

Hazardous wastes with the following EPA Hazardous Waste Code No. may be placed in an "organic" or "Appendix E" lab pack:

P001, P002, P003, P004, P005, P006, P007, P008, P009, P013, P014, P015, P016, P017, P018, P020, P022, P023, P025, P024, P026, P027, P028, P031, P034, P036, P037, P038, P039, P040, P041, P042, P043, P044, P045, P046, P047, P048, P049, P050, P051, P054, P057, P058, P059, P060, P062, P063, P064, P064, P065, P066, P067, P068, P069, P070, P071, P072, P073, P074, P075, P077, P081, P082, P084, P085, P087, P088, P089, P092, P093, P094, P095, P096, P097, P098, P099, P101, P102, P103, P104, P105, P108, P109, P110, P111, P112, P113, P114, P115, P116, P118, P119, P120, P122, P123

U001, U002, U003, U004, U005, U006, U007, U008, U009, U010, U011, U012, U014, U015, U016, U017, U018, U019, U020, U021, U022, U023, U024, U025, U026, U027, U028, U029, U030, U031, U033, U034, U035, U036, U037, U038, U039, U041, U042, U043, U044, U045, U046, U047, U048, U049, U050, U051, U052, U053, U055, U056, U057, U058, U059, U060, U061, U062, U063, U064, U066, U067, U068, U069, U070, U071, U072, U073, U074, U075, U076, U077, U078, U079, U080, U081, U082, U083, U084, U085, U086, U087, U088, U089, U090, U091, U092, U093, U094, U095, U096, U097, U098, U099, U101, U102, U103, U105, U106, U107, U108, U109, U110, U111, U112, U113, U114, U115, U116, U117, U118, U119, U120, U121, U122, U123, U124, U125, U126, U127, U128, U129, U130, U131, U132, U133, U135, U137, U138, U139, U140, U141, U142, U143, U147, U148, U149, U150, U153, U154, U155, U156, U157, U158, U159, U160, U161, U162, U163, U164, U165, U166, U167, U168, U169, U170, U171, U172, U173, U174, U176, U177, U178, U179, U180, U181, U182, U183, U184, U185, U186, U187, U188, U189, U190, U191, U192, U193, U194, U196, U197, U200, U201, U202, U203, U205, U206, U207, U208, U209, U210, U211, U213, U214, U218, U219, U220, U221, U222, U223, U225, U226, U227, U228, U234, U235, U236, U237, U238, U239, U240, U243, U244, U246, U247, U248, U249, U328, U353, U359

F001, F002, F003, F004, F005, F010, F020, F021, F023, F024, F026, F027, F028

K001, K009, K010, K011, K013, K014, K015, K016, K017, K018, K019, K020, K021, K022, K023, K024, K025, K026, K027, K029, K030, K031, K032, K033, K034, K035, K036, K037, K038, K039, K040, K041, K042, K043, K044, K045, K046, K047, K048, K049, K050, K051, K052, K054, K060, K065, K073, K083, K084, K085, K086, K087, K093, K094, K095, K096, K097, K098, K099, K101, K102, K103, K104, K105, K111, K112,

K113, K114, K115, K116, K117, K118, K123, K124, K125, K126, K136

D001, D012, D013, D014, D015, D016, D017

BOARD NOTE: 35 Ill. Adm. Code 729.301 and 729.312 include additional limitations on the use of lab packs.

Source: Added at 15 Ill. Reg. , effective

Section 728.Appendix F Technologies to Achieve Deactivation of Characteristics

The treatment standard for many subcategories of D001, D002 and D003 wastes as well as for K044, K045 and K047 wastes is listed in Section 728.142 simply as "Deactivation to remove the characteristics of ignitability, corrosivity, and reactivity". USEPA has determined that many technologies, when used alone or in combination, can achieve this standard. The following presents a partial list of these technologies, utilizing the five letter technology codes established in Table C. Use of these specific technologies is not mandatory and does not preclude direct reuse, recovery or the use of other pretreatment technologies provided deactivation is achieved and these alternative methods are not performed in units designated as land disposal.

Waste code/subcategory	Nonwastewaters	Wastewaters
D001 Ignitable Liquids based on 35 Ill. Adm. Code 721.121(a)(1)--Low TOC Nonwastewater Subcategory (containing 1% to <10% TOC)	RORGS WETOX INCIN CHOXD BIODG	n.a.
D001 Ignitable Liquids based on 35 Ill. Adm. Code 721.121(a)(1)--Ignitable Wastewater Subcategory (containing <1% TOC)	n.a.	WETOX RORGS INCIN CHOXD BIODG
D001 Compressed Gases based on 35 Ill. Adm. Code 721.121(a)(3)	RCGAS FSUBS INCIN ADGAS fb. INCIN ADGAS fb. (CHOXD; or CHRED)	n.a.

D001 Ignitable Reactives based on 35 Ill. Adm. Code 721.121(a)(2)	WTRRX CHOXD CHRED STABL INCIN	n.a.
D001 Ignitable Oxidizers based on 35 Ill. Adm. Code 721.121(a)(4)	CHRED INCIN	CHRED INCIN
D002 Acid Subcategory based on 35 Ill. Adm. Code 721.122(a)(1) with pH less than or equal to 2	RCORR NEUTR INCIN	NEUTR INCIN
D002 Alkaline Subcategory based on 35 Ill. Adm. Code 721.122(a)(1) with pH greater than or equal to 12.5	NEUTR INCIN	NEUTR INCIN
D002 Other Corrosives based on 35 Ill. Adm. Code 721.122(a)(2)	CHOXD CHRED INCIN STABL	CHOXD CHRED INCIN
D003 Water Reactives based on 35 Ill. Adm. Code 721.123(a)(2), (3) and (4)	INCIN WTRRX CHOXD CHRED	n.a.
D003 Reactive Sulfides based on 35 Ill. Adm. Code 721.123(a)(5)	CHOXD CHRED INCIN STABL	CHOXD CHRED BIODG INCIN
D003 Explosives based on 35 Ill. Adm. Code 721.123(a) (6), (7) and	INCIN CHOXD CHRED	INCIN CHOXD CHRED BIODG CARBN
D003 Other Reactives based on 35 Ill. Adm. Code 721.123(a)(1)	INCIN CHOXD CHRED	INCIN CHOXD CHRED BIODG CARBN
K044 Wastewater treatment sludges from the manufacturing and processing of explosives	CHOXD CHRED INCIN	CHOXD CHRED BIODG CARBN INCIN

K045 Spent carbon from the treatment of wastewaters containing explosives	CHOXD CHRED INCIN	CHOXD CHRED BIODG CARBN INCIN
K047 Pink/red water from TNT operations	CHOXD CHRED INCIN	CHOXD CHRED BIODG CARBN INCIN

Note:"n.a." stands for "not applicable".

"fb." stands for "followed by".

Source: Added at 15 Ill. Reg. , effective

Section 728.Appendix G Federal Effective Dates

The following are the effective dates for the USEPA rules in 40 CFR 268. These generally became effective as Illinois rules at a later date.

Waste Code	Waste Category	Effective date
California list	Liquid hazardous wastes, including free liquids associated with solid or sludge, containing free cyanides at concentrations greater than or equal to 1,000 mg/l or certain metals or compounds of these metals greater than or equal to the prohibition levels	July 8, 1987
California list	Liquid (aqueous) hazardous wastes having a pH less than or equal to 2	July 8, 1987
California list	Dilute HOC wastewaters, defined as HOC-waste mixtures that are primarily water and that contain greater than or equal to 1,000 mg/l but less than 10,000 mg/l	July 8, 1987
California list	Liquid hazardous waste containing PCBs greater than or equal to 50 ppm	July 8, 1987
California list	Other liquid and non-liquid hazardous wastes containing HOCs in total concentration greater than or equal to 1,000 mg	Nov. 8, 1988
California list	Soil and debris HOCs not from CERCLA/RCRA corrective actions	July 8, 1989
California list	Soil and debris HOCs from CERCLA/RCRA corrective actions	Nov. 8, 1990
D001	All	Aug. 8, 1990
D002	All	Aug. 8, 1990
D003	All	Aug. 8, 1990
D004	Inorganic solid debris	May 8, 1992
D004	Nonwastewater	May 8, 1992

D004	Wastewater	Aug. 8, 1990
D005	Inorganic solid debris	May 8, 1992
D005	All others	Aug. 8, 1990
D006	Inorganic solid debris	May 8, 1992
D006	All others	Aug. 8, 1990
D007	Inorganic solid debris	May 8, 1992
D007	All others	Aug. 8, 1990
D008	Inorganic solid debris	May 8, 1992
D008	Lead acid batteries	May 8, 1992
D008	All others	Aug. 8, 1990
D009	Inorganic solid debris	May 8, 1992
D009	High mercury nonwastewater	May 8, 1992
D009	Low mercury nonwastewater	May 8, 1992
D009	All others	Aug. 8, 1990
D010	Inorganic solid debris	May 8, 1992
D010	All others	Aug. 8, 1990
D011	Inorganic solid debris	May 8, 1992
D011	All others	Aug. 8, 1990
D012	All	Aug. 8, 1990
D013	All	Aug. 8, 1990
D014	All	Aug. 8, 1990
D015	All	Aug. 8, 1990
D016	All	Aug. 8, 1990
D017	All	Aug. 8, 1990
F001-F005	All, except in next listing	Nov. 8, 1986

F001-F005	Small quantity generators, CERCLA/RCRA corrective action, initial generator's solvent-water mixtures, solvent-containing sludges and solids, and non CERCLA/RCRA corrective action soils with less than 1 percent total solvent constituents	Nov. 8, 1988
F001-F005	Soil and debris	Nov. 8, 1990
F002 b	All	Aug. 8, 1990
F005 c	All	Aug. 8, 1990
F006	Wastewater	Aug. 8, 1990
F006	Nonwastewater	Aug. 8, 1988
F006 (cyanides)	Nonwastewater	July 8, 1989
F007	All	July 8, 1989
F008	All	July 8, 1989
F009	All	July 8, 1989
F010	Soil and debris	June 8, 1991
F010	All others	June 8, 1989
F011	All	July 8, 1989
F012	All	July 8, 1989
F019	All	Aug. 8, 1990
F020	Soil and debris	Nov. 8, 1990
F020	All others	Nov. 8, 1988
F021	Soil and debris	Nov. 8, 1990
F021	All others	Nov. 8, 1988
F022	Soil and debris	Nov. 8, 1990
F022	All others	Nov. 8, 1988
F023	Soil and debris	Nov. 8, 1990
F023	All others	Nov. 8, 1988

F024	Soil and debris	June 8, 1991
F024 (metals)	Nonwastewater	Aug. 8, 1990
F024 (dioxins/furans)	All	Aug. 8, 1990
F024	All others	June 8, 1989
F025	All	Aug. 8, 1990
F026	Soil and debris	Nov. 8, 1990
F026	All others	Nov. 8, 1988
F027	Soil and debris	Nov. 8, 1990
F027	All others	Nov. 8, 1988
F028	Soil and debris	Nov. 8, 1990
F028	All others	Nov. 8, 1988
F039	Wastewater	Aug. 8, 1990
F039	Nonwastewater	May. 8, 1992
K001	Soil and debris	Aug. 8, 1990
K001 (lead/organics)	All	Aug. 8, 1990
K001	All others	Aug. 8, 1988
K002	All	Aug. 8, 1990
K003	All	Aug. 8, 1990
K004	All	Aug. 8, 1990
K005 d	All	Aug. 8, 1990
K006	All	Aug. 8, 1990
K007 d	All	Aug. 8, 1990
K008	All	Aug. 8, 1990
K009	Soil and debris	June 8, 1991
K009	All others	June 8, 1989

K010	Soil and debris	June 8, 1991
K010	All others	June 8, 1989
K011	Wastewater	Aug. 8, 1990
K011	Nonwastewater	June 8, 1989
K011	Soil and debris	June 8, 1991
K013	Wastewater	Aug. 8, 1990
K013	Nonwastewater	June 8, 1989
K013	Soil and debris	June 8, 1991
K014	Wastewater	Aug. 8, 1990
K014	Nonwastewater	June 8, 1989
K014	Soil and debris	June 8, 1991
K015	Wastewater	Aug. 8, 1988
K015	Nonwastewater	Aug. 8, 1990
K016	Soil and debris	Aug. 8, 1990
K016	All others	Aug. 8, 1988
K017	All	Aug. 8, 1990
K018	Soil and debris	Aug. 8, 1990
K018	All others	Aug. 8, 1988
K019	Soil and debris	Aug. 8, 1990
K019	All others	Aug. 8, 1988
K020	Soil and debris	Aug. 8, 1990
K020	All others	Aug. 8, 1988
K021 e	All	Aug. 8, 1990
K022	Wastewater	Aug. 8, 1990
K022	Nonwastewater	Aug. 8, 1988
K022	Soil and debris	Aug. 8, 1990

K023	Soil and debris	June 8, 1991
K023	All others	June 8, 1989
K024	Soil and debris	Aug. 8, 1990
K024	All others	Aug. 8, 1988
K025 e	All	Aug. 8, 1990
K026	All	Aug. 8, 1990
K027	Soil and debris	June 8, 1991
K027	All others	June 8, 1989
K028	Soil and debris	June 8, 1991
K028 (metals)	Nonwastewater	Aug. 8, 1990
K028	All others	June 8, 1989
K029	Wastewater	Aug. 8, 1990
K029	Nonwastewater	June 8, 1989
K029	Soil and debris	June 8, 1991
K030	Soil and debris	Aug. 8, 1990
K030	All others	Aug. 8, 1988
K031	Wastewater	Aug. 8, 1990
K031	Nonwastewater	May 8, 1992
K032	All	Aug. 8, 1990
K033	All	Aug. 8, 1990
K034	All	Aug. 8, 1990
K035	All	Aug. 8, 1990
K036 e	All	Aug. 8, 1990
K037	Soil and debris	Aug. 8, 1990
K037	Wastewater	Aug. 8, 1990
K037	All others	Aug. 8, 1988

K038	Soil and debris	June 8, 1991
K038	All others	June 8, 1989
K039	Soil and debris	June 8, 1991
K039	All others	June 8, 1989
K040	Soil and debris	June 8, 1991
K040	All others	June 8, 1989
K041	All	Aug. 8, 1990
K042	All	Aug. 8, 1990
K043	Soil and debris	June 8, 1991
K043	All others	June 8, 1989
K044	All	Aug. 8, 1990
K045	All	Aug. 8, 1990
K046	Nonreactive nonwastewater	Aug. 8, 1988
K046	All others	Aug. 8, 1990
K047	All	Aug. 8, 1990
K048	Wastewater	Aug. 8, 1990
K048	Nonwastewater	Nov. 8, 1990
K049	Wastewater	Aug. 8, 1990
K049	Nonwastewater	Nov. 8, 1990
K050	Wastewater	Aug. 8, 1990
K050	Nonwastewater	Nov. 8, 1990
K051	Wastewater	Aug. 8, 1990
K051	Nonwastewater	Nov. 8, 1990
K052	Wastewater	Aug. 8, 1990
K052	Nonwastewater	Nov. 8, 1990
K060 e	All	Aug. 8, 1990

K061	Wastewater	Aug. 8, 1990
K061	Nonwastewater	Aug. 8, 1988
K062	All	Aug. 8, 1988
K069	All	Aug. 8, 1990
K073	All	Aug. 8, 1990
K083	All	Aug. 8, 1990
K084	Wastewater	Aug. 8, 1990
K084	Nonwastewater	May 8, 1992
K085	All	Aug. 8, 1990
K086	All	Aug. 8, 1990
K087	Soil and debris	Aug. 8, 1990
K087	All others	Aug. 8, 1988
K093	Soil and debris	June 8, 1991
K093	All others	June 8, 1989
K094	Soil and debris	June 8, 1991
K094	All others	June 8, 1989
K095	Wastewater	Aug. 8, 1990
K095	Nonwastewater	June 8, 1989
K095	Soil and debris	June 8, 1991
K096	Wastewater	Aug. 8, 1990
K096	Nonwastewater	June 8, 1989
K096	Soil and debris	June 8, 1991
K097	All	Aug. 8, 1990
K098	All	Aug. 8, 1990
K099	All	Aug. 8, 1988
K100 e	All	Aug. 8, 1990

K101	Wastewater	Aug. 8, 1988
K101	Nonwastewater	May 8, 1992
K102	Wastewater	Aug. 8, 1988
K102	Nonwastewater	May 8, 1992
K103	Soil and debris	Aug. 8, 1990
K103	All others	Aug. 8, 1988
K104	Soil and debris	Aug. 8, 1990
K104	All others	Aug. 8, 1988
K105	All	Aug. 8, 1990
K106	High mercury nonwastewater	May 8, 1992
K106	Low mercury nonwastewater	May. 8, 1992
K106	All others	Aug. 8, 1990
K113	Soil and debris	June 8, 1991
K113	All others	June 8, 1989
K114	Soil and debris	June 8, 1991
K114	All others	June 8, 1989
K115	Soil and debris	June 8, 1991
K115	All others	June 8, 1989
K116	Soil and debris	June 8, 1991
K116	All others	June 8, 1989
P001	All	Aug. 8, 1990
P002	All	Aug. 8, 1990
P003	All	Aug. 8, 1990
P004	All	Aug. 8, 1990
P005	All	Aug. 8, 1990
P006	All	Aug. 8, 1990

P007	All	Aug. 8, 1990
P008	All	Aug. 8, 1990
P009	All	Aug. 8, 1990
P010	Wastewater	Aug. 8, 1990
P010	Nonwastewater	May 8, 1992
P011	Wastewater	Aug. 8, 1990
P011	Nonwastewater	May 8, 1992
P012	Wastewater	Aug. 8, 1990
P012	Nonwastewater	May 8, 1992
P013	All	Aug. 8, 1990
P014	All	Aug. 8, 1990
P015	All	Aug. 8, 1990
P016	All	Aug. 8, 1990
P017	All	Aug. 8, 1990
P018	All	Aug. 8, 1990
P020	All	Aug. 8, 1990
P021	All	June 8, 1989
P022	All	Aug. 8, 1990
P023	All	Aug. 8, 1990
P024	All	Aug. 8, 1990
P026	All	Aug. 8, 1990
P027	All	Aug. 8, 1990
P028	All	Aug. 8, 1990
P029	All	June 8, 1989
P030	All	June 8, 1989
P031	All	Aug. 8, 1990

P033	All	Aug. 8, 1990
P034	All	Aug. 8, 1990
P036	Wastewater	Aug. 8, 1990
P036	Nonwastewater	May 8, 1992
P037	All	Aug. 8, 1990
P038	Wastewater	Aug. 8, 1990
P038	Nonwastewater	May 8, 1992
P039	Soil and debris	June 8, 1991
P039	All others	June 8, 1989
P040	Soil and debris	June 8, 1991
P040	All others	June 8, 1989
P041	Soil and debris	June 8, 1991
P041	All others	June 8, 1989
P042	All	Aug. 8, 1990
P043	Soil and debris	June 8, 1991
P043	All others	June 8, 1989
P044	Soil and debris	June 8, 1991
P044	All others	June 8, 1989
P045	All	Aug. 8, 1990
P046	All	Aug. 8, 1990
P047	All	Aug. 8, 1990
P048	All	Aug. 8, 1990
P049	All	Aug. 8, 1990
P050	All	Aug. 8, 1990
P051	All	Aug. 8, 1990
P054	All	Aug. 8, 1990

P056	All	Aug. 8, 1990
P057	All	Aug. 8, 1990
P058	All	Aug. 8, 1990
P059	All	Aug. 8, 1990
P060	All	Aug. 8, 1990
P062	Soil and debris	June 8, 1991
P062	All others	June 8, 1989
P063	All	June 8, 1989
P064	All	Aug. 8, 1990
P065	High mercury nonwastewater	May 8, 1992
P065	Low mercury nonwastewater	May 8, 1992
P065	All others	Aug. 8, 1990
P066	All	Aug. 8, 1990
P067	All	Aug. 8, 1990
P068	All	Aug. 8, 1990
P069	All	Aug. 8, 1990
P070	All	Aug. 8, 1990
P071	Soil and debris	June 8, 1991
P071	All others	June 8, 1989
P072	All	Aug. 8, 1990
P073	All	Aug. 8, 1990
P074	All	June 8, 1989
P075	All	Aug. 8, 1990
P076	All	Aug. 8, 1990
P077	All	Aug. 8, 1990
P078	All	Aug. 8, 1990

P081	All	Aug. 8, 1990
P082	All	Aug. 8, 1990
P084	All	Aug. 8, 1990
P085	Soil and debris	June 8, 1991
P085	All others	June 8, 1989
P087	All	May 8, 1992
P088	All	Aug. 8, 1990
P089	Soil and debris	June 8, 1991
P089	All others	June 8, 1989
P092	High mercury nonwastewater	May 8, 1992
P092	Low mercury nonwastewater	May 8, 1992
P092	All others	Aug. 8, 1990
P093	Soil and debris	May 8, 1992
P093	All others	Aug. 8, 1990
P094	Soil and debris	June 8, 1991
P094	All others	June 8, 1989
P095	Soil and debris	May 8, 1992
P095	All others	Aug. 8, 1990
P096	All	Aug. 8, 1990
P097	Soil and debris	June 8, 1991
P097	All others	June 8, 1989
P098	All	June 8, 1989
P099 (silver)	Wastewater	Aug. 8, 1990
P099 (cyanides)	Wastewater	June 8, 1989
P099 (cyanides/silver	Nonwastewater	June 8, 1989

