ILLINOIS POLLUTION CONTROL BOARD
December 20, 1985

IN THE MATTER OF:	)	
	)	
RCRA UPDATE, USEPA REGULATIONS (4/24/84 THROUGH 6/30/85)	)	R85-22

FINAL ORDER, ADOPTED RULE

ORDER OF THE BOARD (by J. Anderson):

On October 10, 1985, the Board proposed to amend the RCRA regulations to reflect amendments to United States Environmental Protection Agency regulations from April 24, 1984 through June 30, 1985. The proposal appeared on November 1, 1985, at 9 Ill. Reg. 16536. The Board has modified the proposal in response to public comment as will be outlined in the Opinion to be adopted. The Board hereby adopts the amendments to 35 Ill. Adm. Code 106, 703, 720, 721, 722, 724, 725 and 726 as set forth in the attached Illinois Register text for publication.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certifies that the above Order was adopted on the 20th day of December, 1985, by a vote of 6-0.

Dorothy M. Gunn

Dorothy M. Gunn, Clerk
Illinois Pollution Control Board

POLLUTION CONTROL BOARD

TEXT OF ADOPTED AMENDMENTS

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE A: GENERAL PROVISIONS
CHAPTER I: POLLUTION CONTROL BOARD

PART 106
HEARINGS PURSUANT TO SPECIFIC RULES

SUBPART A: HEATED EFFLUENT DEMONSTRATIONS

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APPENDIX Old Rule Numbers Referenced

AUTHORITY: Implementing Sections 5, 22.4, 27, 28 and 28.1 and authorized by Section 26 of the Environmental Protection Act (Ill. Rev. Stat. 1983, ch. 111½, pars. 1005, 1022.4, 1027, 1028, 1028.1 and 1026).

SOURCE: Filed with Secretary of State January 1, 1978; amended at 4 Ill. Reg. 2, page 186, effective December 27, 1979; codified at 6 Ill. Reg. 8357; amended in R85-22 at Ill. Reg. effective

SUBPART D: SOLID WASTE AND BOILER DETERMINATIONS

Section 106.401 Petition

a) Any person seeking, pursuant to 35 Ill. Adm. Code 720.130 or 720.132, a determination that a material is not a solid waste or that an enclosed device, using controlled flame combustion, is a boiler, must file a petition with the Board.

b) The petition must include the information specified in 35 Ill. Adm. code 720.130 et seq., for the type of determination sought. In addition, the petitioner must include the following information:

1) Name of the petitioner;

2) Location of the facility; and

3) A reference to prior Board Orders affecting the facility.

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

Section 106.402 Notice of Petition

a) The petitioner shall serve a copy of the petition on the Agency.

b) The Agency shall give notice of the filing of the petition as provided in 35 Ill. Adm. Code 104.142.

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

Section 106.403 Recommendation

The Agency shall file its recommendation in accordance with 35 Ill. Adm. Code 104.180.

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

Section 106.404 Response

The petitioner may respond to the recommendation in accordance with 35 Ill. Adm. Code 104.181.

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

Section 106.405 Public Comment

Any person may comment on the petition and recommendation within 45 days after the Agency files its recommendation, in accordance with 35 Ill. Adm. Code 104.183.

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

Section 106.406 Public Hearings

a) The Board will conduct a hearing on all petitions for determinations pursuant to this Subpart.

b) The Hearing Officer will give notice of the hearing pursuant to 35 Ill. Adm. Code 104.200(d).

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

Section 106.407 Decision

a) The Board will enter an Order supported by a written Opinion setting forth the reasons for the Board's action, including all findings of fact and conclusions of law.

b) As required by Section 28.1 of the Environmental Protection Act (Ill. Rev. Stat. 1983, ch. 111½, par. 1028.1), *Orders and Opinions will be maintained by the Clerk of the Board for public inspections. A listing of all determinations made pursuant to this Subpart will be published in the Environmental Register at the end of each fiscal year.*

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

Section 106.408 Appeal

Any final determination of the Board may be appealed pursuant to Section 41 of the Environmental Protection Act (Ill. Rev. Stat. 1983, ch. 111½, par. 1041).

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

POLLUTION CONTROL BOARD

TEXT OF ADOPTED AMENDMENTS

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

SUBPART E: SHORT TERM AND PHASED PERMITS

SUBPART F: PERMIT CONDITIONS

AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1983, ch. 111 1/2, pars. 1022.4 and 1027).

SOURCE: Adopted in R82-19 at 7 Ill. Reg. 14289, effective December 27, 1983; amended in R84-9 at 9 Ill. Reg. 11899, effective July 24, 1985; amended in R85-22 at Ill. Reg. effective

POLLUTION CONTROL BOARD

TEXT OF ADOPTED AMENDMENTS

SUBPART A: GENERAL PROVISIONS

Section 703.110 References

a) When used in this Part the following publications are incorporated by reference:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846 ~~(First Edition, 1980, as updated by Revisions A (August 1980), B (July, 1981), and C (February, 1982))~~ or (Second Edition, 1982 as amended by Update I (April, 1984) and Update II (April, 1985)). ~~The first edition of SW-846 is no longer in print. Revisions A and B are available from EPA, Office of Solid Waste, (WH-565B), 401 M Street, S.W., Washington, D.C. 20460. Revision C is available from NTIS, 5285 Port Royal Road, Springfield, Virginia 22161.~~ The second edition of SW-846 and Updates I and II are ~~includes material from the first edition and Revisions A, B, and C in a reorganized format.~~ It is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, 20401 (202) 783-3238, on a subscription basis, and ~~future~~ updates will ~~automatically be mailed to the subscriber.~~

b) The references listed in paragraph (a) are also available for inspection at the offices of the Pollution Control Board. This incorporation includes no later amendments or editions.

(Source: Amended at 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 shall 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). Including, where applicable, as part of the inspection schedule, specific requirements in 35 Ill. Adm. Code 724.274, 724.294, 724.326, 724.354, 724.373 and 724.403;

f) A justification of any request for a waiver(s) 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 Sections 724.300, 724.327, 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);

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 and 724.218. 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 and 724.451;

n) For existing facilities, documentation that a notice has been placed in the deed or appropriate alternate instrument as required by 35 Ill. Adm. Code 724.220;

o) The most recent closure cost estimate for the facility prepared in accordance with 35 Ill. Adm. Code 724.242 plus a copy of the financial assurance mechanism adopted in compliance with 35 Ill. Adm. Code 724.243;

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 financial assurance mechanism adopted in compliance with 35 Ill. Adm. Code 724.245;

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 should use larger contour intervals to adequately show topographic profiles of facilities. The map shall 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 will allow the use of other scales on a case by case basis.)

t) Applicants may be required to submit such information as may be necessary to enable the Agency to determine whether a permit should be issued and what conditions to impose in any permit issued.

(Board Note: See 40 CFR 270.14(b).)

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

Section 703.202 Tanks

For facilities that use tanks to store or treat hazardous waste, except as otherwise provided in 35 Ill. Adm. Code 724.290, description of design and operation procedures which demonstrate compliance with the requirements of 35 Ill. Adm. Code 724.291, 724.292, 724.298 and 724.299, including:

a) References to design standards or other available information used (or to be used) in design and construction of the tank;

b) A description of design specifications including identification of construction materials and liningmaterials (include pertinent characteristics such as corrosion or erosion resistance);

c) Tank dimensions, capacity and shell thickness;

d) A diagram of piping, instrumentation and process flow;

e) Description of feed systems, safety cutoff, bypass systems and pressure controls (e.g., vents);

f) Description of procedures for handling incompatible ignitable or reactive wastes, including the use of buffer zones.

g) Where applicable, a description of the containment and detection systems to demonstrate compliance with 35 Ill. Adm. Code 724.300(a) must include at least the following:

1) Drawings and a description of the basic design parameters, dimensions and materials of construction of the containment system.

2) Capacity of the containment system relative to the design capacity of the tank(s) within the system.

3) Description of the system to detect leaks and spills, and how precipitation and run-on will be prevented from entering into the detection system.

(Board Note: See 40 CFR 270.16~~122.25(b)(2)~~.)