P101	All	Aug. 8, 1990
P102	All	Aug. 8, 1990
P103	All	Aug. 8, 1990
P104 (silver)	Wastewater	Aug. 8, 1990
P104 (cyanides)	Wastewater	June 8, 1989
P104 (cyanides/silver	Nonwastewater	June 8, 1989
P105	All	Aug. 8, 1990
P106	All	June 8, 1989
P108	Soil and debris	May 8, 1992
P108	All others	Aug. 8, 1990
P109	Soil and debris	June 8, 1991
P109	All others	June 8, 1989
P110	All	Aug. 8, 1990
P111	Soil and debris	June 8, 1991
P111	All others	June 8, 1989
P112	All	Aug. 8, 1990
P113	All	Aug. 8, 1990
P114	All	Aug. 8, 1990
P115	All	Aug. 8, 1990
P116	Soil and debris	May 8, 1992
P116	All others	Aug. 8, 1990
P118	Soil and debris	May 8, 1992
P118	All others	Aug. 8, 1990
P119	All	Aug. 8, 1990
P120	All	Aug. 8, 1990

P121	All	June 8, 1989
P122	All	Aug. 8, 1990
P123	All	Aug. 8, 1990
U001	All	Aug. 8, 1990
U002	All	Aug. 8, 1990
U003	Soil and debris	May 8, 1992
U003	All others	Aug. 8, 1990
U004	All	Aug. 8, 1990
U005	All	Aug. 8, 1990
U006	Soil and debris	May 8, 1992
U006	All others	Aug. 8, 1990
U007	Soil and debris	May 8, 1992
U007	All others	Aug. 8, 1990
U008	All	Aug. 8, 1990
U009	All	Aug. 8, 1990
U010	Soil and debris	May 8, 1992
U010	All others	Aug. 8, 1990
U011	Soil and debris	May 8, 1992
U011	All others	Aug. 8, 1990
U012	All	Aug. 8, 1990
U014	Soil and debris	May 8, 1992
U014	All others	Aug. 8, 1990
U015	Soil and debris	May 8, 1992
U015	All others	Aug. 8, 1990
U016	All	Aug. 8, 1990
U017	Soil and debris	May 8, 1992

U017	All others	Aug. 8, 1990
U018	All	Aug. 8, 1990
U019	All	Aug. 8, 1990
U020	Soil and debris	May 8, 1992
U020	All others	Aug. 8, 1990
U021	Soil and debris	May 8, 1992
U021	All others	Aug. 8, 1990
U022	All	Aug. 8, 1990
U023	All	Aug. 8, 1990
U024	All	Aug. 8, 1990
U025	All	Aug. 8, 1990
U026	Soil and debris	May 8, 1992
U026	All others	Aug. 8, 1990
U027	All	Aug. 8, 1990
U028	Soil and debris	June 8, 1991
U028	All others	June 8, 1989
U029	All	Aug. 8, 1990
U030	All	Aug. 8, 1990
U031	All	Aug. 8, 1990
U032	All	Aug. 8, 1990
U033	Soil and debris	May 8, 1992
U033	All others	Aug. 8, 1990
U034	Soil and debris	May 8, 1992
U034	All others	Aug. 8, 1990
U035	Soil and debris	May 8, 1992
U035	All others	Aug. 8, 1990

U036	All	Aug. 8, 1990
U037	All	Aug. 8, 1990
U038	Soil and debris	May 8, 1992
U038	All others	Aug. 8, 1990
U039	All	Aug. 8, 1990
U041	Soil and debris	May 8, 1992
U041	All others	Aug. 8, 1990
U042	Soil and debris	May 8, 1992
U042	All others	Aug. 8, 1990
U043	All	Aug. 8, 1990
U044	All	Aug. 8, 1990
U045	All	Aug. 8, 1990
U046	Soil and debris	May 8, 1992
U046	All others	Aug. 8, 1990
U047	All	Aug. 8, 1990
U048	All	Aug. 8, 1990
U049	Soil and debris	May 8, 1992
U049	All others	Aug. 8, 1990
U050	All	Aug. 8, 1990
U051	All	Aug. 8, 1990
U052	All	Aug. 8, 1990
U053	All	Aug. 8, 1990
U055	All	Aug. 8, 1990
U056	All	Aug. 8, 1990
U057	All	Aug. 8, 1990
U058	Soil and debris	June 8, 1992

U058	All others	June 8, 1989
U059	Soil and debris	May 8, 1992
U059	All others	Aug. 8, 1990
U060	Soil and debris	May 8, 1992
U060	All others	Aug. 8, 1990
U061	Soil and debris	May 8, 1992
U061	All others	Aug. 8, 1990
U062	Soil and debris	May 8, 1992
U062	All others	Aug. 8, 1990
U063	All	Aug. 8, 1990
U064	All	Aug. 8, 1990
U066	All	Aug. 8, 1990
U067	All	Aug. 8, 1990
U068	All	Aug. 8, 1990
U069	Soil and debris	June 8, 1991
U069	All others	June 8, 1989
U070	All	Aug. 8, 1990
U071	All	Aug. 8, 1990
U072	All	Aug. 8, 1990
U073	Soil and debris	May 8, 1992
U073	All others	Aug. 8, 1990
U074	Soil and debris	May 8, 1992
U074	All others	Aug. 8, 1990
U075	All	Aug. 8, 1990
U076	All	Aug. 8, 1990
U077	All	Aug. 8, 1990

U078	All	Aug. 8, 1990
U079	All	Aug. 8, 1990
U080	All	Aug. 8, 1990
U081	All	Aug. 8, 1990
U082	All	Aug. 8, 1990
U083	All	Aug. 8, 1990
U084	All	Aug. 8, 1990
U085	All	Aug. 8, 1990
U086	All	Aug. 8, 1990
U087	Soil and debris	June 8, 1991
U087	All others	June 8, 1989
U088	Soil and debris	June 8, 1991
U088	All others	June 8, 1989
U089	All	Aug. 8, 1990
U090	All	Aug. 8, 1990
U091	Soil and Debris	May 8, 1992
U091	All others	Aug. 8, 1990
U092	Soil and debris	May 8, 1992
U092	All others	Aug. 8, 1990
U093	Soil and debris	May 8, 1992
U093	All others	Aug. 8, 1990
U094	All	Aug. 8, 1990
U095	Soil and debris	May 8, 1992
U095	All others	Aug. 8, 1990
U096	All	Aug. 8, 1990
U097	Soil and debris	May 8, 1992

U097	All others	Aug. 8, 1990
U098	All	Aug. 8, 1990
U099	All	Aug. 8, 1990
U101	All	Aug. 8, 1990
U102	Soil and debris	June 8, 1991
U102	All others	June 8, 1989
U103	All	Aug. 8, 1990
U105	All	Aug. 8, 1990
U106	All	Aug. 8, 1990
U107	Soil and debris	June 8, 1991
U107	All others	June 8, 1989
U108	All	Aug. 8, 1990
U109	All	Aug. 8, 1990
U110	Soil and debris	May 8, 1992
U110	All others	Aug. 8, 1990
U111	All	Aug. 8, 1990
U112	All	Aug. 8, 1990
U113	All	Aug. 8, 1990
U114	Soil and debris	May 8, 1992
U114	All others	Aug. 8, 1990
U115	All	Aug. 8, 1990
U116	Soil and debris	May 8, 1992
U116	All others	Aug. 8, 1990
U117	All	Aug. 8, 1990
U118	All	Aug. 8, 1990
U119	Soil and debris	May 8, 1992

U119	All others	Aug. 8, 1990
U120	All	Aug. 8, 1990
U121	All	Aug. 8, 1990
U122	All	Aug. 8, 1990
U123	All	Aug. 8, 1990
U124	All	Aug. 8, 1990
U125	All	Aug. 8, 1990
U126	All	Aug. 8, 1990
U127	All	Aug. 8, 1990
U128	All	Aug. 8, 1990
U129	All	Aug. 8, 1990
U130	Soil and debris	May 8, 1992
U130	All others	Aug. 8, 1990
U131	All	Aug. 8, 1990
U132	Soil and debris	May 8, 1992
U132	All others	Aug. 8, 1990
U133	All	Aug. 8, 1990
U134	All	Aug. 8, 1990
U135	All	Aug. 8, 1990
U136	Wastewater	Aug. 8, 1990
U136	Nonwastewater	May 8, 1992
U137	All	Aug. 8, 1990
U138	All	Aug. 8, 1990
U140	All	Aug. 8, 1990
U141	All	Aug. 8, 1990
U142	All	Aug. 8, 1990

U143	Soil and debris	May 8, 1992
U143	All others	Aug. 8, 1990
U144	All	Aug. 8, 1990
U145	All	Aug. 8, 1990
U146	All	Aug. 8, 1990
U147	All	Aug. 8, 1990
U148	Soil and debris	May 8, 1992
U148	All others	Aug. 8, 1990
U149	Soil and debris	May 8, 1992
U149	All others	Aug. 8, 1990
U150	Soil and debris	May 8, 1992
U150	All others	Aug. 8, 1990
U151	High mercury nonwastewater	May 8, 1992
U151	Low mercury nonwastewater	May 8, 1992
U151	Soil and debris	May 8, 1992
U151	All others	Aug. 8, 1990
U152	All	Aug. 8, 1990
U153	Soil and debris	May 8, 1992
U153	All others	Aug. 8, 1990
U154	All	Aug. 8, 1990
U155	All	Aug. 8, 1990
U156	Soil and debris	May 8, 1992
U156	All others	Aug. 8, 1990
U157	All	Aug. 8, 1990
U158	All	Aug. 8, 1990
U159	All	Aug. 8, 1990

U160	All	Aug. 8, 1990
U161	All	Aug. 8, 1990
U162	All	Aug. 8, 1990
U163	Soil and debris	May 8, 1992
U163	All others	Aug. 8, 1990
U164	Soil and debris	May 8, 1992
U164	All others	Aug. 8, 1990
U165	All	Aug. 8, 1990
U166	All	Aug. 8, 1990
U167	Soil and debris	May 8, 1992
U167	All others	Aug. 8, 1990
U168	Soil and debris	May 8, 1992
U168	All others	Aug. 8, 1990
U169	All	Aug. 8, 1990
U170	All	Aug. 8, 1990
U171	Soil and debris	May 8, 1992
U171	All others	Aug. 8, 1990
U172	All	Aug. 8, 1990
U173	Soil and debris	May 8, 1992
U173	All others	Aug. 8, 1990
U174	All	Aug. 8, 1990
U176	Soil and debris	May 8, 1992
U176	All others	Aug. 8, 1990
U177	Soil and debris	May 8, 1992
U177	All others	Aug. 8, 1990
U178	Soil and debris	May 8, 1992

U178	All others	Aug. 8, 1990
U179	All	Aug. 8, 1990
U180	All	Aug. 8, 1990
U181	All	Aug. 8, 1990
U182	All	Aug. 8, 1990
U183	All	Aug. 8, 1990
U184	Soil and debris	May 8, 1992
U184	All others	Aug. 8, 1990
U185	All	Aug. 8, 1990
U186	All	Aug. 8, 1990
U187	All	Aug. 8, 1990
U188	All	Aug. 8, 1990
U189	All	Aug. 8, 1990
U190	Soil and debris	June 8, 1991
U190	All others	June 8, 1989
U191	Soil and debris	May 8, 1992
U191	All others	Aug. 8, 1990
U192	All	Aug. 8, 1990
U193	Soil and debris	May 8, 1992
U193	All others	Aug. 8, 1990
U194	Soil and debris	May 8, 1992
U194	All others	Aug. 8, 1990
U196	All	Aug. 8, 1990
U197	All	Aug. 8, 1990
U200	Soil and debris	May 8, 1992
U200	All others	Aug. 8, 1990

U201	All	Aug. 8, 1990
U202	Soil and debris	May 8, 1992
U202	All others	Aug. 8, 1990
U203	All	Aug. 8, 1990
U204	All	Aug. 8, 1990
U205	All	Aug. 8, 1990
U206	Soil and debris	May 8, 1992
U206	All others	Aug. 8, 1990
U207	All	Aug. 8, 1990
U208	All	Aug. 8, 1990
U209	All	Aug. 8, 1990
U210	All	Aug. 8, 1990
U211	All	Aug. 8, 1990
U213	All	Aug. 8, 1990
U214	All	Aug. 8, 1990
U215	All	Aug. 8, 1990
U216	All	Aug. 8, 1990
U217	All	Aug. 8, 1990
U218	Soil and debris	May 8, 1992
U218	All others	Aug. 8, 1990
U219	Soil and debris	May 8, 1992
U219	All others	Aug. 8, 1990
U220	All	Aug. 8, 1990
U221	Soil and debris	June 8, 1991
U221	All others	June 8, 1989
U222	Soil and debris	May 8, 1992

U222	All others	Aug. 8, 1990
U223	Soil and debris	June 8, 1991
U223	All others	June 8, 1989
U225	All	Aug. 8, 1990
U226	All	Aug. 8, 1990
U227	All	Aug. 8, 1990
U228	All	Aug. 8, 1990
U234	Soil and debris	May 8, 1992
U234	All others	Aug. 8, 1990
U235	Soil and debris	June 8, 1991
U235	All others	June 8, 1989
U236	Soil and debris	May 8, 1992
U236	All others	Aug. 8, 1990
U237	Soil and debris	May 8, 1992
U237	All others	Aug. 8, 1990
U238	Soil and debris	May 8, 1992
U238	All others	Aug. 8, 1990
U239	All	Aug. 8, 1990
U240	Soil and debris	May 8, 1992
U240	All others	Aug. 8, 1990
U243	All	Aug. 8, 1990
U244	Soil and debris	May 8, 1992
U244	All others	Aug. 8, 1990
U246	All	Aug. 8, 1990
U247	All	Aug. 8, 1990
U248	All	Aug. 8, 1990

U249	All	Aug. 8, 1990

a This table does not include mixed radioactive wastes (from the First, Second, and Third Third rules) which are receiving a national capacity variance until May 8, 1992 for all applicable treatment technologies.

b Standards are being promulgated for 1,1,2-trichloroethane and 2- nitropropane for wastewaters and nonwastewaters.

c Standards are being promulgated for benzene and 2-ethoxyethanol for wastewaters and nonwastewaters.

d Treatment standards for nonwastewaters disposed of after June 8, 1989, were promulgated June 8, 1989.

e Treatment standards for nonwastewaters disposed of after August 17, 1988, were promulgated May 2, 1989.

BOARD NOTE: This table is provided for the convenience of the reader.

Source: Added at 15 Ill. Reg. , effective

Section 728.Appendix H National Capacity LDR Variances for UIC Wastes

Waste Code	Waste Category	Effective date
F001-F005	All spent F001-F005 solvent containing less than 1 percent total F001-F005 solvent constituents	August 8, 1990.
California list	Liquid hazardous wastes, including free liquids associated with any solid or sludge, containing free cyanides at concentrations greater than or equal to 1,000 mg/l, or containing certain metals or compounds of these metals greater than or equal to the prohibition levels	August 8, 1990
California list	Liquid hazardous waste having a pH less than or equal to 2	August 8, 1990
California list	Hazardous wastes containing HOCs in total concentrations less than 10,000 mg/l but greater than or equal to 1,000 mg/l	August 8, 1990
D002 b	All	May 8, 1992
D003 (cyanides)	All	May 8, 1992
D003 (sulfides)	All	May 8, 1992
D003 (explosives, reactives)	All	May 8, 1992
D007	All	May 8, 1992
D009	High Mercury Nonwastewater	May 8, 1992
D009	Low Mercury Nonwastewater	May 8, 1992
F011	All	June 8, 1991
F039	Wastewater	May 8, 1992
K009	Wastewater	June 8, 1991
K011	Nonwastewater	June 8, 1991

K011	Wastewater	May 8, 1992
K013	Nonwastewater	June 8, 1991
K013	Wastewater	May 8, 1992
K014	All	May 8, 1992
K016 (dilute)	All	June 8, 1991
K048	All	August 8, 1990
K049	All	August 8, 1990
K050	All	August 8, 1990
K051	All	August 8, 1990
K052	All	August 8, 1990
K062	All	August 8, 1990
K071	All	August 8, 1990
K104	All	August 8, 1990

a Wastes that are deep well disposed on-site receive a six-month variance, with restrictions effective in November 1990.

b Deepwell injected D002 liquids with a pH less than 2 must meet the California List treatment standards on August 8, 1990.

BOARD NOTE: This table is provided for the convenience of the reader.

Source: Added at 15 Ill. Reg. , effective

Section 728.Table A Constituent Concentrations in Waste Extract (CCWE)

F001 -- F005 Spent Solvents	Concentration (in mg/L) Wastewaters containing spent solvents	All other spent solvent wastes
Acetone	0.05	0.59
n-Butyl alcohol	5.0	5.0
Carbon disulfide	1.05	4.81
Carbon tetrachloride	0.05	0.96
Chlorobenzene	0.15	0.05
Cresols (and cresylic acid)	2.82	0.75
Cyclohexanone	0.125	0.75
1,2-Dichlorobenzene	0.65	0.125
Ethyl acetate	0.05	0.75
Ethylbenzene	0.05	0.053
Ethyl ether	0.05	0.75
Isobutanol	5.0	5.0
Methanol	0.25	0.75
Methylene chloride	0.20	0.96
Methyl ethyl ketone	0.05	0.75
Methyl isobutyl ketone	0.05	0.33
Nitrobenzene	0.66	0.125
Pyridine	1.12	0.33
Tetrachloroethylene	0.079	0.05
Toluene	1.12	0.33
1,1,1-Trichloroethane	1.05	0.41
1,1,2-Trichloro-1,2,2-trifluoroethane	1.05	0.96
Trichloroethylene	0.062	0.091
Trichlorofluoromethane	0.05	0.96
Xylene	0.05	0.15

F006 nonwastewaters (see also Table B)

	Concentration (in mg/L)
Cadmium	0.066
Chromium (Total)	5.2
Lead	0.51
Nickel	0.32
Silver	0.072
Cyanides (Total)	Reserved

F020 -- F023 and F026 -- F028 Dioxin Containing Wastes	Concentration (Maximum)
HxCDD -- All Hexachlorodibenzo-p-dioxins	1 ppb
HxCDF -- All Hexachlorodibenzofurans	1 ppb
PeCDD -- All Pentachlorodibenzo-p-dioxins	1 ppb
PeCDF -- All Pentachlorodibenzofurans	1 ppb
TCDD -- All Tetrachlorodibenzo-p-dioxins	1 ppb
TCDF -- All Tetrachlorodibenzofurans	1 ppb
2,4,5-Trichlorophenol	0.05 ppm
2,4,6-Trichlorophenol	0.05 ppm
2,3,4,6-Tetrachlorophenol	0.10 ppm
Pentachlorophenol	0.01 ppm

K001 nonwastewaters (see also Table B)

	Concentration (in mg/L)
Lead	0.51

K022 nonwastewaters (see also Table B)

	Concentration (in mg/L)
Chromium (Total)	5.2
Nickel	0.32

K046 nonwastewaters (Nonreactive Subcategory)

	Concentration (in mg/L)
Lead	0.18

K048, K049, K050, K051 and K052 nonwastewaters (see also Table B)

	Concentration (in mg/L)
Arsenic	0.004
Chromium (Total)	1.7
Nickel	0.048
Selenium	0.025

K061 nonwastewaters (Low Zinc Subcategory-less than 15% total zinc)

	Concentration (in mg/L)
Cadmium	0.14
Chromium (Total)	5.2
Lead	0.24
Nickel	0.32

~~K061 nonwastewaters (High Zinc Subcategory-15% or greater total zinc) effective until 8/8/90~~

	~~Concentration (in mg/L)~~
~~Cadmium~~	~~0.14~~
~~Chromium (Total)~~	~~5.2~~
~~Lead~~	~~0.24~~
~~Nickel~~	~~0.32~~

~~K062 nonwastewaters~~

	~~Concentration (in mg/L)~~
~~Chromium (Total)~~	~~0.094~~
~~Lead~~	~~0.37~~

~~K071 nonwastewaters~~

	~~Concentration (in mg/L)~~
~~Mercury~~	~~0.025~~

~~K086 nonwastewaters (Solvent Washes Subcategory) see also Table B~~

	~~Concentration (in mg/L)~~
~~Chromium (Total)~~	~~0.094~~
~~Lead~~	~~0.37~~

~~K087 nonwastewaters (see also Table B)~~

	~~Concentration (in mg/L)~~
~~Lead~~	~~0.51~~

~~K101 and K102 nonwastewaters (Low Arsenic Subcategory-less than 1% Total Arsenic) (see also Table B)~~

	~~Concentration (in mg/L)~~
~~Cadmium~~	~~0.066~~
~~Chromium (Total)~~	~~5.2~~
~~Lead~~	~~0.51~~
~~Nickel~~	~~0.32~~

D, F and K Listed Wastes

Waste Code	See Also	Regulated Hazardous Constituent	CAS No. for Regulated Hazardous Constituent	Concentration (mg/l) Wastewaters	Non-wastewaters
D004	Table B	Arsenic	7440-38-2	NA	5.0 #

D005	Table B	Barium	7440-39-3	NA	100.
D006	Table B	Cadmium	7440-43-9	NA	1.0
D007	Table B	Chromium (Total)	7440-47-32	NA	5.0
D008	Table B	Lead	7439-92-1	NA	5.0
D009	(Low Mercury Subcategory--less than 260 mg/kg Mercury)				
	Tables B & D	Mercury	7439-97-6	NA	0.20
D010	Table B	Selenium	7782-49-2	NA	5.7
D011	Table B	Silver	7440-22-4	NA	5.0
F001-F005 spent solvents					
	Tables B & D	Acetone	67-64-1	0.25	0.59
		n-Butyl alcohol	71-36-3	5.0	5.0
		Carbon disulfide	75-15-0	1.05	4.81
		Carbon tetrachloride	56-23-5	0.05	0.96
		Chlorobenzene	108-90-7	0.15	0.05
		Cresols (and cresylic acid)		2.82	0.75
		Cyclohexanone	108-94-1	0.125	0.75
		1,2-Dichlorobenzene	95-50-1	0.65	0.125
		Ethyl acetate	141-78-6	0.05	0.75
		Ethylbenzene	100-41-4	0.05	0.053
		Ethyl ether	60-29-7	0.05	0.75
		Isobutanol	78-83-1	5.0	5.0
		Methanol	67-56-1	0.25	0.75
		Methylene chloride	75-9-2	0.20	0.9
		Methyl ethyl ketone	78-93-3	0.05	0.75
		Methyl isobutyl ketone	108-10-1	0.05	0.33
		Nitrobenzene	98-95-3	0.66	0.125
		Pyridine	110-86-1	1.12	0.33
		Tetrachloroethylene	127-18-4	0.079	0.05
		Toluene	108-88-3	1.12	0.33
		1,1,1-Trichloroethane	71-55-6	1.05	0.41
		1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	1.05	0.96
		Trichloroethylene	79-01-6	0.062	0.091
		Trichlorofluoromethane	75-69-4	0.05	0.96
		Xylene		0.05	0.15