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

Section 703.203 Surface Impoundments

For facilities that store, treat or dispose of hazardous waste in surface impoundments, except as otherwise provided in 35 Ill. Adm. Code 724.101, the Part B application must include:

a) A list of the hazardous wastes placed or to be placed in each surface impoundment;

b) Detailed plans and an engineering report describing how the surface impoundment is or will be designed, constructed, operated and maintained to meet the requirements of 35 Ill. Adm. Code 724.321. This submission must address the following items as specified in that Section:

1) The liner system (except for an existing portion of a surface impoundment). If an exemption from the requirement for a liner is sought as provided by 35 Ill. Adm. Code 724.321(b), submit detailed plans and engineering and hydrogeologic reports as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituents into the groundwater or surface water at any future time;

2) Prevention of overtopping; and

3) Structural integrity of dikes;

c) If an exemption from 35 Ill. Adm. Code 724.Subpart F is sought, as provided by 35 Ill. Adm. Code 724.322(a), detailed plans and an engineering report explaining the location of the saturated zone in relation to the surface impoundment, and the design of a double-liner system that incorporates a leak detection system between the liner;

d) A description of how each surface impoundment, including the liner and cover systems and appurtenances for control of overtopping, will be inspected in order to meet the requirements of 35 Ill. Adm. Code 724.326(a) and (b). This information should be included in the inspection plan submitted under Section 703.183(e);

e) A certification by a qualified engineer which attests to the structural integrity of each dike, as required under 35 Ill. Adm. Code 724.326(c). For new units, the owner or operator must submit a statement by a qualified engineer that ~~he~~the engineer will provide such a certification upon completion of construction in accordance with the plans and specifications;

f) A description of the procedure to be used for removing a surface impoundment from service, as required under 35 Ill. Adm. Code 724.327(b) and (c). This information should be included in the contingency plan submitted under Section 703.183(g);

g) A description of how hazardous waste residues and contaminated materials will be removed from the unit at closure, as required under 35 Ill. Adm. Code 724.328

(a)(1). For any wastes not to be removed from the unit upon closure, the owner or operator must submit detailed plans and an engineering report describing how 35 Ill. Adm. Code 724.328(a)(2) and (b) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under Section 703.183(m);

h) If ignitable or reactive wastes are to be placed in a surface impoundment, an explanation of how 35 Ill. Adm. Code 724.329 will be complied with;

i) If incompatible wastes, or incompatible wastes and materials, will be placed in a surface impoundment, an explanation of how 35 Ill. Adm. Code 724.330 will be complied with.

j) A waste management plan for hazardous waste numbers F020, F021, F022, F023, F026 and F027 describing how the surface impoundment is or will be designed, constructed, operated and maintained to meet the requirements of 35 Ill. Adm. Code 724.331. This submission must address the following items as specified in that Section:

1) The volume, physical and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

2) The attenuative properties of underlying and surrounding soils or other materials;

3) The mobilizing properties of other materials co-disposed with these wastes; and

4) The effectiveness of additional treatment, design or monitoring techniques.

(Board Note: See 40 CFR 270.17.)

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

Section 703.204 Waste Piles

For facilities that store or treat hazardous waste in waste piles, except as otherwise provided in 35 Ill. Adm. Code 724.101, the Part B application must include:

a) A list of hazardous wastes placed or to be placed in each waste pile;

b) If an exemption is sought to 35 Ill. Adm Code 724.351 and 724.Subpart F as provided by 724.350(c), an explanation of how the requirements of 35 Ill. Adm. Code 724.350(c) will be complied with;

c) Detailed plans and an engineering report describing how the pile is or will be designed, constructed, operated and maintained to meet the requirements of 35 Ill. Adm. Code 724.351. This submission must address the following items as specified in that Section:

1) The liner system (except for an existing portion of a pile). If an exemption from the requirement for a liner is sought, as provided by 35 Ill. Adm. Code 724.351(b), the owner or operator must submit detailed plans and engineering and hydrogeologic reports as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituents into the groundwater or surface water at any future time;

2) Control of run-on;

3) Control of run-off;

4) Management of collection and holding units associated with run-on and run-off control systems; and

5) Control of wind dispersal of particulate matter, where applicable;

d) If an exemption from 35 Ill. Adm. Code 724.Subpart F is sought as provided by 35 Ill. Adm. Code 724.352 or 724.353, submit detailed plans and an engineering report describing how the requirements of 35 Ill. Adm. Code 724.352(a) or 724.353(a) will be complied with;

e) A description of how each waste pile, including the liner and appurtenances for control of run-on and run-off, will be inspected in order to meet the requirements of 35 Ill. Adm. Code 724.354(a) and (b). This information should be included in the inspection plan

submitted under Section 703.183(g). If an exemption is sought to 35 Ill. Adm. Code 724.Subpart F pursuant to 35 Ill. Adm. Code 724.353, describe in the inspection plan how the inspection requirements of 35 Ill. Adm. Code 724.353(a)(3) will be complied with;

f) If the treatment is carried out on or in the pile, details of the process and equipment used, and the nature and quality of the residuals;

g) If ignitable or reactive wastes are to be placed in a waste pile, an explanation of how the requirements of 35 Ill. Adm. Code 724.356 will be complied with;

h) If incompatible wastes, or incompatible wastes and materials, will be placed in a waste pile, an explanation of how 35 Ill. Adm. Code 724.357 will be complied with;

i) A description of how hazardous waste residues and contaminated materials will be removed from the waste pile at closure, as required under 35 Ill. Adm. Code 724.358(a). For any waste not to be removed from the waste pile upon closure, the owner or operator must submit detailed plans and an engineering report describing how 35 Ill. Adm. Code 724.410(a) and (b) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under Section 703.183(m).

j) A waste management plan for hazardous waste numbers F020, F021, F022, F023, F026 and F027 describing how a waste pile that is not enclosed (as defined in Section 724.350(c)) is or will be designed, constructed, operated and maintained to meet the requirements of 35 Ill. Adm. Code 724.359. This submission must address the following items as specified in that Section:

1) The volume, physical and chemical characterstics of the wastes to be disposed in the waste pile, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

2) The attenuative properties of underlying and surrounding soils or other materials;

3) The mobilizing properties of other materials co-disposed with these wastes; and

4) The effectiveness of additional treatment, design or monitoring techniques.

(Board Note: See 40 CFR 270.18.)

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

Section 703.206 Land Treatment

For facilities that use land treatment to dispose of hazardous waste, except as otherwise provided in 35 Ill. Adm. code 724.101, the Part B application must include:

a) A description of plans to conduct treatment demonstration as required under 35 Ill. Adm. Code 724.372. The description must include the following information:

1) The wastes for which the demonstration will be made and the potential hazardous constituents in the wastes;

2) The data sources to be used to make the demonstration (e.g., literature, laboratory data, field data or operating data);

3) Any specific laboratory or field test that will be conducted, including:

A) the type of test (e.g., column leaching, degradation);

B) materials and methods, including analytical procedures;

C) expected time for completion;

D) characteristics of the unit that will be simulated in the demonstration, including treatment zone characteristics, climatic conditions and operating practices;

b) A description of a land treatment program, as required under 35 Ill. Adm. Code 724.371. This information must be submitted with the plans for the treatment demonstration, and updated following the treatment demonstration. The land treatment program must address the following items:

1) The wastes to be land treated;

2) Design measures and operating practices necessary to maximize treatment in accordance with 35 Ill. Adm. Code 724.373(a) including:

A) Waste application method and rate;

B) Measures to control soil pH;

C) Enhancement of microbial or chemical reactions;

D) Control of moisture content;

3) Provisions for unsaturated zone monitoring, including:

A) Sampling equipment, procedures and frequency;

B) Procedures for selecting sampling locations;

C) Analytical procedures;

D) Chain of custody control;

E) Procedures for establishing background values;

F) Statistical methods for interpreting results;

G) The justification for any hazardous constituents recommended for selection as principal hazardous constituents, in accordance with the criteria for such selection in 35 Ill. Adm. Code 724.378(a);

4) A list of hazardous constituents reasonably expected to be in, or derived from, the wastes to be land treated based on waste analysis performed pursuant to 35 Ill. Adm. Code 724.113;