F006	Table B	Cadmium	7440-43-9	NA	0.066
		Chromium (Total)	7440-47-32	NA	5.2
		Lead	7439-92-1	NA	0.51
		Nickel	7440-02-0	NA	0.32
		Silver	7440-22-4	NA	0.072
F007	Table B	Cadmium	7440-43-9	NA	0.066
		Chromium (Total)	7440-47-32	NA	5.2
		Lead	7439-92-1	NA	0.51
		Nickel	7440-02-0	NA	0.32
		Silver	7440-22-4	NA	0.072
F008	Table B	Cadmium	7440-43-9	NA	0.066
		Chromium (Total)	7440-47-32	NA	5.2
		Lead	7439-92-1	NA	0.51
		Nickel	7440-02-0	NA	0.32
		Silver	7440-22-4	NA	0.072
F009	Table B	Cadmium	7440-43-9	NA	0.066
		Chromium (Total)	7440-47-32	NA	5.2
		Lead	7439-92-1	NA	0.51
		Nickel	7440-02-0	NA	0.32
		Silver	7440-22-4	NA	0.072
F011	Table B	Cadmium	7440-43-9	NA	0.066
		Chromium (Total)	7440-47-32	NA	5.2
		Lead	7439-92-1	NA	0.51

		Nickel	7440-02-0	NA	0.32
		Silver	7440-22-4	NA	0.072
F012	Table B	Cadmium	7440-43-9	NA	0.066
		Chromium (Total)	7440-47-32	NA	5.2
		Lead	7439-92-1	NA	0.51
		Nickel	7440-02-0	NA	0.32
		Silver	7440-22-4	NA	0.072
F019	Table B	Chromium (Total)	7440-47-32	NA	0.072
F020-F023 and F026-F028 dioxin-containing wastes *					
		HxCDD-All Hexachloro-dibenzo-p-dioxins		<1. ppb	<1. ppb
		HxCDF-All Hexachloro-dibenzofurans		<1. ppb	<1. ppb
		PeCDD-All Pentachloro-dibenzo-p-dioxins		<1. ppb	<1. ppb
		PeCDF-All Pentachloro-dibenzofurans		<1. ppb	<1. ppb
		TCDD-All Tetrachloro-dibenzo-p-dioxins		<1. ppb	<1. ppb
		TCDF-All Tetrachloro-dibenzofurans		<1. ppb	<1. ppb
		2,4,5-Trichlorophenol	95-95-4	<0.05 ppm	<0.05 ppm
		2,4,6-Trichlorophenol	88-06-2	<0.05 ppm	<0.05 ppm
		2,3,4,6-Tetrachloro-phenol	58-90-2	<0.05 ppm	<0.05 ppm
		Pentachlorophenol	87-86-5	<0.05 ppm	<0.05 ppm
F024	Table B	Chromium (Total)	7440-47-32	NA	0.073
		Lead	7439-92-1	NA	0.021
		Nickel	7440-02-0	NA	0.088
F039	Table B	Antimony	7440-36-0	NA	0.23
		Arsenic	7440-38-2	NA	5.0

		Barium	7440-39-3	NA	52.
		Cadmium	7440-43-9	NA	0.066
		Chromium (Total)	7440-47-32	NA	5.2
		Lead	7439-92-1	NA	0.51
		Mercury	7439-97-6	NA	0.025
		Nickel	7440-02-0	NA	0.32
		Selenium	7782-49-2	NA	5.7
		Silver	7440-22-4	NA	0.072
K001	Table B	Lead	7439-92-1	NA	0.51
K002	Table B	Chromium (Total)	7440-47-32	NA	0.094
		Lead	7439-92-1	NA	0.37
K003	Table B	Chromium (Total)	7440-47-32	NA	0.094
		Lead	7439-92-1	NA	0.37
K004	Table B	Chromium (Total)	7440-47-32	NA	0.094
		Lead	7439-92-1	NA	0.37
K005	Table B	Chromium (Total)	7440-47-32	NA	0.094
		Lead	7439-92-1	NA	0.37
K006 (anhydrous)	Table B	Chromium (Total)	7440-47-32	NA	0.094
		Lead	7439-92-1	NA	0.37
K006 (hydrated)	Table B	Chromium (Total)	7440-47-32	NA	5.2
K007	Table B	Chromium (Total)	7440-47-32	NA	0.094

		Lead	7439-92-1	NA	0.37
K008	Table B	Chromium (Total)	7440-47-32	NA	0.094
		Lead	7439-92-1	NA	0.37
K015	Table B	Chromium (Total)	7440-47-32	NA	1.7
		Lead	7439-92-1	NA	0.2
K021	Table B	Antimony	7440-36-0	NA	0.23 #
K022	Table B	Chromium (Total)	7440-47-32	NA	5.2
		Nickel	7440-02-2	NA	0.32
K028	Table B	Chromium (Total)	7440-47-32	NA	0.073
		Lead	7439-92-1	NA	0.021
		Nickel	7440-02-2	NA	0.088
K031	Table B	Arsenic	7440-38-2	NA	5.6 #
K046	Table B	Lead	7439-92-1	NA	0.18
K048	Table B	Chromium (Total)	7440-47-32	NA	1.7
		Nickel	7440-02-2	NA	0.20
K049	Table B	Chromium (Total)	7440-47-32	NA	1.7
		Nickel	7440-02-2	NA	0.20
K050	Table B	Chromium (Total)	7440-47-32	NA	1.7
		Nickel	7440-02-2	NA	0.20
K051	Table B	Chromium (Total)	7440-47-32	NA	1.7

		Nickel	7440-02-2	NA	0.20
K052	Table B	Chromium (Total)	7440-47-32	NA	1.7
		Nickel	7440-02-2	NA	0.20
K061 (Low Zinc Subcategory--less than 15% Total Zinc)					
	Table B	Cadmium	7440-43-9	NA	0.14
		Chromium (Total)	7440-47-32	NA	5.2
		Lead	7439-92-1	NA	0.24
		Nickel	7440-02-2	NA	0.32
K062	Table B	Chromium (Total)	7440-47-32	NA	0.094
		Lead	7439-92-1	NA	0.37
K069 (Calcium Sulfate Subcategory)					
	Tables B & D	Cadmium	7440-43-9	NA	0.14
		Lead	7439-92-1	NA	0.24
K071 (Low Mercury Subcategory--less than 16 mg/kg Mercury)					
	Table B	Mercury	7439-97-6	NA	0.025
K083	Table B	Nickel	7440-02-2	NA	0.088
K084	Table B	Arsenic	7440-38-2	NA	5.6 #
K086	Table B	Chromium (Total)	7440-47-32	NA	0.094
		Lead	7439-92-1	NA	0.37
K087	Table B	Lead	7439-92-1	NA	0.51
K100	Table B	Cadmium	7440-43-9	NA	0.066
		Chromium (Total)	7440-47-32	NA	5.2

		Lead	7439-92-1	NA		0.51
K101	Table B	Arsenic	7440-38-2	NA		5.6 #
K102	Table B	Arsenic	7440-38-2	NA		5.6 #
K106 (Low Mercury Subcategory--less than 260 mg/kg Mercury--residues from RMERC)						
	Tables B & D	Mercury	7439-97-6	NA		0.20
K106 (Low Mercury Subcategory--less than 260 mg/kg Mercury--that are not residues from RMERC)						
	Tables B & D	Mercury	7439-97-6	NA	A	0.20
K115	Table B	Nickel	7440-02-2	NA		0.32

#--These treatment standards have been based on EP Leachate analysis but this does not preclude the use of TCLP analysis.

*--These waste codes are not subcategorized into wastewaters and nonwastewaters.

NA--Not Applicable.

P and U Listed Wastes

Waste Code	See Also	Commercial Chemical Name	Regulated Hazardous Constituent	CAS No. for Regulated Hazardous Constituent	Concentration (mg/l) Wastewaters	Non-wastewaters
P010	Table B	Arsenic acid	Arsenic	7440-38-2	NA	5.6
P011	Table B	Arsenic pentoxide	Arsenic	7440-38-2	NA	5.6
P012	Table B	Arsenic trioxide	Arsenic	7440-38-2	NA	5.6
P013	Table B	Barium cyanide	Barium	7440-39-3	NA	52.

P036	Table B	Dichloro-phenyl-arsine	Arsenic	7440-38-2	NA	5.6
P038	Table B	Diethyl-arsine	Arsenic	7440-38-2	NA5	.6
P065 (Low Mercury Subcategory--less than 260 mg/kg Mercury--residues from RMERC)						
	Tables B & D	Mercury fulminate	Mercury	7439-97-6	NA	0.20
P065 (Low Mercury Subcategory--less than 260 mg/kg Mercury--incinerator residues (and are not residues from RMERC))						
	Tables B & D	Mercury fulminate	Mercury	7439-97-6	NA	0.025
P073	Table B	Nickel carbonyl	Nickel	7440-02-2	NA	0.32
P074	Table B	Nickel cyanide	Nickel	7440-02-2	NA	0.32
P092 (Low Mercury Subcategory -- less than 260 mg/kg Mercury residues from RMERC)						
	Tables B & D	Phenyl mercury acetate	Mercury	7439-97-6	NA	0.20
P092 (Low Mercury Subcategory--less than 260 mg/kg Mercury--incinerator residues (and are not residues from RMERC))						
	Tables B & D	Phenyl mercury acetate	Mercury	7439-97-6	NA	0.025
P099	Table B	Potassium silver cyanide	Silver	7440-22-4	NA	0.072
P103	Table B	Seleno-urea	Selenium	7782-49-2	NA	5.7
P104	Table B	Silver cyanide	Silver	7440-22-4	NA	0.072
P110	Table B	Tetraethyl lead	Lead	7439-92-1	NA	0.51
P114	Table B	Thallium selenite	Selenium	7782-49-2	NA	5.7

U032	Table B	Calcium chromate	Chromium (Total)	7440-47-32	NA	0.094
U051	Table B	Creosote	Lead	7439-92-1	NA	0.51
U136	Table B	Cacodylic acid	Arsenic	7440-38-2	NA	5.6
U144	Table B	Lead acetate	Lead	7439-92-1	NA	0.51
U145	Table B	Lead phosphate	Lead	7439-92-1	NA	0.51
U146	Table B	Lead subacetate	Lead	7439-92-1	NA	0.51
U151 (Low Mercury Subcategory--less than 260 mg/kg Mercury--residues from RMERC)						
	Tables B & D	Mercury	Mercury	7439-97-6	NA	0.20
U151 (Low Mercury Subcategory--less than 260 mg/kg Mercury--that are not residues from RMERC)						
	Tables B & D	Mercury	Mercury	7439-97-6	NA	0.025
U204	Table B	Selenium dioxide	Selenium	7782-49-2	NA	5.7
U205	Table B	Selenium sulfide	Selenium	7782-49-2	NA	5.7

--These treatment standards have been based on EP Leachate analysis but this does not preclude the use of TCLP analysis.

*--These waste codes are not subcategorized into wastewaters and nonwastewaters.

NA--Not Applicable.

Source: Amended at 15 Ill. Reg. , effective

Section 728.Table B Constituent Concentrations in Waste (CCW)

~~F001, F002, F003, F004 and F005 wastewaters (Pharmaceutical Industry)~~

	~~Concentration (in mg/L)~~
~~Methylene chloride~~	~~0.44~~

~~F006 nonwastewaters (see also Table A)~~

	~~Concentration (in mg/kg)~~
~~Cyanides (Total)~~	~~Reserved~~

~~K001 nonwastewaters (see also Table A)~~

	~~Concentration (in mg/kg)~~
~~Naphthalene~~	~~8.0~~
~~Pentachlorophenol~~	~~37.~~
~~Phenanthrene~~	~~8.0~~
~~Pyrene~~	~~7.3~~
~~Toluene~~	~~0.14~~
~~Xylenes~~	~~0.16~~

~~K001 wastewaters~~

	~~Concentration (in mg/L)~~
~~Naphthalene~~	~~0.15~~
~~Pentachlorophenol~~	~~0.88~~
~~Phenanthrene~~	~~0.15~~
~~Pyrene~~	~~0.14~~
~~Toluene~~	~~0.14~~
~~Xylenes~~	~~0.16~~
~~Lead~~	~~0.037~~

~~K015 wastewaters~~

	~~Concentration (in mg/L)~~
~~Anthracene~~	~~1.0~~
~~Benzal chloride~~	~~0.28~~
~~Benzo (b or k) fluoranthene~~	~~0.29~~
~~Phenanthrene~~	~~0.27~~
~~Toluene~~	~~0.15~~
~~Chromium (Total)~~	~~0.32~~
~~Nickel~~	~~0.44~~

~~K016 nonwastewaters~~

	~~Concentration (in mg/kg)~~
~~Hexachlorobenzene~~	~~28.~~
~~Hexachlorobutadiene~~	~~5.6~~
~~Hexachlorocyclopentadiene~~	~~5.6~~
~~Hexachloroethane~~	~~28.~~
~~Tetrachloroethene~~	~~6.0~~

~~K016 wastewaters~~

	~~Concentration (in mg/L)~~
~~Hexachlorobenzene~~	~~0.033~~
~~Hexachlorobutadiene~~	~~0.007~~
~~Hexachlorocyclopentadiene~~	~~0.007~~
~~Hexachloroethane~~	~~0.033~~
~~Tetrachloroethene~~	~~0.007~~

~~K018 nonwastewaters~~

	~~Concentration (in mg/kg)~~
~~Chloroethane~~	~~6.0~~
~~1,1-Dichloroethane~~	~~6.0~~
~~1,2-Dichloroethane~~	~~6.0~~
~~Hexachlorobenzene~~	~~28.~~
~~Hexachlorobutadiene~~	~~5.6~~
~~Hexachloroethane~~	~~28.~~
~~Pentachloroethane~~	~~5.6~~
~~1,1,1-Trichloroethane~~	~~6.0~~

~~K018 wastewaters~~

	~~Concentration (in mg/L)~~
~~Chloroethane~~	~~0.007~~
~~Chloromethane~~	~~0.007~~
~~1,1-Dichloroethane~~	~~0.007~~
~~1,2-Dichloroethane~~	~~0.007~~
~~Hexachlorobenzene~~	~~0.033~~
~~Hexachlorobutadiene~~	~~0.007~~
~~Pentachloroethane~~	~~0.007~~
~~1,1,1-Trichloroethane~~	~~0.007~~

~~K019 nonwastewaters~~

	~~Concentration (in mg/kg)~~
~~Bis(2-chloroethyl)ether~~	~~5.6~~
~~Chlorobenzene~~	~~6.0~~
~~Chloroform~~	~~6.0~~
~~1,2-Dichloroethane~~	~~6.0~~
~~Hexachloroethane~~	~~28.~~
~~Naphthalene~~	~~5.6~~
~~Phenanthrene~~	~~5.6~~
~~Tetrachloroethene~~	~~6.0~~
~~1,2,4-Trichlorobenzene~~	~~19.~~
~~1,1,1-Trichloroethane~~	~~6.0~~

~~K019 wastewaters~~

	~~Concentration (in mg/L)~~
~~Bis(2-chloroethyl)ether~~	~~0.007~~
~~Chlorobenzene~~	~~0.006~~
~~Chloroform~~	~~0.007~~
~~p-Dichlorobenzene~~	~~0.008~~
~~1,2-Dichloroethane~~	~~0.007~~
~~Fluorene~~	~~0.007~~
~~Hexachloroethane~~	~~0.033~~
~~Naphthalene~~	~~0.007~~
~~Phenanthrene~~	~~0.007~~
~~1,2,4,5-Tetrachlorobenzene~~	~~0.017~~
~~Tetrachloroethene~~	~~0.007~~
~~1,2,4-Trichlorobenzene~~	~~0.023~~
~~1,1,1-Trichloroethane~~	~~0.007~~

~~K020 nonwastewaters~~

	~~Concentration (in mg/kg)~~
~~1,2-Dichloroethane~~	~~6.0~~
~~1,1,2,2-Tetrachloroethane~~	~~5.6~~
~~Tetrachloroethene~~	~~6.0~~

~~K020 wastewaters~~

	~~Concentration (in mg/L)~~
~~1,2-Dichloroethane~~	~~0.007~~
~~1,1,2,2-Tetrachloroethane~~	~~0.007~~
~~Tetrachloroethene~~	~~0.007~~

~~K022 nonwastewaters (see also Table A)~~

	~~Concentration (in mg/kg)~~
~~Acetophenone~~	~~19.~~
~~Sum of Diphenylamine and Diphenylnitrosamine~~	~~13.~~
~~Phenol~~	~~12.~~
~~Toluene~~	~~0.034~~

~~K024 nonwastewaters~~

	~~Concentration (in mg/kg)~~
~~Phthalic acid~~	~~28.~~

~~K024 wastewaters~~

	~~Concentration (in mg/L)~~
~~Phthalic acid~~	~~0.54~~

~~K030 nonwastewaters~~

	~~Concentration (in mg/kg)~~
~~Hexachlorobutadiene~~	~~5.6~~
~~Hexachloroethane~~	~~28.~~
~~Hexachloropropene~~	~~19.~~
~~Pentachlorobenzene~~	~~28.~~
~~Pentachloroethane~~	~~5.6~~
~~1,2,4,5-Tetrachlorobenzene~~	~~14.~~
~~Tetrachloroethene~~	~~6.0~~
~~1,2,4-Trichlorobenzene~~	~~19.~~

~~K030 wastewaters~~

	~~Concentration (in mg/L)~~
~~o-Dichlorobenzene~~	~~0.008~~
~~p-Dichlorobenzene~~	~~0.008~~
~~Hexachlorobutadiene~~	~~0.007~~
~~Hexachloroethane~~	~~0.033~~
~~Pentachloroethane~~	~~0.007~~
~~1,2,4,5-Tetrachlorobenzene~~	~~0.017~~
~~Tetrachloroethene~~	~~0.007~~
~~1,2,4-Trichlorobenzene~~	~~0.023~~

~~K037 nonwastewaters~~

	~~Concentration (in mg/kg)~~
~~Disulfoton~~	~~0.1~~
~~Toluene~~	~~28.~~

~~K037 wastewaters~~

	~~Concentration (in mg/L)~~
~~Disulfoton~~	~~0.003~~
~~Toluene~~	~~0.028~~

~~K048 nonwastewaters (see also Table A)~~

	~~Concentration (in mg/kg)~~
~~Benzene~~	~~9.5~~
~~Benzo(a)pyrene~~	~~0.84~~
~~Bis(2-ethylhexyl)phthalate~~	~~37.~~
~~Chrysene~~	~~2.2~~
~~Di-n-butyl phthalate~~	~~4.2~~
~~Ethylbenzene~~	~~67.~~
~~Naphthalene~~	~~Reserved~~
~~Phenanthrene~~	~~7.7~~
~~Phenol~~	~~2.7~~
~~Pyrene~~	~~2.0~~
~~Toluene~~	~~9.5~~
~~Xylenes~~	~~Reserved~~
~~Cyanides (Total)~~	~~1.8~~

~~K048 wastewaters~~

	~~Concentration (in mg/L)~~
~~Benzene~~	~~0.011~~
~~Benzo(a)pyrene~~	~~0.047~~
~~Bis(2-ethylhexyl)phthalate~~	~~0.043~~
~~Chrysene~~	~~0.043~~
~~Di-n-butyl phthalate~~	~~0.060~~
~~Ethylbenzene~~	~~0.011~~
~~Fluorene~~	~~0.050~~
~~Naphthalene~~	~~0.033~~
~~Phenanthrene~~	~~0.039~~
~~Phenol~~	~~0.047~~
~~Pyrene~~	~~0.045~~
~~Toluene~~	~~0.011~~
~~Xylenes~~	~~0.011~~
~~Chromium (Total)~~	~~0.20~~
~~Lead~~	~~0.37~~

~~K049 nonwastewaters (see also Table A)~~

	~~Concentration (in mg/kg)~~
~~Anthracene~~	~~6.2~~
~~Benzene~~	~~9.5~~
~~Benzo(a)pyrene~~	~~0.84~~
~~Bis(2-ethylhexyl)phthalate~~	~~37.~~
~~Chrysene~~	~~2.2~~
~~Ethylbenzene~~	~~67.~~
~~Naphthalene~~	~~(Reserved)~~
~~Phenanthrene~~	~~7.7~~
~~Phenol~~	~~2.7~~
~~Pyrene~~	~~2.0~~
~~Toluene~~	~~9.5~~
~~Xylenes~~	~~Reserved~~
~~Cyanides (Total)~~	~~1.8~~

~~K049 wastewaters~~

	~~Concentration (in mg/L)~~
~~Anthracene~~	~~0.039~~
~~Benzene~~	~~0.011~~
~~Benzo(a)pyrene~~	~~0.047~~
~~Bis(2-ethylhexyl)phthalate~~	~~0.043~~
~~Carbon disulfide~~	~~0.011~~
~~Chrysene~~	~~0.043~~
~~2,4-Dimethylphenol~~	~~0.033~~
~~Ethylbenzene~~	~~0.011~~
~~Naphthalene~~	~~0.033~~
~~Phenanthrene~~	~~0.039~~
~~Phenol~~	~~0.047~~
~~Pyrene~~	~~0.045~~
~~Toluene~~	~~0.011~~
~~Xylenes~~	~~0.011~~
~~Chromium (Total)~~	~~0.20~~
~~Lead~~	~~0.037~~

~~K050 nonwastewaters (see also Table A)~~

	~~Concentration (in mg/kg)~~
~~Benzo(a)pyrene~~	~~0.84~~
~~Phenol~~	~~2.7~~
~~Cyanides (Total)~~	~~1.8~~

K050 wastewaters

	Concentration (in mg/L)
Benzo(a)pyrene	0.047
Phenol	0.047
Chromium (Total)	0.20
Lead	0.037

K051 nonwastewaters (see also Table A)

	Concentration (in mg/kg)
Anthracene	6.2
Benzene	9.5
Benzo(a)anthracene	1.4
Benzo(a)pyrene	0.84
Bis(2-ethylhexyl)phthalate	37.
Chrysene	2.2
Di-n-butyl phthalate	4.2
Ethylbenzene	67.
Naphthalene	Reserved
Phenanthrene	7.7
Phenol	2.7
Pyrene	2.0
Toluene	9.5
Xylenes	Reserved
Cyanides (Total)	1.8

K051 wastewaters

	Concentration (in mg/L)
Acenaphthene	0.050
Anthracene	0.039
Benzene	0.011
Benzo(a)anthracene	0.043
Benzo(a)pyrene	0.047
Bis(2-ethylhexyl) phthalate	0.043
Chrysene	0.043
Di-n-butyl phthalate	0.060
Ethylbenzene	0.011
Fluorene	0.050
Naphthalene	0.033
Phenanthrene	0.039
Phenol	0.047
Pyrene	0.045
Toluene	0.011
Xylenes	0.011
Chromium (Total)	0.20
Lead	0.037

~~K052 nonwastewaters (see also Table A)~~

	~~Concentration (in mg/kg)~~
~~Benzene~~	~~9.5~~
~~Benzo(a)pyrene~~	~~0.84~~
~~o-Cresol~~	~~2.2~~
~~p-Cresol~~	~~0.90~~
~~Ethylbenzene~~	~~67.~~
~~Naphthalene~~	~~Reserved~~
~~Phenanthrene~~	~~7.7~~
~~Phenol~~	~~2.7~~
~~Toluene~~	~~9.5~~
~~Xylenes~~	~~Reserved~~
~~Cyanides (Total)~~	~~1.8~~

~~K052 wastewaters~~

	~~Concentration (in mg/L)~~
~~Benzene~~	~~0.011~~
~~Benzo(a)pyrene~~	~~0.047~~
~~o-Cresol~~	~~0.011~~
~~p-Cresol~~	~~0.011~~
~~2,4-Dimethylphenol~~	~~0.033~~
~~Ethylbenzene~~	~~0.011~~
~~Naphthalene~~	~~0.033~~
~~Phenanthrene~~	~~0.039~~
~~Phenol~~	~~0.047~~
~~Toluene~~	~~0.011~~
~~Xylenes~~	~~0.011~~
~~Chromium (Total)~~	~~0.20~~
~~Lead~~	~~0.037~~

~~K062 wastewaters~~

	~~Concentration (in mg/L)~~
~~Chromium (Total)~~	~~0.32~~
~~Lead~~	~~0.04~~
~~Nickel~~	~~0.44~~

~~K071 wastewaters~~

	~~Concentration (in mg/L)~~
~~Mercury~~	~~0.030~~

~~K086 nonwastewaters-Solvent Washes Subcategory (see also Table A)~~

	~~Concentration (in mg/kg)~~
~~Acetone~~	~~0.37~~
~~bis(2-ethylhexyl) phthalate~~	~~0.49~~
~~n-Butyl alcohol~~	~~0.37~~
~~Cyclohexanone~~	~~0.49~~
~~1,2-Dichlorobenzene~~	~~0.49~~
~~Ethyl acetate~~	~~0.37~~
~~Ethyl benzene~~	~~0.031~~
~~Methanol~~	~~0.37~~
~~Methylene chloride~~	~~0.037~~
~~Methyl ethyl ketone~~	~~0.37~~
~~Methyl isobutyl ketone~~	~~0.37~~
~~Naphthalene~~	~~0.49~~
~~Nitrobenzene~~	~~0.49~~
~~Toluene~~	~~0.031~~
~~1,1,1,-Trichloroethane~~	~~0.044~~
~~Trichloroethylene~~	~~0.031~~
~~Xylenes~~	~~0.015~~

~~K086 wastewaters-Solvent Washes Subcategory~~

	~~Concentration (in mg/L)~~
~~Acetone~~	~~0.015~~
~~bis(2-ethylhexyl)phthalate~~	~~0.044~~
~~n-Butyl alcohol~~	~~0.031~~
~~Cyclohexanone~~	~~0.022~~
~~1,2-Dichlorobenzene~~	~~0.044~~
~~Ethyl acetate~~	~~0.031~~
~~Ethyl benzene~~	~~0.015~~
~~Methanol~~	~~0.031~~
~~Methylene chloride~~	~~0.031~~
~~Methyl ethyl ketone~~	~~0.031~~
~~Methyl isobutyl ketone~~	~~0.031~~
~~Naphthalene~~	~~0.044~~
~~Nitrobenzene~~	~~0.044~~
~~Toluene~~	~~0.029~~
~~1,1,1,-Trichloroethane~~	~~0.031~~
~~Trichloroethylene~~	~~0.029~~
~~Xylenes~~	~~0.015~~
~~Chromium (Total)~~	~~0.32~~
~~Lead~~	~~0.037~~

K087 nonwastewaters (see also Table A)

	Concentration (in mg/kg)
Acenaphthalene	3.4
Benzene	0.071
Chrysene	3.4
Fluoranthene	3.4
Indeno(1,2,3-cd)pyrene	3.4
Naphthalene	3.4
Phenanthrene	3.4
Toluene	0.65
Xylenes	0.070

K087 wastewaters

	Concentration (in mg/L)
Acenaphthalene	0.028
Benzene	0.014
Chrysene	0.028
Fluoranthene	0.028
Indeno (1,2,3-cd) pyrene	0.028
Naphthalene	0.028
Phenanthrene	0.028
Toluene	0.008
Xylenes	0.014
Lead	0.037

K099 nonwastewaters

	Concentration (in mg/kg)
2,4-Dichlorophenoxyacetic acid	1.0
Hexachlorodibenzo-p-dioxins	0.001
Hexachlorodibenzofurans	0.001
Pentachlorodibenzo-p-dioxins	0.001
Pentachlorodibenzofurans	0.001
Tetrachlorodibenzo-p-dioxins	0.001
Tetrachlorodibenzofurans	0.001

K099 wastewaters

	Concentration (in mg/L)
2,4-Dichlorophenoxyacetic acid	1.0
Hexachlorodibenzo-p-dioxins	0.001
Hexachlorodibenzofurans	0.001
Pentachlorodibenzo-p-dioxins	0.001
Pentachlorodibenzofurans	0.001
Tetrachlorodibenzo-p-dioxins	0.001
Tetrachlorodibenzofurans	0.001

~~K101 nonwastewaters (Low Arsenic Subcategory-less than 1% total arsenic) (see also Table A)~~

	~~Concentration (in mg/kg)~~
~~ortho-Nitroaniline~~	~~14.~~

~~K101 wastewaters~~

	~~Concentration (in mg/L)~~
~~ortho-Nitroaniline~~	~~0.27~~
~~Arsenic~~	~~2.0~~
~~Cadmium~~	~~0.24~~
~~Lead~~	~~0.11~~
~~Mercury~~	~~0.027~~

~~K102 nonwastewaters (Low Arsenic Subcategory-less than 1% total arsenic) (see also Table A)~~

	~~Concentration (in mg/kg)~~
~~ortho-Nitrophenol~~	~~13.~~

~~K102 wastewaters~~

	~~Concentration (in mg/L)~~
~~ortho-Nitrophenol~~	~~0.028~~
~~Arsenic~~	~~2.0~~
~~Cadmium~~	~~0.24~~
~~Lead~~	~~0.11~~
~~Mercury~~	~~0.027~~

~~K103 nonwastewaters~~

	~~Concentration (in mg/kg)~~
~~Aniline~~	~~5.6~~
~~Benzene~~	~~6.0~~
~~2,4-Dinitrophenol~~	~~5.6~~
~~Nitrobenzene~~	~~5.6~~
~~Phenol~~	~~5.6~~

~~K103 wastewaters~~

	~~Concentration (in mg/L)~~
~~Aniline~~	~~4.5~~
~~Benzene~~	~~0.15~~
~~2,4-Dinitrophenol~~	~~0.61~~
~~Nitrobenzene~~	~~0.073~~
~~Phenol~~	~~1.4~~

~~K104 nonwastewaters~~

	~~Concentration (in mg/kg)~~
~~Aniline~~	~~5.6~~
~~Benzene~~	~~6.0~~
~~2,4-Dinitrophenol~~	~~5.6~~
~~Nitrobenzene~~	~~5.6~~
~~Phenol~~	~~5.6~~
~~Cyanides (Total)~~	~~1.8~~

~~K104 wastewaters~~

	~~Concentration (in mg/L)~~
~~Aniline~~	~~4.5~~
~~Benzene~~	~~0.15~~
~~2,4-Dinitrophenol~~	~~0.61~~
~~Nitrobenzene~~	~~0.073~~
~~Phenol~~	~~1.4~~
~~Cyanides (Total)~~	~~2.7~~

~~No Land Disposal for:~~

~~K004 Nonwastewaters~~	~~(Based on No Generation)~~
~~K008 Nonwastewaters~~	~~(Based on No Generation)~~
~~K015 Nonwastewaters~~	~~(Based on No Ash)~~
~~K021 Nonwastewaters~~	~~(Based on No Generation)~~
~~K025 Nonwastewaters~~	~~(Based on No Generation)~~
~~K036 Nonwastewaters~~	~~(Based on No Generation)~~
~~K044~~	~~(Based on Reactivity)~~
~~K045~~	~~(Based on Reactivity)~~
~~K047~~	~~(Based on Reactivity)~~
~~K060 Nonwastewaters~~	~~(Based on No Generation)~~
~~K061 Nonwastewaters-High Zinc Subcategory (greater than or equal to 15% total zinc)~~	~~(Based on Recycling): effective 8/8/90~~
~~K069 Nonwastewaters-Non-Calcium Sulfate Subcategory~~	~~(Based on Recycling)~~
~~K083 Nonwastewaters-No Ash Subcategory (less than 0.01% total ash)~~	~~(Based on No Ash)~~
~~K100 Nonwastewaters~~	~~(Based on No Generation)~~

D, F and K Listed Wastes

Waste Code	See Also	Regulated Hazardous Constituent	CAS No. for Regulated Hazardous Constituent	Concentration (mg/l) Wastewaters	Non-wastewaters
D003 (Reactive cyanides subcategory--based on Cyanides (Amenable) 35 Ill. Adm. Code 721.123(a)(5))					
		Cyanides (Total)	57-12-5	Res.	# 590.
D004	Table A	Arsenic	7440-38-2	5.0	NA
D005	Table A	Barium	7440-39-3	100.	NA
D006	Table A	Cadmium	7440-43-9	1.0	NA
D007	Table A	Chromium (Total)	7440-47-32	5.0	NA
D008	Table A	Lead	7439-92-1	5.0	NA
D009	Table A	Mercury	7439-97-6	0.20	NA
D010	Table A	Selenium	7782-49-2	1.0	NA
D011	Table A	Silver	7440-22-4	5.0	NA
D012	Table D	Endrin	720-20-8	NA	0.13
D013	Table D	Lindane	58-89-9	NA	0.066
D014	Table D	Methoxychlor	72-43-5	NA	0.18
D015	Table D	Toxaphene	8001-35-1	NA	1.3

D016	Table D	2,4-D	94-75-7	NA	10.0
D017	Table D	2,4,5-TP Silvex	93-76-5	NA	7.9
F001-F005 spent solvents					
	Tables A & D	1,1,2-Trichloroethane	71-55-6	0.030	a 7.6
		Benzene	71-43-2	0.070	a 3.7
F001-F005 spent solvents (Pharmaceutical industry wastewater subcategory)					
		Methylene chloride	75-09-2	0.44	NA
F006	Table A	Cyanides (Total)	57-12-5	1.2	590.
		Cyanides (Amenable)	57-12-5	0.86	30.
		Cadmium	7440-43-9	1.6	NA
		Chromium	7440-47-32	0.32	NA
		Lead	7439-92-1	0.040	NA
		Nickel	7440-02-2	0.44	NA
F007	Table A	Cyanides (Total)	57-12-5	1.9	590.
		Cyanides (Amenable)	57-12-5	0.1	30.
		Chromium (Total)	7440-47-32	0.32	NA
		Lead	7439-92-1	0.04	NA
		Nickel	7440-02-2	0.44	NA
F008	Table A	Cyanides (Total)	57-12-5	1.9	590.
		Cyanides (Amenable)	57-12-5	0.13	30.
		Chromium	7440-47-32	0.32	NA
		Lead	7439-92-1	0.04	NA
		Nickel	7440-02-2	0.44	NA
F009	Table A	Cyanides (Total)	57-12-5	1.95	90.
		Cyanides (Amenable)	57-12-5	0.1	30.
		Chromium	7440-47-32	0.32	NA

		Lead	7439-92-1	0.04	NA
		Nickel	7440-02-2	0.44	NA
F010		Cyanides (Total)	57-12-5	1.9	1.5
		Cyanides (Amenable)	57-12-5	0.1	NA
F011	Table A	Cyanides (Total)	57-12-5	1.9	110.
		Cyanides (Amenable)	57-12-5	0.1	9.1
		Chromium (Total)	7440-47-32	0.32	NA
		Lead	7439-92-1	0.04	NA
		Nickel	7440-02-2	0.44	NA
F012	Table A	Cyanides (Total)	57-12-5	1.9	110.
		Cyanides (Amenable)	57-12-5	0.1	9.1
		Chromium (Total)	7440-47-32	0.32	NA
		Lead	7439-92-1	0.04	NA
		Nickel	7440-02-2	0.44	NA
F019	Table A	Cyanides (Total)	57-12-5	1.2	(R) 590.
		Cyanides (Amenable)	57-12-5	0.86	(R) 30.
		Chromium (Total)	7440-47-32	0.32	NA
F024	(Note: F024 organic standards must be treated via incineration (INCIN))				
	Tables A & D	2-Chloro-1,3-butadiene	126-99-8	a 0.28	a 0.28
		3-Chloropropene	107-05-1	a 0.28	a 0.28
		1,1-Dichloroethane	75-34-3	a 0.014	a 0.014
		1,2-Dichloroethane	107-06-2	a 0.014	a 0.014
		1,2-Dichloropropane	78-87-5	a 0.014	a 0.014
		cis-1,3-Dichloropropene	10061-01-5	a 0.014	a 0.014
		trans-1,3-Dichloropropene	10061-02-6	a 0.014	a 0.014
		Bis(2-ethylhexyl)-phthalate	117-81-7	a 0.036	a 1.8
		Hexachloroethane	67-72-1	a 0.036	a 1.8
		Chromium (Total)	7440-47-32	0.35	NA

	Nickel	7440-02-2		0.47		NA
F025 (Light ends subcategory)						
	Chloroform	67-63-3	s	0.046	a	6.2
	1,2-Dichloroethane	107-06-2	s	0.21	a	6.2
	1,1-Dichloroethylene	75-35-4	s	0.025	a	6.2
	Methylene chloride	75-9-2	s	0.089	a	31.
	Carbon tetrachloride	56-23-5	s	0.057	a	6.2
	1,1,2-Trichloroethane	79-00-5	s	0.054	a	6.2
	Trichloroethylene	79-01-6	s	0.054	s	5.6
	Vinyl chloride	75-01-4	s	0.27	a	33.
F025 (Spent filters/aids and desiccants subcategory)						
	Chloroform	67-66-3	s	0.046	a	6.2
	Methylene chloride	75-9-2	s	0.089	a	31.
	Carbon tetrachloride	56-23-5	s	0.057	a	6.2
	1,1,2-Trichloroethane	79-00-5	s	0.054	a	6.2
	Trichloroethylene	79-01-6	s	0.054	s	5.6
	Vinyl chloride	75-01-4	s	0.27	a	33.
	Hexachlorobenzene	118-74-1	s	0.055	a	37.
	Hexachlorobutadiene	87-68-3	s	0.055	a	28.
	Hexachloroethane	67-72-1	s	0.055	a	30.
F039 Table A	Acetone	67-64-1	s	0.28	a	160.
	Acenaphthalene	208-96-8	s	0.059	a	3.4
	Acenaphthene	83-32-9	s	0.059	a	4.0
	Acetonitrile	75-05-8	s	0.17		NA
	Acetophenone	96-86-2	s	0.010	a	9.7
	2-Acetylaminofluorene	53-96-3	s	0.059	a	140.
	Acrylonitrile	107-13-1	s	0.24	a	84.
	Aldrin	309-00-2	s	0.021	a	0.068
	4-Aminobiphenyl	92-67-1	s	0.13		NA
	Aniline	62-53-3	s	0.81	a	14.
	Anthracene	120-12-7	s	0.059	a	4.0
	Aroclor 1016	12674-11-2	s	0.013	a	0.92
	Aroclor 1221	11104-28-2	s	0.014	a	0.92
	Aroclor 1232	11141-16-5	s	0.013	a	0.92
	Aroclor 1242	53469-21-9	s	0.017	a	0.92
	Aroclor 1248	12672-29-6	s	0.013	a	0.92
	Aroclor 1254	11097-69-1	s	0.014	a	1.8
	Aroclor 1260	11096-82-5	s	0.014	a	1.8
	alpha-BHC	319-84-6	s	0.00014	a	0.066
	beta-BHC	319-85-7	s	0.00014	a	0.066

delta-BHC	319-86-8	s	0.023	a	0.066
gamma-BHC	58-89-9	s	0.0017	a	0.066
Benzene	71-43-2	s	0.14	a	36.
Benzo(a)anthracene	56-55-3	s	0.059	a	8.2
Benzo(b)fluoranthene	205-99-2	s	0.055	a	3.4
Benzo(k)fluoranthene	207-08-9	s	0.059	a	3.4
Benzo(g,h,i)perylene	191-24-2	s	0.0055	a	1.5
Benzo(a)pyrene	50-32-8	s	0.061	a	8.2
Bromodichloromethane	75-27-4	s	0.35	a	15.
Bromoform	75-25-2	s	0.63	a	15.
Bromomethane (methyl bromide)	74-63-9	s	0.11	a	15.
4-Bromophenyl phenyl ether	101-55-3	s	0.055	a	15.
n-Butyl alcohol	71-36-3	s	5.6	a	2.6
Butyl benzyl phthalate	85-68-7	s	0.017	a	7.9
2-sec-Butyl-4,6-dinitrophenol	88-85-7	s	0.066	a	2.5
Carbon tetrachloride	56-23-5	s	0.057	a	5.6
Carbon disulfide	75-15-0	s	0.014		NA
Chlordane	57-74-9	s	0.0033	a	0.13
p-Chloroaniline	106-47-8	s	0.46	a	16.
Chlorobenzene	108-90-7	s	0.057	a	5.7
Chlorobenzilate	510-15-6	s	0.10		NA
Chlorodibromomethane	124-48-1	s	0.057	a	16.
Chloroethane	75-00-3	s	0.27	a	6.0
bis(2-Chloro-ethoxy)methane	111-91-1	s	0.036	a	7.2
bis(2-Chloroethyl) ether	111-44-4	s	0.033	a	7.2
2-Chloroethyl vinyl ether		s	0.057		NA
Chloroform	67-66-3	s	0.046	a	5.6
bis(2-Chloroisopropyl) ether	39638-32-9	s	0.055	a	7.2
p-Chloro-m-cresol	59-50-7	s	0.018	a	14.
Chloromethane (Methyl chloride)	74-87-3	s	0.19	a	33.
2-Chloronaphthalene	91-8-7	s	0.055	a	5.6
2-Chlorophenol	95-57-8	s	0.044	a	5.7
3-Chloropropene	107-05-1	s	0.036	a	28.
Chrysene	218-01-9	s	0.059	a	8.2
o-Cresol	95-48-7	s	0.11	a	5.6
Cresol (m- and p-isomers)		s	0.77	a	3.2
Cyclohexanone	108-94-1	s	0.36		NA
1,2-Dibromo-3-chloro-propane	96-12-8	s	0.11	a	15.
1,2-Dibromoethane (Ethylene dibromide)	106-93-4	s	0.028	a	15.
Dibromomethane	74-95-3	s	0.11	a	15.