5) The proposed dimensions of the treatment zone;

c) A description of how the unit is or will be designed, constructed, operated and maintained in order to meet the requirements of 35 Ill. Adm. Code 724.373. This submission must address the following items:

1) Control of run-on;

2) Collection and control of run-off;

3) Minimization of run-off of hazardous constituents from the treatment zone;

4) Management of collection and holding facilities associated with run-on and run-off control systems;

5) Periodic inspection of the unit. This information should be included in the inspection plan submitted under Section 703.183(e);

6) Control of wind dispersal of particulate matter, if applicable;

d) If food-chain crops are to be grown in or on the treatment zone of the land treatment unit, a description of how the demonstration required under 35 Ill. Adm. Code 724.376(a) will be conducted including:

1) Characteristics of the food-chain crop for which the demonstration will be made;

2) Characteristics of the waste, treatment zone and waste application method and rate to be used in the demonstration;

3) Procedures for crop growth, sample collection, sample analysis and data evaluation;

4) Characteristics of the comparison crop including the location and conditions under which it was or will be grown;

e) If food-chain crops are to be grown, and cadmium is present in the land-treated waste, a description of how the requirements of 35 Ill. Adm. Code 724.376(b) will be complied with;

f) A description of the vegetative cover to be applied to closed portions of the facility, and a plan for maintaining such cover during the post-closure care period, as required under 35 Ill. Adm. Code 724.380(a)(8) and (c)(2). This information should be included in the closure plan and, where applicable, the post-closure care plan submitted under Section 703.183(m);

g) If ignitable or reactive wastes will be placed in or on the treatment zone, an explanation of how the requirements of 35 Ill. Adm. Code 724.381 will be complied with;

h) If incompatible wastes, or incompatible wastes and materials, will be placed in or on the same treatment zone, an explanation of how 35 Ill. Adm. Code 724.382 will be complied with.

i) A waste management plan for hazardous waste numbers F020, F021, F022, F023, F026 and F027 describing how a land treatment facility is or will be designed, constructed, operated and maintained to meet the requirements of 35 Ill. Adm. Code 724.383. This submission must address the following items as specified in that Section:

1) The volume, physical and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

2) The attentuative properties of underlying and surrounding soils or other materials;

3) The mobilizing properties of other materials co-disposed with these wastes; and

4 The effectiveness of additional treatment, design or monitoring techniques.

(Board Note: See 40 CFR 270.20~~122.25(b)(6)~~.)

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

Section 703.207 Landfills

For facilities that dispose of hazardous waste in landfills, except as otherwise provided in 35 Ill. Adm. Code 724.101, the Part B application must include:

a) A list of the hazardous wastes placed or to be placed in each landfill or landfill cell;

b) Detailed plans and an engineering report describing how the landfill is or will be designed, constructed, operated and maintained to comply with the requirements of 35 Ill. Adm. Code 724.401. This submission must address the following items as specified in that Section:

1) The liner system and leachate collection and removal system (except for an existing portion of a landfill). If an exemption from the requirements for a liner and a leachate collection and removal system is sought as provided by 35 Ill. Adm. Code 724.401(b), submit detailed plans engineering and hydrogeologic reports as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituent into the groundwater or surface water at any future time;

2) Control of run-on;

3) Control of run-off;

4) Management of collection and holding facilities associated with run-on and run-off control systems; and

5) Control of wind dispersal of particulate matter, where applicable;

c) If an exemption from 35 Ill. Adm. Code 724.Subpart F is sought, as provided by 35 Ill. Adm. Code 724.402(a), the owner or operator must submit detailed plans and an engineering report explaining the location of the saturated zone in relation to the landfill, the design of a double-liner system that incorporates a leak detection system between the liners and a leachate collection and removal system above the liners;

d) A description of how each landfill, including the liner and cover systems, will be inspected in order to meet the requirements of 35 Ill. Adm. Code 724.403(a) and (b). This information should be included in the inspection plan submitted under Section 703.183(e);

e) Detailed plans and an engineering report describing the final cover which will be applied to each landfill or landfill cell at closure in accordance with 35 Ill. Adm Code 724.410(a), and a description of how each landfill will be maintained and monitored after closure in accordance with 35 Ill. Adm. Code 724.410(b). This information should be included in the closure and post-closure plans submitted under Section 703.183(m);