2,4-Dichloro-phenoxyacetic acid (2,4-D)	94-75-7	s	0.72	a	10.
o,p'-DDD	53-19-0	s	0.023	a	0.087
p,p'-DDD	72-54-8	s	0.023	a	0.087
o,p'-DDE	3424-82-6	s	0.031	a	0.087
p,p'-DDE	72-55-9	s	0.031	a	0.087
o,p'-DDT	789-02-6	s	0.0039	a	0.087
p,p'-DDT	50-29-3	s	0.0039	a	0.087
Dibenzo(a,h)anthracene	53-70-3	s	0.055	a	8.2
m-Dichlorobenzene	541-73-1	s	0.036	a	6.2
o-Dichlorobenzene	95-50-1	s	0.088	a	6.2
p-Dichlorobenzene	106-46-7	s	0.090	a	6.2
Dichlorodifluoro-methane	75-71-8	s	0.23	a	7.2
1,1-Dichloroethane	75-34-3	s	0.059	a	7.2
1,2-Dichloroethane	107-06-2	s	0.21	a	7.2
1,1-Dichloroethylene	75-35-4	s	0.025	a	33.
trans-1,2-Dichloro-ethene		s	0.054	a	33.
2,4-Dichlorophenol	120-83-2	s	0.044	a	14.
2,6-Dichlorophenol	87-65-0	s	0.044	a	14.
1,2-Dichloropropane	78-87-5	s	0.85	a	18.
cis-1,3-Dichloro-propene	10061-01-5	s	0.036	a	18.
trans-1,3-Dichloro-propene	10061-02-6	s	0.036	a	18.
Dieldrin	60-57-1	s	0.017	a	0.13
Diethyl phthalate	84-66-2	s	0.20	a	28.
p-Dimethylaminoazo-benzene	60-11-3	s	0.13		NA
2,4-Dimethyl phenol	105-67-9	s	0.036	a	14.
Dimethyl phthalate	131-11-3	s	0.047	a	28.
Di-n-butyl phthalate	84-74-2	s	0.057	a	28.
1,4-Dinitrobenzene	100-25-4	s	0.32	a	2.3
4,6-Dinitro-o-cresol	534-52-1	s	0.28	a	160.
2,4-Dinitrophenol	51-28-5	s	0.12	a	160.
2,4-Dinitrotoluene	121-14-2	s	0.32	a	140.
2,6-Dinitrotoluene	606-20-2	s	0.55	a	28.
Di-n-octyl phthalate	117-84-0	s	0.017	a	28.
Di-n-propylnitrosoamine	621-64-7	s	0.40	a	14.
1,2-Diphenyl hydrazine		s	0.087		NA
1,4-Dioxane	123-91-1	s	0.12	a	170.
Disulfoton	298-04-4	s	0.017	a	6.2
Endosulfan I	939-98-8	s	0.023	a	0.066
Endosulfan II	33213-6-5	s	0.029	a	0.13
Endosulfan sulfate	1031-07-8	s	0.029	a	0.13

Endrin	7-20-8	s	0.0028	a	0.13
Endrin aldehyde	7421-93-4	s	0.025	a	0.13
Ethyl acetate	141-78-6	s	0.34	a	33.
Ethyl cyanide		s	0.24		NA
Ethyl benzene	100-41-4	s	0.057	a	6.0
Ethyl ether	60-29-7	s	0.12	a	160.
bis(2-Ethylhexyl) phthalate	117-81-7	s	0.28	a	28.
Ethyl methacrylate	97-63-2	s	0.14	a	160.
Ethylene oxide	75-21-8	s	0.12		NA
Famphur	52-85-7	s	0.017	a	15.
Fluoranthene	206-44-0	s	0.068	a	8.2
Fluorene	86-73-7	s	0.059	a	4.0
Fluorotrichloromethane	75-69-4	s	0.020	a	33.
Heptachlor	76-44-8	s	0.0012	a	0.066
Heptachlor epoxide	1024-57-3	s	0.016	a	0.066
Hexachlorobenzene	118-74-1	s	0.055	a	37.
Hexachlorobutadiene	87-68-3	s	0.055	a	28.
Hexachlorocyclopenta-diene	77-47-4	s	0.057	a	3.6
Hexachlorodibenzo-furans		s	0.000063	a	0.001
Hexachlorodibenzo-p-dioxins		s	0.000063	a	0.001
Hexachloroethane	67-72-1	s	0.055	a	28.
Hexachloropropene	1888-71-7	s	0.035	a	28.
Indeno(1,2,3,-c,d)-pyrene	193-39-5	s	0.0055	a	8.2
Iodomethane	74-88-4	s	0.019	a	65.
Isobutanol	78-83-1	s	5.6	a	170.
Isodrin	465-73-6	s	0.021	a	0.066
Isosafrole	120-58-1	s	0.081	a	2.6
Kepone	143-50-8	s	0.0011	a	0.13
Methacrylonitrile	126-98-7	s	0.24	a	84.
Methapyrilene	91-80-5	s	0.081	a	1.5
Methoxychlor	72-43-5	s	0.25	a	0.18
3-Methylcholanthrene	56-49-5	s	0.0055	a	15.
4,4-Methylene-bis-(2-chloroaniline)	101-14-4	s	0.50	a	35.
Methylene chloride	75-09-2	s	0.089	a	33.
Methyl ethyl ketone	78-93-3	s	0.28	a	36.
Methyl isobutyl ketone	108-10-1	s	0.14	a	33.
Methyl methacrylate	80-62-6	s	0.14	a	160.
Methyl methansulfonate		s	0.018		NA
Methyl parathion	298-00-1	s	0.014	s	4.6
Naphthalene	91-20-3	s	0.059	a	3.1
2-Naphtylamine	91-59-8	s	0.52		NA
p-Nitroaniline	100-01-6	s	0.028	a	28.
Nitrobenzene	98-95-3	s	0.068	a	14.

5-Nitro-o-toluidine	99-55-8	s	0.32	a 28.
4-Nitrophenol	100-02-7	s	0.12	a 29.
N-Nitrosodiethylamine	55-18-5	s	0.40	a 28.
N-Nitrosodimethylamine	62-75-9	s	0.40	NA
N-Nitroso-di-n-butyl-amine	924-16-3	s	0.40	a 17.
N-Nitrosomethylethyl-amine	105-95-6	s	0.40	a 2.3
N-Nitrosomorpholine	59-89-2	s	0.40	a 2.3
N-Nitrosopiperidine	100-75-4	s	0.013	a 35.
N-Nitrosopyrrolidine	930-55-2	s	0.013	a 35.
Parathion	56-38-2	s	0.017	a 4.6
Pentachlorobenzene	608-93-5	s	0.055	a 37.
Pentachlorodibenzo-furans		s	0.000035	a 0.001
Pentachlorodibenzo-p-dioxins		s	0.000063	a 0.001
Pentachloro-nitrobenzene	82-68-8	s	0.055	a 4.8
Pentachlorophenol	87-86-5	s	0.089	a 7.4
Phenacetin	62-44-2	s	0.081	a 16.
Phenanthrene	85-01-8	s	0.059	a 3.1
Phenol	108-95-2	s	0.039	a 6.2
Phorate	298-02-2	s	0.021	a 4.6
Propanenitrile (ethyl cyanide)	107-12-0	s	0.24	a360.
Pronamide	23950-58-5	s	0.093	a 1.5
Pyrene	129-00-0	s	0.067	a 8.2
Pyridine	110-86-1	s	0.014	a 16.
Safrole	94-59-7	s	0.081	a 22.
Silvex (2,4,5-TP)	93-72-1	s	0.72	a 7.9
2,4,5-T	93-76-5	s	0.72	a 7.9
1,2,4,5-Tetrachloro-benzene	95-94-3	s	0.055	a 19.
Tetrachlorodibenzo-furans		s	0.000063	a 0.001
Tetrachlorodibenzo-p-dioxins		s	0.000063	a 0.001
2,3,7,8-Tetrachloro-dibenzo-p-dioxin		s	0.000063	NA
1,1,1,2-Tetrachloro-ethane	630-20-6	s	0.057	a 42.
1,1,2,2-Tetrachloro-ethane	79-34-6	s	0.057	a 42.
Tetrachloroethene	127-18-4	s	0.056	a 5.6
2,3,4,6-Tetrachloro-phenol	58-90-2	s	0.030	a 37.
Toluene	108-88-3	s	0.080	a 28.
Toxaphene	8001-35-1	s	0.0095	a 1.3
1,2,4-Trichlorobenzene	120-82-1	s	0.055	a 19.

		1,1,1-Trichloroethane	71-55-6	s	0.054	a 5.6
		1,1,2-Trichloroethane	79-00-5	s	0.054	a 5.6
		Trichloroethylene	79-01-6	s	0.054	a 5.6
		2,4,5-Trichlorophenol	95-95-4	s	0.18	a 37.
		2,4,6-Trichlorophenol	88-06-2	s	0.035	a 37.
		1,2,3-Trichloropropane	96-18-4	s	0.85	a 28.
		1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	s	0.057	a 28.
		Vinyl chloride	75-01-4	s	0.27	a 33.
		Xylene(s)		s	0.32	a 28.
		Cyanides (Total)	57-12-5	s	1.2	a 1.8
		Cyanides (Amenable)	57-12-5	s	0.86	NA
		Fluoride	16964-48-8	s	35.	NA
		Sulfide	8496-25-8	s	14.	NA
		Antimony	7440-36-0	s	1.9	NA
		Arsenic	7440-38-2	s	5.0	NA
		Barium	7440-39-3	s	1.2	NA
		Beryllium	7440-41-7	s	0.82	NA
		Cadmium	7440-43-9	s	0.20	NA
		Chromium (Total)	7440-47-32	s	0.37	NA
		Copper	7440-50-8	s	1.3	NA
		Lead	7439-92-1	s	0.28	NA
		Mercury	7439-97-6	s	0.15	NA
		Nickel	7440-02-2	s	0.55	NA
		Selenium	7782-49-2	s	0.82	NA
		Silver	7440-22-4	s	0.29	NA
		Vanadium	7440-62-2	s	0.042	NA
K001	Table A	Naphthalene	91-20-3	a	0.031	a 1.5
		Pentachlorophenol	87-86-5	a	0.031	a 1.5
		Phenanthrene	85-01-8	a	0.031	a 1.5
		Pyrene	129-00-0	a	0.028	a 1.5
		Toluene	106-88-3	a	0.028	a 28.
		Xylenes (Total)		a	0.032	a 33.
		Lead	7439-92-1	a	0.037	NA

K002	Table A	Chromium (Total)	7440-47-32	s	2.9	NA
		Lead	7439-92-1	s	3.4	NA
K003	Table A	Chromium (Total)	7440-47-32	s	2.9	NA
		Lead	7439-92-1	s	3.4	NA
K004	Table A	Chromium (Total)	7440-47-32	s	2.9	NA
		Lead	7439-92-1	s	3.4	NA
K005	Table A	Chromium (Total)	7440-47-32	s	2.9	NA
		Lead	7439-92-1	s	3.4	NA
		Cyanides (Total)	57-12-5	s	0.74	(R)
K006	Table A	Chromium (Total)	7440-47-32	s	2.9	NA
		Lead	7439-92-1	s	3.4	NA
K007	Table A	Chromium (Total)	7440-47-32	s	2.9	NA
		Lead	7439-92-1	s	3.4	(R) NA
		Cyanides (Total)	57-12-5	s	0.74	
K008	Table A	Chromium (Total)	7440-47-32	s	2.9	NA
		Lead	7439-92-1	s	3.4	NA
K009		Chloroform	67-66-3		0.1	a 6.0
K010		Chloroform	67-66-3		0.1	6.0
K011		Acetonitrile	75-05-8		38.	1.8
		Acrylonitrile	107-13-1		0.06	1.4
		Acrylamide	79-06-1		19.	23.
		Benzene	71-43-2		0.02	0.03
		Cyanide (Total)	57-12-5		21.	57.
K013		Acetonitrile	75-05-8		38.	a 1.8
		Acrylonitrile	107-13-1		0.06	a 1.4
		Acrylamide	79-06-1		19.	a 23.
		Benzene	71-43-2		0.02	a 0.03

		Cyanide (Total)	57-12-5	21.	57.
K014		Acetonitrile	75-05-8	38.	a 1.8
		Acrylonitrile	107-13-1	0.06	a 1.4
		Acrylamide	79-06-1	19.	a 23.
		Benzene	71-43-2	0.02	a 0.03
		Cyanide (Total)	57-12-5	21.	57.
K015	Table A	Anthracene	120-12-7	1.0a	3.4
		Benzal chloride	98-87-3	0.28	a 6.2
		Sum of Benzo(b)fluoranthene and Benzo(k)-fluoranthene	205-99-2 207-08-9	0.029	3.4
		Phenanthrene	85-01-8	0.27	a 3.4
		Toluene	108-88-3	0.15	a 6.0
		Chromium (Total)	7440-47-32	0.32	NA
		Nickel	7440-02-2	0.44	NA
K016		Hexachlorobenzene	118-74-1	a 0.033	a 28.
		Hexachlorobutadiene	87-68-3	a 0.007	a 5.8
		Hexachlorocyclopentadiene	77-47-4	a 0.007	a 5.6
		Hexachloroethane	67-72-1	a 0.033	a 28.
		Tetrachloroethene	127-18-4	a 0.007	a 6.0
K017		1,2-Dichloropropane	78-87-5	sa 0.85	a 28.
		1,2,3-Trichloropropane	96-18-4	sa 0.85	a 28.
		Bis(2-chloroethyl)-ether	111-44-4	sa 0.033	a 7.2
K018		Chloroethane	75-00-3	a 0.007	a 6.0
		1,1-Dichloroethane	75-34-3	a 0.007	a 6.0
		1,2-Dichloroethane	107-06-2	a 0.007	a 6.0
		Hexachlorobutadiene	87-68-3	a 0.033	a 5.6
		Hexachloroethane	67-72-1	a 0.007	a 28.
		Pentachloroethane	76-01-7	a 0.007	a 5.6
		1,1,1-Trichloroethane	71-55-6	a 0.007	a 6.0
K019		Bis(2-chloroethyl)-ether	111-44-4	a 0.007	a 5.6
		Chlorobenzene	108-90-7	a 0.006	a 6.0
		Chloroform	67-66-3	a 0.006	a 6.0
		p-Dichlorobenzene	106-46-7	a 0.008	NA
		1,2-Dichloroethane	107-06-2	a 0.008	NA
		Fluorene	86-73-7	a 0.007	NA
		Hexachloroethane	67-72-1	a 0.033	a 28.
		Naphthalene	91-20-3	a 0.007	a 5.6
		Phenanthrene	85-01-8	a 0.007	a 5.6

		1,2,4,5-Tetrachloro-benzene	95-94-3	a	0.017	NA
		Tetrachloroethene	127-18-4	a	0.007	a 6.0
		1,2,4-Trichlorobenzene	120-82-1	a	0.023	a 19.
		1,1,1-Trichloroethane	71-55-6	a	0.007	a 6.0
K020		1,2-Dichloroethane	107-06-2	a	0.007	a 6.0
		1,1,2,2-Tetrachloro-ethane	79-34-6	a	0.007	a 5.6
		Tetrachloroethene	127-18-4	a	0.007	a 6.0
K021	Table A	Chloroform	67-66-3	s	0.046	a 6.2
		Carbon tetrachloride	58-23-5	s	0.057	a 6.2
		Antimony	58-23-5	s	0.057	a 6.2
K022	Table A	Toluene	108-88-3	s	0.060	a 0.034
		Acetophenone	96-86-2		0.010	a 19.
		Diphenylamine	22-39-4	s	0.52	NA
		Diphenylnitrosamine	86-30-6	s	0.40	NA
		Sum of Diphenylamine and Diphenylnitros-amine			NA	a 13.
		Phenol	108-95-2		0.039	a 12.
		Chromium (Total)	7440-47-32		0.35	NA
		Nickel	7440-02-0		0.47	NA
K023		Phthalic anhydride (measured as Phthalic acid)	85-44-9	a	0.54	a 28.
K024		Phthalic anhydride (measured as Phthalic acid)	85-44-9	a	0.54	a 28.
K028	Table A	1,1-Dichloroethane	75-34-3	a	0.007	a 6.0
		trans-1,2-Dichloro-ethene		a	0.033	a 6.0
		Hexachlorobutadiene	87-68-3	a	0.007	a 5.6
		Hexachloroethane	67-72-1	a	0.033	a 28.
		Pentachloroethane	76-01-7	a	0.033	a 5.6
		1,1,1,2-Tetrachloro-ethane	630-20-6	a	0.007	a 5.6
		1,1,2,2-Tetrachloro-ethane	79-34-6	a	0.007	a 5.6
		1,1,1-Trichloroethane	71-55-6	a	0.007	a 6.0
		1,1,2-Trichloroethane	79-00-5	a	0.007	a 6.0
		Tetrachloroethylene	127-18-4	a	0.007	a 6.0

		Cadmium	7440-43-9		6.4		NA
		Chromium (Total)	7440-47-32		0.35		NA
		Lead	7439-92-1		0.037		NA
		Nickel	7440-02-2		0.47		NA
K029		Chloroform	67-66-3		0.46	a	6.0
		1,2-Dichloroethane	107-06-2		0.21	a	6.0
		1,1-Dichloroethylene	75-35-4		0.025	a	6.0
		1,1,1-Trichloroethane	71-55-6		0.054	a	6.0
		Vinyl chloride	75-01-4		0.27	a	6.0
K030		o-Dichlorobenzene	95-50-1	a	0.008		NA
		p-Dichlorobenzene	106-46-7	a	0.006		NA
		Hexachlorobutadiene	87-68-3	a	0.007	a	5.6
		Hexachloroethane	67-72-1	a	0.033	a	28.
		Hexachloropropene	1888-71-7		NA	a	19.
		Pentachlorobenzene	608-93-5		NA	a	28.
		Pentachloroethane	76-01-7	a	0.007	a	5.6
		1,2,4,5-Tetrachloro-benzene	95-94-3	a	0.017	a	14.
		Tetrachloroethane	127-18-4	a	0.007	a	6.0
		1,2,4-Trichlorobenzene	120-82-1	a	0.023	a	19.
K031	Table A	Arsenic	7440-38-2		0.79		NA
K032		Hexachlorocyclopenta-diene	77-47-4	s	0.057	a	24.
		Chlordane	57-74-9	s	0.0033	a	0.26
		Heptachlor	76-44-8	s	0.012	a	0.066
		Heptachlor epoxide	1024-57-3	s	0.016	a	0.066
K033		Hexachlorocyclopenta-diene	77-47-4	s	0.057	a	2.4
K034		Hexachlorocyclopenta-diene	77-47-4	s	0.057	a	2.4
K035		Acenaphthene	83-32-9		NA	a	3.4
		Anthracene	120-12-7		NA	a	3.4
		Benz(a)anthracene	56-55-3	s	0.59	a	3.4
		Benzo(a)pyrene	50-32-8		NA	a	3.4
		Chrysene	218-01-9	s	0.059	a	3.4
		Dibenz(a,h)anthracene	53-70-3		NA	a	3.4
		Fluoranthene	206-44-0	s	0.068	a	3.4
		Fluorene	86-73-7		NA	a	3.4
		Indeno(1,2,3-cd)pyrene	193-39-5		NA	a	3.4

		Cresols (m- and p-isomers)		s	0.77		NA
		Naphthalene	91-20-3	s	0.059	a	3.4
		o-Cresol	95-48-7	s	0.11		NA
		Phenanthrene	85-01-8	s	0.059	a	3.4
		Phenol	108-95-2		0.039		NA
		Pyrene	129-00-0	s	0.067	a	8.2
K036		Disulfoton	298-04-4	s	0.025	a	0.1
K037		Disulfoton	298-04-4	s	0.025	a	0.1
		Toluene	108-88-3	s	0.080	a	28.
K038		Phorate	298-02-2		0.025	a	0.1
K040		Phorate	298-02-2		0.025	a	0.1
K041		Toxaphene	8001-35-1	s	0.0095	a	2.6
K042		1,2,4,5-Tetrachlorobenzene	95-94-3	s	0.055	a	4.4
		o-Dichlorobenzene	95-50-1	s	0.088	a	4.4
		p-Dichlorobenzene	106-46-7	s	0.090	a	4.4
		Pentachlorobenzene	808-93-5	s	0.055	a	4.4
		1,2,4-Trichlorobenzene	120-82-1	s	0.055	a	4.4
K043		2,4-Dichlorophenol	120-83-2	a	0.049	a	0.38
		2,6-Dichlorophenol	87-65-0	a	0.013	a	0.3
		2,4,5-Trichlorophenol	95-95-4	a	0.016	a	8.2
		2,4,6-Trichlorophenol	88-06-2	a	0.039	a	7.8
		Tetrachlorophenols (Total)		a	0.018	a	0.68
		Pentachlorophenol	87-86-5	a	0.22	a	1.9
		Tetrachloroethene	79-01-6	a	0.006	a	1.7
		Hexachlorodibenzo-p-dioxins		a	0.001	a	0.001
		Hexachlorodibenzofurans		a	0.001	a	0.001
		Pentachlorodibenzo-p-dioxins		a	0.001	a	0.001
		Pentachlorodibenzofurans		a	0.001	a	0.001
		Tetrachlorodibenzo-p-dioxins		a	0.001	a	0.001
		Tetrachlorodibenzofurans		a	0.001	a	0.001
K046	Table A	Lead	7439-92-1		0.037		NA

K048	Table A	Benzene	71-43-2	a	0.011	a 14.
		Benzo(a)pyrene	50-32-8	a	0.047	a 12.
		Bis(2-ethylhexyl)-phthalate	117-81-7	a	0.043	a 7.3
		Chrysene	218-01-9	a	0.043	a 15.
		Di-n-butyl phthalate	84-74-2	a	0.06	a 3.6
		Ethylbenzene	100-41-4	a	0.011	a 14.
		Fluorene	86-73-7	a	0.05	NA
		Naphthalene	91-20-3	a	0.033	a 42.
		Phenanthrene	85-01-8	a	0.039	a 34.
		Phenol	108-95-2	a	0.047	a 3.6
		Pyrene	129-00-0	a	0.045	a 36.
		Toluene	108-88-3	a	0.011	a 14.
		Xylene(s)		a	0.011	a 22.
		Cyanides (Total)	57-12-5	a	0.028	a 1.8
		Chromium (Total)	7440-47-32		0.2	NA
		Lead	7439-92-1		0.037	NA
K049	Table A	Anthracene	120-12-7	a	0.039	a 28.
		Benzene	71-43-2	a	0.011	a 14.
		Benzo(a)pyrene	50-32-8	a	0.047	a 12.
		Bis(2-ethylhexyl)-phthalate	117-81-7	a	0.043	a 7.3
		Carbon disulfide	75-15-0	a	0.011	NA
		Chrysene	218-01-9	a	0.043	a 15.
		2,4-Dimethylphenol	105-67-9	a	0.033	NA
		Ethylbenzene	100-41-4	a	0.011	a 14.
		Naphthalene	91-20-3	a	0.033	a 42.
		Phenanthrene	85-01-8	a	0.039	a 34.
		Phenol	108-95-2	a	0.047	a 3.6
		Pyrene	129-00-0	a	0.045	a 36.
		Toluene	108-88-3	a	0.011	a 14.
		Xylene(s)		a	0.011	a 22.
		Cyanides (Total)	57-12-5	a	0.028	a 1.8
		Chromium (Total)	7440-47-32		0.2	NA
		Lead	7439-92-1		0.037	NA
K050	Table A	Benzo(a)pyrene	50-32-8	a	0.047	a 12.
		Phenol	108-95-2	a	0.047	a 3.6
		Cyanides (Total)	57-12-5	a	0.028	a 1.8
		Chromium (Total)	7440-47-32		0.2	NA
		Lead	7439-92-1		0.037	NA