f) If ignitable or reactive wastes will be landfilled, an explanation of how the requirements of 35 Ill. Adm. Code 724.412 will be complied with;

g) If incompatible wastes, or incompatible wastes and materials, will be landfilled, an explanation of how 35 Ill. Adm. Code 724.413 will be complied with;

h) If bulk or non-containerized liquid waste or waste containing free liquids is to be landfilled, an explanation of how the requirements of 35 Ill. Adm. Code 724.414 will be complied with;

i) If containers of hazardous waste are to be landfilled, an explanation of how the requirements of 35 Ill. Adm. Code 724.415 or 724.416, as applicable, will be complied with.

j) A waste management plan for hazardous waste numbers F020, F021, F022, F023, F026 and F027 describing how a landfill is or will be designed, constructed, operated and maintained to meet the requirements of 35 Ill. Adm. Code 724.417. This submission must address the following items as specified in that Section:

1) The volume, physical and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

2) The attenuative properties of underlying and surrounding soils or other materials;

3) The mobilizing properties of other materials co-disposed with these wastes; and

4) The effectiveness of additional treatment, design or monitoring techniques.

(Board Note: See 40 CFR 270.21 ~~122.25(b)(7)~~.)

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

POLLUTION CONTROL BOARD

TEXT OF ADOPTED AMENDMENTS

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: DEFINITITONS

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. 1983, ch. 111 1/2, pars. 1022.4 and 1027).

POLLUTION CONTROL BOARD

TEXT OF ADOPTED AMENDMENTS

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, at 9 Ill. Reg. 11819, effective July 24, 1985; amended in R85-22 at Ill. Reg. , effective

SUBPART B: DEFINITIONS

Section 720.110 Definitions

When used in 35 Ill. Adm. Code 720 through 725 only, the following terms have the meanings given below:

"Act" or "RCRA" means the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. Section 6901 et seq.)

"Active portion" means that portion of a facility where treatment, storage or disposal operations are being or have been conducted after May 19, 1980 and which is not a closed portion. (See also "closed portion" and "inactive portion".)

"Administrator" means the Administrator of the U.S. Environmental Protection Agency or his designee.

"Agency" means the Illinois Environmental Protection Agency.

"Aquifer" means a geologic formation, group of formations or part of a formation capable of yielding a significant amount of groundwater to wells or springs.

"Authorized representative" means the person responsible for the overall operation of a facility or an operational unit (i.e., part of a facility), e.g., the plant manager, superintendent or person of equivalent responsibility.

"Board" means the Illinois Pollution Control Board.

"Boiler" means an enclosed device using controlled flame combustion and having the following characterstics:

The unit must have physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids or heated gases; and

The unit's combustion chamber and primary energy recovery section(s) must be of integral design. To be of integral design, the combustion chamber and the primary energy recovery section(s) (such as waterwalls and superheaters) must be physically formed into one manufactured or assembled unit. A unit in which the combustion chamber and the primary energy recovery section(s) are joined only by ducts or connections carrying flue gas is not integrally designed; however, secondary energy recovery equipment (such as economizers or air preheaters) need not be physically formed into the same unit as the combustion chamber and the primary energy recovery section. The following units are not precluded from being boilers solely because they are not of integral design: process heaters (units that transfer energy directly to a process stream), and fluidized bed combustion units; and

While in operation, the unit must maintain a thermal energy recovery efficiency of at least 60 percent, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

The unit must export and utilize at least 75 percent of the recovered energy, calculated on an annual basis. In this calculation, no credit shall be given for recovered heat used internally in the same unit. (Examples of internal use are the preheating of fuel or combustion air, and the driving of induced or forced draft fans or feedwater pumps); or

The unit is one which the Board has determined, on a case-by-case basis, to be a boiler, after considerng the standards in Section 720.132.

"Certification" means a statement of professional opinion based upon knowledge and belief.

"Closed Portion" means that portion of a facility which an owner or operator has closed in accordance with the approved facility closure plan and all applicable closure requirements. (See also "active portion" and "inactive portion".)

"Confined aquifer" means an aquifer bounded above and below by impermeable beds or by beds of distinctly lower permeability than that of the aquifer itself; an aquifer containing confined groundwater.

"Container" means any portable device in which a material is stored, transported, treated, disposed of or otherwise handled.

"Contingency plan" means a document setting out an organized, planned and coordinated course of action to be followed in case of a fire, explosion or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

"Designated facility" means a hazardous waste treatment, storage or disposal facility which has received an EPA permit (or a facility with interim status) in accordance with the requirements of 40 CFR 270 and 124 or a permit from a state authorized in accordance with 40 CFR 271, or that is regulated under 40 CFR 261.6(c)(2) or 40 CFR 266.Subpart F or 35 Ill. Adm. Code 721.106(c)(2) or 726.Subpart F and that has been designated on the manifest by the generator pursuant to 35 Ill. Adm. Code 722.120.

"Dike" means an embankment or ridge of either natural or manmade materials used to prevent the movement of liquids, sludges, solids or other materials.

"Director" means the Director of the Illinois Environmental Protection Agency.

"Discharge" or "hazardous waste discharge" means the accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying or dumping of hazardous waste into or on any land or water.

"Disposal" means the discharge, deposit, injection, dumping, spilling, leaking or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including groundwaters.

"Disposal facility" means a facility or part of a facility at which hazardous waste is intentionally placed into or on any land or water and at which waste will remain after closure.

"Elementary neutralization unit" means a device which:

Is used for neutralizing wastes which are hazardous wastes only because they exhibit the corrosivity

characteristic defined in 35 Ill. Adm. Code 721.122 or are listed in 35 Ill. Adm. Code 721.Subpart D only for this reason; and

Meets the definition of tank, container, transport vehicle or vessel in Section 720.110.

"EPA" means United States Environmental Protection Agency.

"EPA hazardous waste number" means the number assigned by EPA to each hazardous waste listed in 35 Ill. Adm. Code 721.Subpart D and to each characteristic identified in 35 Ill. Adm. Code 721.Subpart C.

"EPA identification number" means the number assigned by USEPA pursuant to 35 Ill. Adm. Code 722 through 725 to each generator, transporter and treatment, storage or disposal facility.

"EPA region" means the states and territories found in any one of the following ten regions:

Region I:	Maine, Vermont, New Hampshire, Massachusetts, Connecticut and Rhode Island
Region II:	New York, New Jersey, Commonwealth of Puerto Rico and the U.S. Virgin Islands
Region III:	Pennsylvania, Delaware, Maryland, West Virginia, Virginia and the District of Columbia
Region IV:	Kentucky, Tennessee, North Carolina, Mississippi, Alabama, Georgia, South Carolina and Florida
Region V:	Minnesota, Wisconsin, Illinois, Michigan, Indiana and Ohio
Region VI:	New Mexico, Oklahoma, Arkansas, Louisiana and Texas
Region VII:	Nebraska, Kansas, Missouri and Iowa
Region VIII:	Montana, Wyoming, North Dakota, South Dakota, Utah and Colorado

Region IX:	California, Nevada, Arizona, Hawaii, Guam, American Samoa and Commonwealth of the Northern Mariana Islands
Region X:	Washington, Oregon, Idaho and Alaska

"Equivalent method" means any testing or analytical method approved by the Board pursuant to Section 720.120.

"Existing hazardous waste management (HWM) facility" or "existing facility" means a facility which was in operation or for which construction commenced on or before November 19, 1980. A facility had commenced construction if:

The owner or operator had obtained the federal, state and local approvals or permits necessary to begin physical construction and either

A continuous on-site, physical construction program had begun or

the owner or operator had entered into contractual obligations--which could not be cancelled or modified without substantial loss--for physical construction of the facility to be completed within a reasonable time.

"Existing portion" means that land surface area of an existing waste management unit, included in the original Part A permit application, on which wastes have been placed prior to the issuance of a permit.

"Facility" means all contiguous land and structures, other appurtenances and improvements on the land used for treating, storing or disposing of hazardous waste. A facility may consist of several treatment, storage or disposal operational units (e.g., one or more landfills, surface impoundments or combinations of them).