K051	Table A	Acenaphthene	83-32-9	a	0.05	NA
		Anthracene	120-12-7	a	0.039	a 28.
		Benzene	71-43-2	a	0.011	a 14.
		Benzo(a)anthracene	50-32-8	a	0.043	a 20.
		Benzo(a)pyrene	50-32-8	a	0.047	a 12.
		Bis(2-ethylhexyl)-phthalate	75-15-0	a	0.043	a 7.3
		Chrysene	218-01-9	a	0.043	a 15.
		Di-n-butyl phthalate	105-67-9	a	0.06	a 3.6
		Ethylbenzene	100-41-4	a	0.011	a 14.
		Fluorene	86-73-7	a	0.05a	NA
		Naphthalene	91-20-3	a 42. 0.033		
		Phenanthrene	85-01-8	a	0.039	a 34.
		Phenol	108-95-2	a	0.047	a 3.6
		Pyrene	129-00-0	a	0.045	a 36.
		Toluene	108-88-3	a	0.011	a 14.
		Xylene(s)		a	0.011	a 22.
		Cyanides (Total)	57-12-5	a	0.028	a 1.8
		Chromium (Total)	7440-47-32		0.2	NA
		Lead	7439-92-1		0.037	NA
K052	Table A	Benzene	71-43-2	a	0.011	a 14.
		Benzo(a)pyrene	50-32-8	a	0.047	a 12.
		o-Cresol	95-48-7	a	0.011	a 6.2
		p-Cresol	106-44-5	a	0.011	a 6.2
		2,4-Dimethylphenol	105-67-9	a	0.033a	NA
		Ethylbenzene	100-41-4	a	0.011	a 14.
		Naphthalene	91-20-3	a	0.033	a 42.
		Phenanthrene	85-01-8	a	0.039	a 34
		Phenol	108-95-2	a	0.047	a 3.6
		Toluene	108-88-3	a	0.011	a 14.
		Xylene(s)		a	0.011	a 22.
		Cyanides (Total)	57-12-5	a	0.028	a 1.8
		Chromium (Total)	7440-47-32		0.2	NA
		Lead	7439-92-1		0.037	NA
K060		Benzene	71-43-2	s	0.17	a 0.071
		Benzo(a)pyrene	50-32-8	s	0.035	a 3.6
		Naphthalene	91-20-3	s	0.028	a 3.4
		Phenol	108-95-2	s	0.042	a 3.4
		Cyanides (Total)	57-12-5		1.9	1.2
K061	Tables A & D	Cadmium	7440-43-9		1.61	NA

		Chromium (Total)	7440-47-32		0.32	NA
		Lead	7439-92-1		0.51	NA
		Nickel	7440-02-2		0.44	NA
K062	Table A	Chromium (Total)	7440-47-32		0.32	NA
		Lead	7439-92-1		0.04	NA
		Nickel	7440-02-2		0.44	NA
K069	Tables A & D	Cadmium	7440-43-9		1.6	NA
		Lead	7439-92-1		0.51	NA
K071	Table A	Mercury	7439-97-6		0.030	NA
K073		Carbon tetrachloride	58-23-5	s	0.057	a 6.2
		Chloroform	67-66-3	s	0.046	a 6.2
		Hexachloroethane	67-72-1	s	0.055	a 30.
		Tetrachloroethene	127-18-4	s	0.056	a 6.2
		1,1,1-Trichloroethane	71-55-6	s	0.054	a 6.2
K083	Table A	Benzene	71-43-2	s	0.14	a 6.6
		Aniline	62-53-3	s	0.81	a 14.
		Diphenylamine	22-39-4	s	0.52	NA
		Diphenylnitrosamine	86-30-6	s	0.40	NA
		Sum of Diphenylamine and Diphenylnitrosamine			NA	a 14.
		Nitrobenzene	98-95-3	s	0.068	a 14.
		Phenol	108-95-2		0.039	a 5.6
		Cyclohexanone	108-94-1		0.36	a 30.
		Nickel	7440-02-2		0.47	NA
K084		Arsenic	7440-38-2		0.79	NA
K085		Benzene	71-43-2	s	0.14	a 4.4
		Chlorobenzene	108-90-7	s	0.057	a 4.4
		o-Dichlorobenzene	95-50-1	s	0.088	a 4.4
		m-Dichlorobenzene	541-73-1	s	0.036	a 4.4
		p-Dichlorobenzene	106-46-7	s	0.090	a 4.4
		1,2,4-Trichlorobenzene	120-82-1	s	0.055	a 4.4

		1,2,4,5-Tetrachloro-benzene	95-94-3	s	0.055	a	4.4
		Pentachlorobenzene	608-93-5		0.055	a	4.4
		Hexachlorobenzene	118-74-1	s	0.055	a	4.4
		Aroclor 1016	12674-11-2	s	0.013	a	0.9
		Aroclor 1221	11104-28-2	s	0.014	a	0.92
		Aroclor 1232	11141-16-5	s	0.013	a	0.92
		Aroclor 1242	53469-21-9	s	0.017	a	0.92
		Aroclor 1248	12672-29-6	s	0.013	a	0.92
		Aroclor 1254	11097-69-1	s	0.014	a	1.8
		Aroclor 1260	11096-82-5	s	0.014	a	1.8
K086	Table A	Acetone	67-64-1		0.28	a	160.
		Acetophenone	96-86-2		0.010	a	9.7
		Bis(2-ethylhexyl)-phthalate	117-81-7	s	0.28	a	28.
		n-Butyl alcohol	71-36-3		5.6	a	2.6
		Butylbenzylphthalate	85-68-7	s	0.017	a	7.9
		cyclohexanone	108-94-1		0.36		NA
		1,2-Dichlorobenzene	95-50-1		0.088	a	6.0
		Diethyl phthalate	84-66-2	s	0.20	a	28.
		Dimethyl phthalate	131-11-3	s	0.047	a	28.
		Di-n-butyl phthalate	84-74-2	s	0.057	a	28.
		Di-n-octyl phthalate	117-84-0	s	0.017	a	28.
		Ethyl acetate	141-78-6	s	0.34	a	33.
		Ethylbenzene	100-41-4	s	0.057	a	6.0
		Methanol	67-56-1	s	5.6		NA
		Methyl isobutyl ketone	108-10-1		0.14	a	33.
		Methyl ethyl ketone	78-93-3		0.28	a	36.
		Methylene chloride	75-09-2	s	0.089	a	33.
		Naphthalene	91-20-3	s	0.059	a	3.1
		Nitrobenzene	98-95-3	s	0.068	a	14.
		Toluene	108-88-3	s	0.080	a	28.
		1,1,1-Trichloroethane	71-55-6	s	0.054	a	5.6
		Trichloroethylene	79-01-6	s	0.054	a	5.6
		Xylene(s)	(Total)	s	0.32	a	28.
		Cyanides (Total)	57-12-5		1.9		1.5
		Chromium (Total)	7440-47-32		0.32		NA
		Lead	7439-92-1		0.037		NA
K087	Table A	Acenaphthalene	208-96-8	a	0.028		3.4

	Benzene	71-43-2	a	0.014	a	0.071
	Chrysene	218-01-9	a	0.028	a	3.4
	Fluoranthene	206-44-0	a	0.028	a	3.4
	Indeno(1,2,3-cd)pyrene	193-39-5	a	0.028	a	3.4
	Naphthalene	91-20-3	a	0.028	a	3.4
	Phenanthrene	85-01-8	a	0.028	a	3.4
	Toluene	108-88-3	a	0.008	a	0.65
	Xylene(s)		a	0.014	a	0.07
	Lead	7439-92-1		0.037		NA
K093	Phthalic anhydride (measured as Phthalic acid)	85-44-9	a	0.54	a	28.
K094	Phthalic anhydride (measured as Phthalic acid)	85-44-9	a	0.54	a	28.
K095	1,1,1,2-Tetrachloroethane	630-20-6		0.057	a	5.6
	1,1,2,2-Tetrachloroethane	79-34-6		0.057	a	5.6
	Tetrachloroethene	127-18-4		0.056	a	6.0
	1,1,2-Trichloroethane	79-00-5		0.054	a	6.0
	Trichloroethylene	79-01-6		0.054	a	5.6
	Hexachloroethane	67-72-1		0.055	a	28.
	Pentachloroethane	76-01-7		0.055	a	5.6
K096	1,1,1,2-Tetrachloroethane	630-20-6		0.057	a	5.6
	1,1,2,2-Tetrachloroethane	79-34-6		0.057	a	5.6
	Tetrachloroethene	127-18-4		0.056	a	6.0
	1,1,2-Trichloroethane	79-00-5		0.054	a	6.0
	Trichloroethene	79-01-6		0.054	a	5.6
	1,3-Dichlorobenzene	541-73-1		0.036	a	5.6
	Pentachloroethane	76-01-7		0.055	a	5.6
	1,2,4-Trichlorobenzene	120-82-1		0.055	a	19.
K097	Hexachlorocyclopentadiene	77-47-4	s	0.057		2.4
	Chlordane	57-74-9	s	0.0033	a	0.26
	Heptachlor	76-44-8	s	0.0012	a	0.066
	Heptachlor epoxide	1024-57-3	s	0.016	a	0.066
K098	Toxaphene	8001-35-1	s	0.0095	a	2.6
K099	2,4-Dichlorophenoxyacetic acid	94-75-7	a	1.	a	1.

		Hexachlorodibenzo-p-dioxins		a	0.001	a	0.001
		Hexachlorodibenzo-furans		a	0.001	a	0.001
		Pentachlorodibenzo-p-dioxins		a	0.001	a	0.001
		Pentachlorodibenzo-furans		a	0.001	a	0.001
		Tetrachlorodibenzo-p-dioxins		a	0.001	a	0.001
		Tetrachlorodibenzo-furans		a	0.001	a	0.001
K100	Table A	Cadmium	7440-43-9		1.6		NA
		Chromium (Total)	7440-47-32		0.32		NA
		Lead	7439-92-1		0.51		NA
K101		o-Nitroaniline		a	0.27	a	14.
		Arsenic	7440-38-2		0.79		NA
		Cadmium	7440-43-9		0.24		NA
		Lead	7439-92-1		0.17		NA
		Mercury	7439-97-6		0.082		NA
K102	Table A	o-Nitrophenol		a	0.028	a	13.
		Arsenic	7440-38-2		0.79		NA
		Cadmium	7440-43-9		0.24		NA
		Lead	7439-92-1		0.17		NA
		Mercury	7439-97-6		0.082		NA
K103		Aniline	62-53-3	a	4.5		5.6
		Benzene	71-43-2	a	0.15	a	6.0
		2,4-Dinitrophenol	51-28-5	a	0.61	a	5.6
		Nitrobenzene	98-95-3	a	0.073	a	5.6
		Phenol	108-95-2	a	1.4	a	5.6
K104		Aniline	62-53-3	a	4.5	a	5.6
		Benzene	71-43-2	a	0.15	a	6.0
		2,4-Dinitrophenol	51-28-5	a	0.61	a	5.6
		Nitrobenzene	98-95-3	a	0.073	a	5.6
		Phenol	108-95-2	a	1.4	a	5.6

		Cyanides (Total)	57-12-5	2.7	a	1.8
K105		Benzene	71-43-2	0.14	a	4.4
		Chlorobenzene	108-90-7	0.057	a	4.4
		o-Dichlorobenzene	95-50-1	0.088	a	4.4
		p-Dichlorobenzene	106-46-7	0.090	a	4.4
		2,4,5-Trichlorophenol	95-95-4	0.18	a	4.4
		2,4,6-Trichlorophenol	88-06-2	0.035	a	4.4
		2-Chlorophenol	95-57-8	0.044	a	4.4
		Phenol	108-95-2	0.039	a	4.4
K106	Tables A & D	Mercury	7439-97-6	0.030		NA
K115	Table A	Nickel	7440-02-2	0.47		NA

a Treatment standards for this organic constituent were established based upon incineration in units operated in accordance with the technical requirements of 35 Ill. Adm. Code 724.Subpart O or 725.Subpart O, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may certify compliance with these treatment standards according to provisions in Section 728.107.

s Based on analysis of composite samples.

(R) As analyzed using SW-846 Method 9010; sample size: 0.5-10; distillation time: one hour to one hour and fifteen minutes.

NA Not Applicable.

TABLE B (CCW): P AND U LISTED WASTES

Waste Code	Commercial Chemical Name	See Also	Regulated Hazardous Constituent	CAS No. for Regulated Hazardous Constituent	Concentration (mg/l) Wastewaters	Non-wastewaters
P004	Aldrin		Aldrin	309-00-2	0.21	0.066
P010	Arsenic acid	Table A	Arsenic	7440-38-2	0.79	NA
P011	Arsenic pentoxide	Table A	Arsenic	7440-38-2	0.79	NA

P012	Arsenic trioxide	Table A	Arsenic	7440-38-2		0.79	NA
P013	Barium cyanide	Table A	Cyanides (Total)	57-12-5		1.9	110.
			Cyanides (Amenable)	57-12-5		0.1	9.1
P020	2-sec-Butyl-4,6-dinitro-phenol (Dinoseb)		2-sec-Butyl-4,6-dinitro-phenol (Dinoseb)	88-85-7		0.066	* 2.5
P021	Calcium cyanide		Cyanides (Total)	57-12-5		1.9	110.
			Cyanides (Amenable)	57-12-5		0.1	9.1
P022	Carbon di-sulfide	Table D	Carbon di-sulfide	75-15-0		0.014	NA
P024	p-Chloro-aniline		p-Chloro-aniline	106-47-8		0.46	* 16.
P029	Copper cyanide		Cyanides (Total)	57-12-5		1.9	110.
			Cyanides (Amenable)	57-12-5		0.1	9.1
P030	Cyanides (soluble salts and complexes)		Cyanides (Total)	57-12-5		1.9	110.
			Cyanides (Amenable)	57-12-5		0.1	9.1
P036	Dichloro-phenyl-arsine	Table A	Arsenic	7440-38-2		0.79	NA
P037	Dieldrin		Dieldrin	60-57-1	*	0.017	* 0.13
P038	Diethyl-arsine	Table A	Arsenic	7440-38-2		0.79	NA
P039	Disulfoton		Disulfoton	298-04-4		0.017	* 0.1
P047	4,6-Di-nitro-o-cresol		4,6-Di-nitro-o-cresol	534-52-4	*	0.28	*160.

P048	2,4-Di-nitro-phenol		2,4-Di-nitrophenol	51-28-5	*	0.12	*160.	
P050	Endosulfan		Endosulfan I	939-98-8	*	0.023	*	0.066
			Endosulfan II	33213-6-5	*	0.029	*	0.13
			Endosulfan sulfate	1031-07-8	*	0.029	*	0.13
P051	Endrin		Endrin	72-20-8	*	0.0028	*	0.13
			Endrin aldehyde	7421-93-4	*	0.025	*	0.13
P056	Fluoride	Table D	Fluoride	18694-48-8		35.		NA
P059	Heptachlor		Heptachlor	76-44-8	*	0.0012	*	0.066
			Heptachlor epoxide	1024-57-3	*	0.016	*	0.066
P060	Isodrin		Isodrin	465-73-6	*	0.021	*	0.066
P063	Hydrogen cyanide		Cyanides (Total)	57-12-5		1.9		110.
			Cyanides (Amenable)	57-12-5		0.10		9.1
P065	Mercury fulminate	Tables A & D	Mercury	7439-97-6		0.030		NA
P071	Methyl parathion		Methyl parathion	298-00-0		0.025	*	0.1
P073	Nickel carbonyl	Table A	Nickel	7440-02-2		0.44		NA
P074	Nickel cyanide	Table A	Cyanides (Table)	57-12-5		1.9		110.
			Cyanides (Amenable)	57-12-5		0.10		9.1
			Nickel	7440-02-2		0.44		NA
P077	p-Nitro-aniline		p-Nitro-aniline	100-01-6	*	0.028	*	28.

P082	N-Nitroso-dimethyl-amine	Table D	N-Nitroso-dimethyl-amine	62-75-9	*	0.40		NA
P089	Parathion		Parathion	56-38-2		0.025	*	0.1
P092	Phenyl-mercury acetate	Tables A & D	Mercury	7439-97-6		0.030		NA
P094	Phorate		Phorate	298-02-2		0.025	*	0.1
P097	Famphur		Famphur	52-85-7		0.025	*	0.1
P098	Potassium cyanide		Cyanides (Total)	57-12-5		1.9		110.
			Cyanides (Amenable)	57-12-5		0.10		9.1
P099	Potassium silver cyanide	Table A	Cyanides (Total)	57-12-5		1.9		110.
			Cyanides (Amenable)	57-12-5		0.1		9.1
			Silver	7440-22-4		0.29		NA
P101	Ethyl cyanide (Propane-nitrile)		Ethyl cyanide (Propane-nitrile)	107-12-0	*	0.24		*360.
P103	Seleno-urea	Table A	Selenium	7782-49-2	*	1.0		NA
P104	Silver cyanide	Table A	Cyanides (Total)	57-12-5		1.9		110.
			Cyanides (Amenable)	57-12-5		0.10		9.1
			Silver	7440-22-4		0.29		NA
P106	Sodium cyanide		Cyanides (Total)	57-12-5		1.9		110.
			Cyanides (Amenable)	57-12-5		0.10		9.1
P110	Tetraethyl lead	Tables A & D	Lead	7439-92-1		0.040		NA
P113	Thallic oxide	Table D	Thallium	7440-28-0	*	0.14		NA

P114	Thallium selenite	Table A	Selenium	7782-49-2		1.0		NA
P115	Thallium(I) sulfate	Table D	Thallium	7440-28-0	*	0.14		NA
P119	Ammonia vanadate	Table D	Vanadium	7440-62-2	*	28.		NA
P120	Vanadium pentoxide	Table D	Vanadium	7440-62-2	*	28.		NA
P121	Zinc cyanide		Cyanides (Total)	57-12-5		1.9		110.
			Cyanides (Amenable)	57-12-5		0.10		9.1
P123	Toxaphene		Toxaphene	8001-35-1	*	0.0095	*	1.3
U002	Acetone		Acetone	67-64-1		0.28	*	160.
U003	Acetonitrile	Table D	Acetonitrile	75-05-8		0.17		NA
U004	Acetophenone		Acetophenone	98-86-2	*	0.010	*	9.7
U005	2-Acetyl-aminofluorene		2-Acetyl-aminofluorene	53-96-3	*	0.059	*	140.
U009	Acrylonitrile		Acrylonitrile	107-13-1	*	0.24	*	84.
U012	Aniline		Aniline	62-53-3		0.81	*	14.
U018	Benz(a)anthracene		Benz(a)anthracene	56-55-3	*	0.059	*	8.2
U019	Benzene		Benzene	71-43-2	*	0.14	*	36.
U022	Benzo(a)pyrene		Benzo(a)pyrene	50-32-8	*	0.061	*	8.2
U024	Bis(2-chloroethoxy)methane		Bis(2-chloroethoxy)methane	111-91-1		0.036	*	7.2

U025	Bis(2-chloro-ethyl) - ether		Bis(2-chloro-ethyl) - ether	111-44-4		0.033	*	7.2
U027	Bis(2-chloro-isopropyl) ether		Bis(2-chloro-isopropyl) ether	39638-32-9	*	0.055	*	7.2
U028	Bis(2-ethyl-hexyl) pthalate		Bis(2-ethylhexyl) pthalate	117-81-7	*	0.54	*	28.
U029	Bromomethane (Methyl bromide)		Bromomethane (Methyl bromide)	74-83-9	*	0.11	*	15.
U030	4-Bromophenyl phenyl ether		4-Bromophenyl phenyl ether	101-55-3	*	0.055	*	15.
U031	n-Butyl alcohol		n-Butyl alcohol	71-36-3		5.6	*	2.6
U032	Calcium chromate	Table A	Chromium (Total)	7440-47-32		0.32		NA
U036	Chlordane (alpha and gamma)		Chlordane (alpha and gamma)	57-74-9	*	0.00033	*	0.13
U037	Chloro-benzene		Chloro-benzene	108-90-7	*	0.057	*	5.7
U038	Chloro-benzilate	Table D	Chloro-benzilate	510-15-6	*	0.10		NA
U039	p-Chloro-m-cresol		p-Chloro-m-cresol	59-50-7	*	0.018	*	14.
U042	2-Chloro-ethyl vinyl	Table D	2-Chloro-ethyl vinyl	110-75-8		0.057		NA
U043	Vinyl chloride		Vinyl chloride	75-01-4	*	0.27	*	33.
U044	Chloro-form		Chloroform	67-66-3	*	0.046	*	5.6

U045	Chloro-methane (Methyl chloride)		Chloro-methane (Methyl chloride)	74-87-3	*	0.19	*	33.
U047	2-Chloro-naphthalene		2-Chloro-naphthalene	91-58-7	*	0.055	*	5.6
U048	2-Chloro-phenol		2-Chloro-phenol	95-57-8	*	0.044	*	5.7
U050	Chrysene		Chrysene	218-01-9	*	0.059	*	8.2
U051	Creosote	Table A	Naphthalene	91-20-3	*	0.031	*	1.5
			Penta-chloro-phenol	87-86-5	*	0.18	*	7.4
			Phenanthrene	85-01-8	*	0.031	*	1.5
			Pyrene	129-00-0	*	0.028	*	28.
			Toluene	108-88-3	*	0.028	*	33.
			Xylenes (Total)		*	0.032		NA
			Lead	7439-92-1	*	0.037	NA	
U052	Cresols (Cresylic acid)		o-Cresol	95-48-7	*	0.11	*	5.6
			Cresols (m- and p-isomers)		*	0.77	*	3.2
U057	Cyclo-hexanone	Table D	Cyclo-hexanone	108-94-1		0.36		NA
U060	DDD		o,p'-DDD	53-19-0		0.023	*	0.087
			p,p'-DDD	72-54-8		0.023	*	0.087
U061	DDT		o,p'-DDT	789-02-6	*	0.0039	*	0.087
			p,p'-DDT	50-29-3	*	0.0039	*	0.087
			o,p'-DDD	53-19-0		0.023	*	0.087
			p,p'-DDD	72-54-8		0.023	*	0.087
			o,p'-DDE	3424-82-6	*	0.031	*	0.087
			p,p'-DDE	72-55-9	*	0.031	*	0.087

U063	Dibenzo-(a,h)-anthracene	Dibenzo-(a,h)-anthracene	53-70-3	*	0.055	*	8.2
U066	1,2-Dibromo-3-chloropropane	1,2-Dibromo-3-chloropropane	96-12-8	*	0.11	*	15.
U067	1,2-Dibromoethane (Ethylene dibromide)	1,2-Dibromoethane (Ethylene dibromide)	106-93-4	*	0.028	*	15.
U068	Dibromoethane	Dibromoethane	74-95-3	*	0.11		15.
U069	Di-n-butyl phthalate	Di-n-butyl phthalate	84-74-2	*	0.54	*	28.
U070	o-Dichlorobenzene	o-Dichlorobenzene	95-50-1	*	0.088	*	6.2
U071	m-Dichlorobenzene	m-Dichlorobenzene	541-73-1		0.036		6.2
U072	p-Dichlorobenzene	p-Dichlorobenzene	104-46-7	*	0.090	*	6.2
U075	Dichlorodifluoromethane	Dichlorodifluoromethane	75-71-8	*	0.23	*	7.2
U076	1,1-Dichloroethane	1,1-Dichloroethane	75-34-3	*	0.059		7.2
U077	1,2-Dichloroethane	1,2-Dichloroethane	107-06-2	*	0.21	*	7.2
U078	1,1-Dichloroethylene	1,1-Dichloroethylene	75-35-4	*	0.025	*	33.
U079	1,2-Dichloroethylene	trans-1,2-Dichloroethylene	156-60-5	*	0.054		33. X

U080	Methylene chloride		Methylene chloride	75-08-2	0.089 Y	33. X
U081	2,4-Dichlorophenol		2,4-Dichlorophenol	120-83-2	0.044 Y	14. X
U082	2,6-Dichlorophenol		2,6-Dichlorophenol	87-65-0	0.044 Y	14. X
U083	1,2-Dichloropropane		1,2-Dichloropropane	78-87-5	0.85 Y	18. X
U084	1,3-Dichloropropene		cis-1,3-Dichloropropylene	10061-01-5	0.036 Y	18. X
			trans-1,3-Dichloropropylene	10061-02-6	0.036 Y	18. X
U088	Diethyl phthalate		Diethyl phthalate	84-86-2	0.54 X	28. X
U093	p-Dimethylaminoazobenzene	Table D	p-Dimethylaminoazobenzene	60-11-7	0.13 Y	NA
U101	2,4-Dimethylphenol		2,4-Dimethylphenol	105-67-9	0.036 Y	14. X
U102	Dimethyl phthalate		Dimethyl phthalate	131-11-3	0.54 X	28. X
U105	2,4-Dinitrotoluene		2,4-Dinitrotoluene	121-14-2	0.32 Y	140. X
U106	2,6-Dinitrotoluene		2,6-Dinitrotoluene	606-20-2	0.55 Y	28. X
U107	Di-n-octyl phthalate		Di-n-octyl phthalate	117-84-0	0.54 X	28. X
U108	1,4-Dioxane		1,4-Dioxane	123-91-1	0.12 Y	170. X

U111	Di-n-propyl-nitroso-amine		Di-n-propyl-nitroso-amine	621-64-7		0.40 Y	14. X
U112	Ethyl acetate		Ethyl acetate	141-78-6		0.34 Y	33. X
U117	Ethyl ether		Ethyl ether	60-29-7		0.12 Y	160. X
U118	Ethyl meth-acrylate		Ethyl meth-acrylate	97-63-2		0.14 Y	160. X
U120	Fluoranthene		Fluoranthene	206-44-0		0.068 Y	8.2 X
U121	Trichloro-monofluoro methane		Trichloro-monofluoro-methane	75-69-4		0.020 Y	33. X
U127	Hexa-chloro-benzene		Hexachloro-benzene	118-74-1		0.055 Y	37. X
U128	Hexa-chloro-butadiene		Hexachloro-butadiene	87-68-3		0.055 Y	28. X
U129	Lindane		alpha-BHC	319-84-6	Y	0.00014	0.066 X
			beta-BHC	319-85-7		0.00014	0.066 X
			Delta-BHC	319-86-8		0.023	0.066 X
			gamma-BHC (Lindane)	58-89-9		0.0017	0.066 X
U130	Hexa-chloro-cyclo-pentadiene		Hexachloro-cyclopenta-diene	77-47-7		0.057 Y	3.6 X
U131	Hexa-chloro-ethane		Hexachloro-ethane	67-72-1		0.055 Y	28. X
U134	Hydrogen fluoride	Table D	Fluoride	16964-48-8		35.	NA
U136	Cacodylic acid	Table A	Arsenic	7440-38-2		0.79	NA

U137	Indeno-(1,2,3-c,d)-pyrene		Indeno-(1,2,3-c,d)pyrene	193-39-5	Y	0.0055	8.2 X
U138	Iodomethane		Iodomethane	74-88-4		0.19 Y	65. X
U140	Isobutyl alcohol		Isobutyl alcohol	78-83-1		5.6	170. X
U141	Isosafrole		Isosafrole	120-58-1		0.081	2.6 X
U142	Kepone		Kepone	143-50-8		0.0011	0.13 X
U144	Lead acetate	Table A	Lead	7439-92-1		0.040	NA
U145	Lead phosphate	Table A	Lead	7439-92-1		0.040	NA
U146	Lead subacetate	Table A	Lead	7439-92-1		0.040	NA
U151	Mercury	Tables A & D	Mercury	7439-97-6		0.030	NA
U152	Meth-acrylo-nitrile		Methacrylo-nitrile	126-98-7		0.24 Y	84. X
U155	Methapyrilene		Methapyrilene	91-80-5		0.081	1.5 X
U157	3-Methyl-cholanthrene		3-Methyl-cholanthrene	56-49-5	Y	0.0055	15. X
U158	4,4'-Methylene-bis(2-chloro-4'-aniline)		Methylene-bis(2-chloro-aniline)	101-14-4		0.50 Y	35. X
U159	Methyl ethyl ketone		Methyl ethyl ketone	78-93-3		0.28	36. X
U161	Methyl isobutyl ketone		Methyl isobutyl ketone	108-10-1		0.14	33. X

U162	Methyl methacrylate		Methyl methacrylate	80-62-6	0.14	160. X
U165	Naphthalene		Naphthalene	91-20-3	0.059 Y	3.1 X
U168	2-Naphthylamine	Table D	2-Naphthylamine	91-59-8	0.52 Y	NA
U169	Nitrobenzene		Nitrobenzene	98-95-3	0.068 Y	14. X
U170	4-Nitrophenol		4-Nitrophenol	100-02-7	0.12 Y	29. X
U172	N-Nitroso-di-n-butylamine		N-Nitroso-di-n-butylamine	924-16-3	0.40 Y	17. X
U174	N-Nitrosodiethylamine		N-Nitrosodiethylamine	55-18-5	0.40 Y	28. X
U179	N-Nitrosopiperidine		N-Nitrosopiperidine	100-75-4	0.013 Y	35. X
U180	N-Nitrosopyrrolidine		N-Nitrosopyrrolidine	930-55-2	0.013 Y	35. X
U181	5-Nitro-o-toluidine		5-Nitro-o-toluidine	99-55-8	0.32 Y	28. X
U183	Pentachlorobenzene		Pentachlorobenzene	608-93-5	0.055 Y	37. X
U185	Pentachloronitrobenzene		Pentachloronitrobenzene	82-68-8	0.055 Y	4.8 X
U187	Phenacetin		Phenacetin	62-44-2	0.081	16. X
U188	Phenol		Phenol	108-95-2	0.039	6.2 X

U190	Phthalic anhydride (measured as Phthalic acid)		Phthalic anhydride (measured as Phthalic acid)	85-44-9	0.54 X	28. X
U192	Pronamide		Pronamide	23950-58-5	0.093	1.5 X
U196	Pyridine		Pyridine	110-86-1	0.014 Y	16. X
U203	Safrole		Safrole	94-59-7	0.061	22. X
U204	Selenium dioxide	Table A	Selenium	7782-49-2	1.0	NA
U205	Selenium sulfide	Table A	Selenium	7782-49-2	1.0	NA
U207	1,2,4,5-Tetra-chloro-benzene		1,2,4,5-Tetra-chloro-benzene	95-94-3	0.055 Y	19. X
U208	1,1,1,2-Tetra-chloro-ethane		1,1,1,2-Tetra-chloro-ethane	630-20-6	0.057	42. X
U209	1,1,2,2-Tetra-chloro-ethane		1,1,2,2-Tetra-chloro-ethane	79-34-5	0.057 Y	42. X
U210	Tetra-chloro-ethylene		Tetra-chloro-ethylene	127-18-4	0.056 Y	5.6 X
U211	Carbon tetra-chloride		Carbon tetra-chloride	56-53-5	0.057 Y	5.6 X
U214	Tallium(I) acetate	Table D	Thallium	7440-28-0	0.14 Y	NA
U215	Thallium(I) carbonate	Table D	Thallium	7440-28-0	0.14 Y	NA
U216	Thallium(I) chloride	Table D	Thallium	7440-28-0	0.14 Y	NA

U217	Thallium(I) nitrate	Table D	Thallium	7440-28-0	0.14 Y	NA
U220	Toluene		Toluene	108-88-3	0.080 Y	28. X
U225	Tribromo-methane (Bromoform		Tribromo-methane (Bromoform)	75-25-2	0.63 Y	15. X
U226	1,1,1-Tri-chloro-ethane		1,1,1-Tri-chloro-ethane	71-55-6	0.054 Y	5.6 X
U227	1,1,2-Tri-chloro-ethane		1,1,2-Tri-chloro-ethane	79-00-5	0.054 Y	5.6 X
U228	Trichloro-ethylene		Trichloro-ethylene	79-01-6	0.054 Y	5.6 X
U235	tris-(2,3-Dibromo-propyl)-phosphate		tris-(2,3-Dibromo-propyl)-phosphate	126-72-7	0.025	0.10 X
U239	Xylenes		Xylene	s	0.32 Y	28. X
U240	2,4-Di-chloro-phenoxy-acetic acid		2,4-Di-chloro-phenoxy-acetic acid	94-75-7	0.72	10. X
U243	Hexa-chloro-propene		Hexachloro-propene	1988-71-7	0.095 Y	28.
U247	Methoxy-chlor		Methoxy-chlor	72-43-5	0.25 Y	0.18 X

X Treatment standards for this organic constituent were established based upon incineration in units operated in accordance with the technical requirements of 35 Ill. Adm. Code 724.Subpart O or 725.Subpart O, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may certify compliance with these treatment standards according to provisions in Section 728.107.

Y Based on analysis of composite samples.

Z As analyzed using SW-846 Method 9010; sample size: 0.5-10; distillation time: one hour to one hour fifteen minutes.

NA Not Applicable.

(Source: Amended at 15 Ill. Reg. , effective

Section 728.Table C Technology Codes and Description of Technology-Based Standards

Technology code	Description of technology-based standard
ADGAS	Venting of compressed gases into an absorbing or reacting media (i.e., solid or liquid)--venting can be accomplished through physical release utilizing values/piping; physical penetration of the container; and/or penetration through detonation.
AMLGM	Amalgamation of liquid, elemental mercury contaminated with radioactive materials utilizing inorganic reagents such as copper, zinc, nickel, gold, and sulfur that result in a nonliquid, semi-solid amalgam and thereby reducing potential emissions of elemental mercury vapors to the air.
BIODG	Biodegradation of organics or non-metallic inorganics (i.e., degradable inorganics that contain the elements of phosphorus, nitrogen, and sulfur) in units operated under either aerobic or anaerobic conditions such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., Total Organic Carbon can often be used as an indicator parameter for the biodegradation of many organic constituents that cannot be directly analyzed in wastewater residues).
CARBN	Carbon adsorption (granulated or powdered) of non-metallic inorganics, organo-metallics, and/or organic constituents, operated such that a surrogate compound or indicator parameter has not undergone breakthrough (e.g., Total Organic Carbon can often be used as an indicator parameter for the adsorption of many organic constituents that cannot be directly analyzed in wastewater residues). Breakthrough occurs when the carbon has become saturated with the constituent (or indicator parameter) and substantial change in adsorption rate associated with that constituent occurs.
CHOXD	Chemical or electrolytic oxidation utilizing the following oxidation reagents (or waste reagents) or combinations or reagents: 1) Hypochlorite (e.g. bleach); 2) chlorine; 3) chlorine dioxide;

4) ozone or UV (ultraviolet light) assisted ozone;

5) peroxides;

6) persulfates;

7) perchlorates;

8) permangantes; and/or

9) other oxidizing reagents of equivalent efficiency, performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., Total Organic Carbon can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues). Chemical oxidation specifically includes what is commonly referred to as alkaline chlorination.

CHRED Chemical reduction utilizing the following reducing reagents (or waste reagents) or combinations of reagents:

1) Sulfur dioxide;

2) sodium, potassium, or alkali salts of sulfites, bisulfites, metabisulfites, and polyethylene glycols (e.g., NaPEG and KPEG);

3) sodium hydrosulfide;

4) ferrous salts; and/or

5) other reducing reagents of equivalent efficiency, performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., Total Organic Halogens can often be used as an indicator parameter for the reduction of many halogenated organic constituents that cannot be directly analyzed in wastewater residues). Chemical reduction is commonly used for the reduction of hexavalent chromium to the trivalent state.

DEACT Deactivation to remove the hazardous characteristics of a waste due to its ignitability, corrosivity, and/or reactivity.

FSUBS Fuel substitution in units operated in accordance with applicable technical operating requirements.

HLVIT Vitrification of high level mixed radioactive wastes in units in compliance with all applicable radioactive protection requirements under control of the Nuclear Regulatory Commission.

IMERC Incineration of wastes containing organics and mercury in units operated in accordance with the technical operating requirements of 35 Ill. Adm. Code 724.Subpart O or 725.Subpart O. All wastewater and nonwastewater residues derived from this process must then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories (e.g., High or Low Mercury Subcategories).

INCIN Incineration in units operated in accordance with the technical operating requirements of 35 Ill. Adm. Code 724.Subpart O or 725.Subpart O.

LLEXT Liquid-liquid extraction (often referred to as solvent extraction) of organics from liquid wastes into an immiscible solvent for which the hazardous constituents have a greater solvent affinity, resulting in an extract high in organics that must undergo either incineration, reuse as a fuel, or other recovery/reuse and a raffinate (extracted liquid waste) proportionately low in organics that must undergo further treatment as specified in the standard.

MACRO Macroencapsulation with surface coating materials such as polymeric organics (e.g. resins and plastics) or with a jacket of inert inorganic materials to substantially reduce surface exposure to potential leaching media. Macroencapsulation specifically does not include any material that would be classified as a tank or container according to 35 Ill. Adm. Code 720.110.

NEUTR Neutralization with the following reagents (or waste reagents) or combinations of reagents:

1) Acids;

2) bases; or

3) water (including wastewaters) resulting in a pH greater than 2 but less than 12.5 as measured in the aqueous residuals.

NLDBR No land disposal based on recycling.

PRECP Chemical precipitation of metals and other inorganics as insoluble precipitates of oxides, hydroxides, carbonates, sulfides, sulfates, chlorides, flourides, or phosphates. The following reagents (or waste reagents) are typically used alone or in combination:

1) Lime (i.e., containing oxides and/or hydroxides of calcium and/or magnesium;

2) caustic (i.e., sodium and/or potassium hydroxides;

3) soda ash (i.e., sodium carbonate);

4) sodium sulfide;

5) ferric sulfate or ferric chloride;

6) alum; or

7) sodium sulfate. Additional floculating, coagulation, or similar reagents/processes that enhance sludge dewatering characteristics are not precluded from use.

RBERY Thermal recovery of Beryllium.

RCGAS Recovery/reuse of compressed gases including techniques such as reprocessing of the gases for reuse/resale; filtering/adsorption of impurities; remixing for direct reuse of resale; and use of the gas as a fuel source.

RCORR Recovery of acids or bases utilizing one or more of the following recovery technologies:

1) Distillation (i.e., thermal concentration);

2) ion exchange;

3) resin or solid adsorption;

4) reverse osmosis; and/or

5) incineration for the recovery of acid--Note: this does not preclude the use of other physical phase separation or concentration techniques such as decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies.

RLEAD Thermal recovery of lead in secondary lead smelters.

RMERC Retorting or roasting in a thermal processing unit capable of volatilizing mercury and subsequently condensing the volatilized mercury for recovery. The retorting or roasting unit (or facility) must be subject to one or more of the following:

a) A National Emissions Standard for Hazardous Air Pollutants (NESHAP) for mercury (40 CFR 61, Subpart E);

b) A Best Available Control Technology (BACT) or a Lowest Achievable Emission Rate (LAER) standard for mercury imposed pursuant to a Prevention of Significant Deterioration (PSD) permit (including 35 Ill. Adm. Code 201 through 203); or

c) A state permit that establishes emission limitations (within meaning of Section 302 of the Clean Air Act) for mercury, including a permit issued pursuant to 35 Ill. Adm. Code 201. All wastewater and nonwastewater residues derived from this process must then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories (e.g., High or Low Mercury Subcategories).

RMETL Recovery of metals or inorganics utilizing one or more of the following direct physical/removal technologies:

1) Ion exchange;

2) resin or solid (i.e., zeolites) adsorption;

3) reverse osmosis;

4) chelation/solvent extraction;

5) freeze crystalization;

6) ultrafiltration; and/or 6 simple precipitation (i.e., crystalization)

Note: this does not preclude the use of other physical phase separation or concentration techniques such as decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies.

RORGS Recovery of organics utilizing one or more of the following technologies:

1) Distillation;

2) thin film evaporation;

3) steam stripping;

4) carbon adsorption;

5) critical fluid extraction;

6) liquid-liquid extraction;

7) precipitation/ crystallization (including freeze crystallization); or

8) chemical phase separation techniques (i.e., addition of acids, bases, demulsifiers, or similar chemicals);

Note: This does not preclude the use of other physical phase separation techniques such as decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies.

RTHRM Thermal recovery of metals or inorganics from nonwastewaters in units defined as cement kilns, blast furnaces, smelting, melting and refining furnaces, combustion devices used to recover sulfur values from spent sulfuric acid and "other devices" determined by the Agency pursuant to 35 Ill. Adm. Code 720.110, the definition of "industrial furnaces".

RZINC Resmelting in for the purpose of recovery of zinc high temperature metal recovery units.

STABL Stabilization with the following reagents (or waste reagents) or combinations of reagents:

1) Portland cement; or

2) lime/ pozzolans (e.g., fly ash and cement kiln dust)--this does not preclude the addition of reagents (e.g., iron salts, silicates, and clays) designed to enhance the set/cure time and/or compressive strength, or to overall reduce the leachability of the metal or inorganic.

SSTRP Steam stripping of organics from liquid wastes utilizing direct application of steam to the wastes operated such that liquid and vapor flow rates, as well as, temperature and pressure ranges have been optimized, monitored, and maintained. These operating parameters are dependent upon the design parameters of the unit such as, the number of separation stages and the internal column design. Thus, resulting in a condensed extract high in organics that must undergo

either incineration, reuse as a fuel, or other recovery/reuse and an extracted wastewater that must undergo further treatment as specified in the standard.

WETOX Wet air oxidation performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., Total Organic Carbon can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues).

WTRRX Controlled reaction with water for highly reactive inorganic or organic chemicals with precautionary controls for protection of workers from potential violent reactions as well as precautionary controls for potential emissions of toxic/ ignitable levels of gases released during the reaction.

Note 1: When a combination of these technologies (i.e., a treatment train) is specified as a single treatment standard, the order of application is specified in Table D by indicating the five letter technology code that must be applied first, then the designation "fb." (an abbreviation for "followed by"), then the five letter technology code for the technology that must be applied next, and so on.

Note 2: When more than one technology (or treatment train) are specified as alternative treatment standards, the five letter technology codes (or the treatment trains) are separated by a semicolon (;) with the last technology preceded by the word "OR". This indicates that any one of these BDAT technologies or treatment trains can be used for compliance with the standard.

(Source: Added at 15 Ill. Reg. , effective

Section 728.Table D Technology-Based Standards by RCRA Waste Code

WASTE CODES	SEE ALSO	CAS NO.	TECHNOLOGY CODE WASTEWATERS	TECHNOLOGY CODE NONWASTEWATERS	WASTE DESCRIPTIONS AND/OR TREATMENT SUBCATEGORY
D001		NA	DEACT	NA	Ignitable Liquids based on 35 Ill. Adm. Code 721.121(a)(1)--wastewaters
D001		NA	NA	DEACT	Ignitable Liquids based on 35 Ill. Adm. Code 721.121(a)(1)--Low TOC Ignitable Liquids Subcategory--Less than 10% total organic carbon
D001		NA	NA	FSUBS; RORGS; or INCIN	Ignitable Liquids based on 35 Ill. Adm. Code 721.121(a)(1)--High TOC Ignitable Liquids Subcategory--Greater than or equal to 10% total organic carbon

D001	NA	NA	DEACT**	Ignitable compressed gases based on 35 Ill. Adm. Code 721.121(a)(3
D001	NA	NA	DEACT	Ignitable reactives 35 Ill. Adm. Code 721.121(a)(2
D001	NA	DEACT	DEACT	Oxidizers based on 35 Ill. Adm. Code 721.121(a)(4
D002	NA	DEACT	DEACT	Acid subcategory based on 35 Ill. Adm. Code 721.122(a)(1
D002	NA	DEACT	DEACT	Alkaline subcategory based on 35 Ill. Adm. Code 721.122(a)(1
D002	NA	DEACT	DEACT	Other corrosives based on 35 Ill. Adm. Code 721.122(a)(2

D003	NA	DEACT	DEACT	Reactive sulfides based on 35 Ill. Adm. Code 721.123(a)(5
D003	NA	DEACT	DEACT	Explosives based on 35 Ill. Adm. Code 721.123(a)(6), (7) and (8)
D003	NA	NA	DEACT	Water reactives based on 35 Ill. Adm. Code 721.123(a)(2), (3) and (4)
D003	NA	DEACT	DEACT	Other reactives based on 35 Ill. Adm. Code 721.123(a)(1
D006	7440-43-9	NA	RTHERM	Cadmium containing batteries

D008		7439-82-1	NA	RLEAD	Lead acid batteries (Note: This standard only applies to lead acid batteries that are identified as RCRA hazardous wastes and that are not excluded elsewhere from regulation under the land disposal restrictions of this Part or exempted under other regulations (see 35 Ill. Adm. Code 726.180).)
D009	Tables A & B	7439-87-6	NA	IMERC; or RMERC	Mercury: (High Mercury Subcategory--greater than or equal to 260 mg/kg total Mercury--contains mercury and organics (and are not incinerator residues))

D009	Tables A & B	7439-87-6	NA	RMERC	Mercury: (High Mercury Subcategory--greater than or equal to 260 mg/kg total Mercury--inorganics (including incinerator residues and residues from RMERC))
D012	Table B	72-20-8	BIODG; or INCIN	NA	Endrin
D013	Table B	58-89-9	CARBN; or INCIN	NA	Lindane
D014	Table B	72-43-6	WETOX; or INCIN	NA	Methoxychlor
D015	Table B	8001-35-1	BIODG; or INCIN	NA	Toxaphene
D016	Table B	94-75-7	CHOXD; BIODG; or INCIN	NA	2,4-D
D017	Table B	93-72-1	CHOXD; or INCIN	NA	2,4,5-TP
F005	Tables A & B	79-46-9	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	2-Nitropropane
F005	Tables A & B	110-80-5	BIODG; or INCIN	INCIN	2-Ethoxyethanol
F024	Tables A & B	NA	INCIN	INCIN	----------

K025	NA	LLEXT fb SSTRIP fb CARBN; or INCIN	INCIN	Distillation bottoms from the production of nitrobenzene by the nitration of benzene
K026	NA	INCIN	INCIN	Stripping still tails from the production of methyl ethyl pyridines
K027	NA	CARBN; or INCIN	FSUBS; or INCIN	Centrifuge and distillation residues from toluene diisocyanate production
K039	NA	CARBN; or INCIN	FSUBS; or INCIN	Filter cake from the filtration of diethylphosphorodithioc acid in the production of phorate
K044	NA	DEACT	DEACT	Wastewater treatment sludges from the manufacturing and processing of explosives
K045	NA	DEACT	DEACT	Spent carbon from the treatment of wastewater containing explosives

K047		NA	DEACT	DEACT	Pink/red water from TNT operations
K061	Table B	NA	NA	NLDBR	Emission control dust/sludge from the primary production of steel in electric furnaces (High Zinc Subcategory--greater than or equal to 15% total Zinc)
K069	Tables A & B	NA	NA	RLEAD	Emission control dust/sludge from secondary lead smelting: Non-Calcium Sulfate Subcategory
K106	Tables A & B	NA	NA	RMERC	Wastewater treatment sludge from the mercury cell process in chlorine production: (High Mercury Subcategory-greater than or equal to 260 mg/kg total mercury)

K113	NA	CARBN; or INCIN	FSUBS; or INCIN	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene
K114	NA	CARBN; or INCIN	FSUBS; or INCIN	Vicinals from the purification of toluenediame in the production of toluenediamine via hydrogenation of dinitrotoluene
K115	NA	CARBN; or INCIN	FSUBS; or INCIN	Heavy ends from the purification of toluenediame in the production of toluenediamine via hydrogenation of dinitrotoluene

K116	NA	CARBN; or INCIN	FSUBS; or INCIN	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine
P001	81-81-2	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Warfarin (>0.3%)
P002	591-08-2	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	1-Acetyl-2-thiourea
P003	107-02-8	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Acrolein
P005	107-18-6	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Allyl alcohol
P006	20859-73-8	CHOXD; CHRED; or INCIN	CHOXD; CHRED; or INCIN	Aluminum phosphide
P007	2763-96-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	5-Aminoethyl 3-isoxazolol
P008	504-24-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	4-Aminopyridine

P009		131-74-8	CHOXD; CHRED; CARBN; BIODG; or INCIN	FSUBS; CHOXD; CHRED; or INCIN	Ammonium picrate
P014		108-95-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Thiophenol (Benzene thiol)
P015		7440-41-7	NA	RMETL; or RTHRM	Beryllium dust
P016		542-88-1	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Bis(chloro-methyl)ether
P017		598-31-2	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Bromoacetone
P018		357-57-3	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Brucine
P022	Table B	75-15-0	NA	INCIN	Carbon disulfide
P023		107-20-0	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Chloroacetal dehyde
P026		5344-82-1	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	1-(o-Chloro-phenyl)thio-urea
P027		542-76-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	3-Chloro-propio-nitrile
P028		100-44-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Benzyl chloride

P031	460-19-5	CHOXD; WETOX; or INCIN	CHOXD; WETOX; or INCIN	Cyanogen
P033	506-77-4	CHOXD; WETOX; or INCIN	CHOXD; WETOX; or INCIN	Cyanogen chloride
P034	131-89-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	2-Cyclo-hexyl-4,6-dinitro-phenol
P040	297-97-2	CARBN; or INCIN	FSUBS; or INCIN	O,O-Diethyl O-pyrazinyl phosphoro-thioate
P041	311-45-5	CARBN; or INCIN	FSUBS; or INCIN	Diethyl-p-nitrophenyl phosphate
P042	51-43-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Epinephrine
P043	55-91-4	CARBN; or INCIN	FSUBS; or INCIN	Diisopropyl-fluoro-phosphate (DFP)
P044	60-51-5	CARBN; or INCIN	FSUBS; or INCIN	Dimethoate
P045	39196-18-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Thiofanox
P046	122-09-8	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	alpha,alpha-Dimethyl-phenethyl-amine
P047	534-52-1	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	4,6-Dinitro-o-cresol salts

P049		541-53-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	2,4-Dithio-biuret
P054		151-56-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Aziridine
P056	Table B	7782-41-4	NA	ADGAS fb NEUTR	Fluorine
P057		640-19-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Fluoro-acetamide
P058		62-74-8	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Fluoroacetic acid, sodium salt
P062		757-58-4	CARBN; or INCIN	FSUBS or INCIN	Hexaethyl-tetra-phosphate
P064		624-83-9	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Isocyanic acid, ethyl ester
P065	Tables A & B	628-86-4	NA	RMERC	Mercury fulminate: (High Mercury Subcategory--greater than or equal to 260 mg/kg total Mercury--either incinerator residues or residues from RMERC)

P065	Tables A & B	628-86-4	NA	IMERC	Mercury fulminate: (All non-wastewaters that are not incinerator residues from RMERC; regardless of Mercury Content)
P066		16752-77-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Methomyl
P067		75-55-8	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	2-Methyl-aziridine
P068		60-34-4	CHOXD; CHRED; CARBN; BIODG; or INCIN	FSUBS; CHOXD; CHRED; OR INCIN	Methyl hydrazine
P069		75-86-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Methyllacto-nitrile
P070		116-06-3	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Aldicarb
P072		86-88-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	1-Naphthyl-2-thiourea
P075		54-11-5*	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Nicotine and salts
P076		10102-43-9	ADGAS	ADGAS	Nitric oxide
P078		10102-44-0	ADGAS	ADGAS	Nitrogen dioxide

P081		55-63-0	CHOXD; CHRED; CARBN; BIODG; or INCIN	FSUBS; CHOXD; CHRED; or INCIN	Nitro-glycerin
P082	Table B	65-75-9	NA	INCIN	N-Nitroso-dimethyl-amine
P084		4549-40-0	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	N-Nitroso-methylvinyl-amine
P085		152-16-9	CARBN; or INCIN	FSUBS; or INCIN	Octamethyl-pyro-phosphor-amide
P087		20816-12-0	NA	RMETL; or RTHRM	Osmium tetroxide
P088		145-73-3	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Endothall
P092	Tables A & B	62-38-4	NA	RMERC	Phenyl mercury acetate: (High Mercury Sub-category-- greater than or equal to 260 mg/kg total Mercury-- either incinerator residues or residues from RMERC)

P092	Tables A & B	62-38-4	NA	IMERC; or RMERC	Phenyl mercury acetate: (All nonwastewaters that are not incinerator residues and are not residues from RMERC: regardless of Mercury Content)
P093		103-85-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Phenylthiourea
P095		75-44-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Phosgene
P096		7803-51-2	CHOXD; CHRED; or INCIN	CHOXD; CHRED; or INCIN	Phosphine
P102		107-19-7	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Propargyl alcohol
P105		26628-22-8	CHOXD; CHRED; CARBN BIODG; or INCIN	FSUBS; CHOXD; CHRED; or INCIN	Sodium azide
P108		57-24-9*	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Strychnine and salts
P109		3689-24-5	CARBN; or INCIN	FSUBS; or INCIN	Tetraethyldithiopyrophosphate

P112		509-14-8	CHOXD; CHRED; CARBN; BIODG; or INCIN	FSUBS; CHOXD; CHRED; or INCIN	Tetranitro-methane
P113	Table B	1314-32-5	NA	RTHRM; or STABL	Thallic oxide
P115	Table B	7446-18-6	NA	RTHRM; or STABL	Thallium (I) sulfate
P116		79-19-6	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Thiosemi-carbazide
P118		75-70-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Trichloro-methanethiol
P119	Table B	7803-55-6	NA	STABL	Ammonium vanadate
P120	Table B	1314-62-1	NA	STABL	Vanadium pentoxide
P122		1314-84-7	CHOXD; CHRED; or INCIN	CHOXD; CHRED; or INCIN	Zinc Phosphide (<10%)
U001		75-07-0	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Acetaldehyde
U003	Table B	75-05-8	NA	INCIN	Acetonitrile
U006		75-36-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Acetyl chloride
U007		79-06-1	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Acrylamide

U008	79-10-7	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Acrylic acid
U010	50-07-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Mitomycin C
U011	61-82-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Amitrole
U014	492-80-8	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Auramine
U015	115-02-6	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Azaserine
U016	225-51-4	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Benz(c)-acridine
U017	98-87-3	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Benzal chloride
U020	98-09-9	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Benzene-sulfonyl chloride
U021	92-87-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Benzidine
U023	98-07-7	CHOXD; CHRED; CARBN; BIODG; or INCIN	FSUBS; CHOXD; CHRED; or INCIN	Benzotri-chloride

U026		494-03-1	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Chlor-naphazin
U033		353-50-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Carbonyl fluoride
U034		75-87-6	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Trichloro-acet-aldehyde (Chloral)
U035		305-03-3	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Chlorambucil
U038	Table B	510-15-6	NA	INCIN	Chloro-benzilate
U041		106-89-8	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	1-Chloro-2,3-epoxy-propane (Epichloro-hydrin)
U042	Table B	110-75-8	NA	INCIN	2-Chloro-ethyl vinyl ether
U046		107-30-2	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Chloromethyl methyl ether
U049		3165-93-3	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	4-Chloro-o-toluidine hydro-chloride
U053		4170-30-3	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Croton-aldehyde
U055		98-82-8	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Cumene

U056		110-82-7	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Cyclohexane
U057	Table B	108-94-1	NA	FSUBS; or INCIN	Cyclo-hexanone
U058		50-18-0	CARBN; or INCIN	FSUBS; or INCIN	Cyclophosph-amide
U059		20830-81-3	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Daunomycin
U062		2303-16-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Diallate
U064		189-55-9	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	1,2,7,8-Di-benzopyrene
U073		91-94-1	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	3,3'-Di-chlorobenz-idine
U074		1476-11-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	cis-1,4-Di-chloro-2-butene; trans-1,4-Dichloro-2-butene
U085		1464-53-5	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	1,2:3,4-Di-epoxybutane
U086		1615-80-1	CHOXD; CHRED; CARBN BIODG; or INCIN	FSUBS; CHOXD; CHRED; or INCIN	N,N-Diethyl-hydrazine

U087		3288-58-2	CARBN; or INCIN	FSUBS; or INCIN	O,O-Diethyl S-methyl-dithio-phosphate
U089		56-53-1	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Diethyl stilbestrol
U090		94-58-6	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Dihydro-safrole
U091		119-90-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	3,3'-Di-methoxy-benzidine
U092		124-40-3	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Dimethyl-amine
U093	Table B	621-90-9	NA	INCIN	p-Dimethyl-aminoazo-benzene
U094		57-97-6	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	7,12-Dimethyl-benz(a)-anthracene
U095		119-93-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	3,3'-Dimethyl-benzidine
U096		80-15-9	CHOXD; CHRED; CARBN BIODG; or INCIN	FSUBS; CHOXD; CHRED; or INCIN	alpha,alpha-Dimethyl-benzyl hydro-peroxide
U097		79-44-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Dimethyl-carbamoyl chloride

U098	57-14-7	CHOXD; CHRED; CARBN; BIODG; or INCIN	FSUBS; CHOXD; CHRED; or INCIN	1,1-Dimethylhydrazine
U099	540-73-8	CHOXD; CHRED; CARBN; BIODG; or INCIN	FSUBS; CHOXD; CHRED; or INCIN	1,2-Dimethyl-hydrazine
U103	77-78-1	CHOXD; CHRED; CARBN; BIODG; or INCIN	FSUBS; CHOXD; CHRED; or INCIN	Dimethyl sulfate
U109	122-66-7	CHOXD; CHRED; CARBN; BIODG; or INCIN	FSUBS; CHOXD; CHRED; or INCIN	1,2-Diphenyl-hydrazine
U110	142-84-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Dipropyl-amine
U113	140-88-5	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Ethyl acrylate
U114	111-54-6	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Ethylene-bisdithio-carbamic acid
U115	75-21-8	(WETOX or CHOXD) fb CARBN; or INCIN	CHOXD; or INCIN	Ethylene oxide
U116	96-45-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Ethylene thiourea

U119		62-50-0	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Ethyl methane-sulfonate
U122		50-00-0	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Formaldehyde
U123		64-18-6	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Formic acid
U124		110-00-9	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Furan
U125		98-01-1	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Furfural
U126		765-34-4	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Glycid-aldehyde
U132		70-30-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Hexachloro-phene
U133		302-01-2	CHOXD; CHRED; CARBN BIODG; or INCIN	FSUBS; CHOXD; CHRED; or INCIN	Hydrazine
U134	Table B	7664-39-3	NA	ADGAS fb NEUTR; or NEUTR	Hydrogen Fluoride
U135		7783-06-4	CHOXD; CHRED; or INCIN	CHOXD; CHRED; or INCIN	Hydrogen Sulfide

U143		303-34-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Lasiocarpine
U147		108-31-6	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Maleic anhydride
U148		123-33-1	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Maleic hydrazide
U149		109-77-3	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Malono-nitrile
U150		148-82-3	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Melphalan
U151	Tables A & B	7439-97-6	NA	RMERC	Mercury: (High Mercury Sub-category--greater than or equal to 260 mg/kg total Mercury)
U153		74-93-1	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Methanethiol
U154		67-56-1	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Methanol
U156		79-22-1	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Methyl chloro-carbonate

U160		1338-23-4	CHOXD; CHRED; CARBN BIODG; or INCIN	FSUBS; CHOXD; CHRED; or INCIN	Methyl ethyl ketone peroxide
U163		70-25-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	N-Methyl-N'-nitro-N-Nitroso-guanidine
U164		56-04-2	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Methylthio-uracil
U166		130-15-4	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	1,4-Naphtho-quinone
U167		134-32-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	1-Naphthly-amine
U168	Table B	91-59-8	NA	INCIN	2-Naphthyl-amine
U171		79-46-9	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	2-Nitro-propane
U173		1116-54-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	N-Nitroso-diethanol-amine
U176		759-73-9	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	N-Nitroso-N-ethylurea
U177		684-93-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	N-Nitroso-N-methyl-urea

U178	615-53-2	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	N-Nitroso-N-methyl-urethane
U182	123-63-7	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Paraldehyde
U184	76-01-7	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Pentachloro-ethane
U186	504-60-9	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	1,3-Penta-diene
U189	1314-80-3	CHOXD; CHRED; or INCIN	CHOXD; CHRED; or INCIN	Phosphorus sulfide
U191	109-06-8	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	2-Picoline
U193	1120-71-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	1,3-Propane sultone
U194	107-10-8	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	n-Propyl-amine
U197	106-51-4	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	p-Benzo-quinone
U200	50-55-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Reserpine

U201		108-46-3	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Resorcinol
U202		81-07-2*	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Saccharin and salts
U206		18883-66-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Strepto-zatocin
U213		109-99-9	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Tetrahydro-furan
U214	Table B	563-68-8	NA	RTHRM; or STABL	Thallium (I) acetate
U215	Table B	6533-73-9	NA	RTHRM; or STABL	Thallium (I) carbonate
U216	Table B	7791-12-0	NA	RTHRM; or STABL	Thallium (I) chloride
U217	Table B	10102-45-1	NA	RTHRM; or STABL	Thallium (I) nitrate
U218		62-55-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Thioacet-amide
U219		62-56-6	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Thiourea
U221		25376-45-8	CARBN; or INCIN	FSUBS; or INCIN	Toluenedi-amine
U222		636-21-5	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	o-Toluidine hydro-chloride
U223		26471-62-5	CARBN; or INCIN	FSUBS; or INCIN	Toluene diisocyanate

U234	99-35-4	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	sym-Tri-nitrobenzene
U236	72-57-1	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Trypan Blue
U237	66-75-1	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Uracil mustard
U238	51-79-6	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Ethyl carbamate
U240	94-75-7*	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	2,4-Dichloro-phenoxy-acetic acid (salts and esters)
U244	137-26-8	(WETOX or CHOXD) fb CARBN; or INCIN	INCIN	Thiram
U246	506-68-3	CHOXD; WETOX; or INCIN	CHOXD; WETOX; or INCIN	Cyanogen bromide
U248	81-81-2	(WETOX or CHOXD) fb CARBN; or INCIN	FSUBS; or INCIN	Warfarin (greater than or equal to 3%)
U249	1314-84-7	CHOXD; CHRED; or INCIN	CHOXD; CHRED; or INCIN	Zinc Phosphide (<10%)

* CAS Number given for parent compound only.

** This waste code exists in gaseous form and is not categorized as wastewater or nonwastewater forms.

NA Not Applicable.

BOARD NOTE: When a combination of these technologies (i.e., a treatment train) is specified as a single treatment standard, the order of application is specified in this Table by indicating the five letter technology code that must be applied first, then the designation "fb" (an abbreviation for "Followed by"), then the five letter technology code for the technology that must be applied next, and so on. When more than one technology (or treatment train) are specified a alternative treatment standards, the five letter technology codes (or the treatment trains) are separated by a semicolon (;) with the last technology preceded by the word "or". This indicates that any one of these BDAT technologies or treatment trains can be used for compliance with the standard. See Section 728.Table C for a listing of the technology codes and technology-based treatment standards. Derived from 40 CFR 268.42, Table 2, as adopted at 54 Fed. Reg. 22694, June 1, 1990.

(Source: Added at 15 Ill. Reg. , effective

Section 728.Table E Standards for Radioactive Mixed Waste

WASTE CODES		TECHNOLOGY CODE CAS NO.	NON-WASTEWATERS	WASTE DESCRIPTIONS AND/OR WASTEWATERS SUBCATEGORY
D002	NA	NA	HLVIT	Radioactive High Level Wastes Generated During the Reprocessing of Fuel Rods Subcategory
D004	NA	NA	HLVIT	Radioactive High Level Wastes Generated During the Reprocessing of Fuel Rods Subcategory
D005	NA	NA	HLVIT	Radioactive High Level Wastes Generated During the Reprocessing of Fuel Rods Subcategory
D006	NA	NA	HLVIT	Radioactive High Level Wastes Generated During the Reprocessing of Fuel Rods Subcategory
D007	NA	NA	HLVIT	Radioactive High Level Wastes Generated During the Reprocessing of Fuel Rods Subcategory
D008	7439-92-1	NA	MACRO	Radioactive Lead Solids Subcategory (Note: these lead solids include, but are not limited to, all forms of lead shielding, and other elemental forms of lead. These lead solids do not include treatment residuals such as hydroxide sludges, other wastewater treatment residuals, or incinerator ashes that can undergo conventional pozzolanic stabilization, nor do they include organo-lead materials that can be incinerated and stabilized as ash.)

D008	NA	NA	HLVIT	Radioactive High Level Wastes Generated During the Reprocessing of Fuel Rods Subcategory
D009	7439-97-6	NA	AMLGM	Elemental mercury contaminated with radioactive materials
D009	7439-97-6	NA	INCIN	Hydraulic oil contaminated with Mercury Radioactive Materials Subcategory
D009	NA	NA	HLVIT	Radioactive High Level Wastes Generated During the Reprocessing of Fuel Rods Subcategory
D010	NA	NA	HLVIT	Radioactive High Level Wastes Generated During the Reprocessing of Fuel Rods Subcategory
D011	NA	NA	HLVIT	Radioactive High Level Wastes Generated During the Reprocessing of Fuel Rods Subcategory
U151	7439-97-6	NA	AMLGM	Mercury: Elemental mercury contaminated with radioactive materials

NA--Not Applicable.

(Source: Added at 15 Ill. Reg. , effective