"Federal agency" means any department, agency or other instrumentality of the federal government, any independent agency or establishment of the federal government including any government corporation and the Government Printing Office.

"Federal, state and local approvals or permits necessary to begin physical construction" means permits and approvals required under federal, state or local hazardous waste control statutes, regulations or ordinances.

"Food-chain crops" means tobacco, crops grown for human consumption and crops grown for feed for animals whose products are consumed by humans.

"Freeboard" means the vertical distance between the top of a tank or surface impoundment dike and the surface of the waste contained therein.

"Free liquids" means liquids which readily separate from the solid portion of a waste under ambient temperature and pressure.

"Generator" means any person, by site, whose act or process produce hazardous waste identified or listed in 35 Ill. Adm. Code 721 or whose act first causes a hazardous waste to become subject to regulation.

"Groundwater" means water below the land surface in a zone of saturation.

"Hazardous waste" means a hazardous waste as defined in 35 Ill. Adm. Code 721.103.

"Hazardous waste constituent" means a constituent which caused the hazardous waste to be listed in 35 Ill. Adm. Code 721.Subpart D, or a constituent listed in of 35 Ill. Adm. Code 721.124.

"Inactive portion" means that portion of a facility which is not operated after November 19, 1980. (See also "active portion" and "closed portion".)

"Incinerator" means an any enclosed device using controlled flame combustion, which is neither a "boiler" nor an "industrial furnace". ~~the primary purpose of which is to thermally break down purpose of which is to thermally break down hazardous waste. Examples of incinerators are rotary kiln, fluidized bed and liquid injection incinerators.~~

"Incompatible waste" means a hazardous waste which is unsuitable for:

Placement in a particular device or facility because it may cause corrosion or decay of containment materials (e.g., container inner liners or tank walls); or

Commingling with another waste or material under uncontrolled conditions because the commingling might produce heat or pressure, fire or explosion, violent reaction, toxic dusts, mists, fumes or gases or flammable fumes or gases.

(See 35 Ill. Adm. Code 725, Appendix E for examples.)

"Industrial furnace" means any of the following enclosed devices that are integral components of manufacturing processes and that use controlled flame devices to accomplish recovery of materials or energy:

Cement kilns

Lime kilns

Aggregate kilns

Phosphate kilns

Coke ovens

Blast furnaces

Smelting, melting and refining furnaces (including pyrometallurgical devices such as cupolas, reverberator furnaces, sintering machines, roasters and foundry furnaces)

Titanium dioxide chloride process oxidation reactors

Methane reforming furnaces

Pulping liquor recovery furnaces

Combustion devices used in the recovery of sulfur values from spent sulfuric acid

Any other such device as the Agency determines to be an "Industrial Furnace" on the basis of one or more of the following factors:

The design and use of the device primarily to accomplish recovery of material products;

The use of the device to burn or reduce raw materials to make a material product;

The use of the device to burn or reduce secondary materials as effective substitutes for raw materials, in processes using raw materials as principal feedstocks;

The use of the device to burn or reduce secondary materials as ingredients in an industrial process to make a material product;

The use of the device in common industrial practice to produce a material product; and

Other relevant factors.

"Individual generation site" means the contiguous site at or on which one or more hazardous wastes are generated. An individual generation site, such as a large manufacturing plant, may have one or more sources of hazardous waste but is considered a single or individual generation site if the site or property is contiguous.

"In operation" refers to a facility which is treating, storing or disposing of hazardous waste.

"Injection well" means a well into which fluids are being injected. (See also "underground injection".)

"Inner liner" means a continuous layer of material placed inside a tank or container which protects the construction materials of the tank or container from the contained waste or reagents used to treat the waste.

"International shipment" means the transportation of hazardous waste into or out of the jurisdiction of the United States.

"Land treatment facility" means a facility or part of a facility at which hazardous waste is applied onto or incorporated into the soil surface; such facilities are disposal facilities if the waste will remain after closure.

"Landfill" means a disposal facility or part of a facility where hazardous waste is placed in or on land and which is not a land treatment facility, a surface impoundment or an injection well.

"Landfill cell" means a discrete volume of a hazardous waste landfill which uses a liner to provide isolation of wastes from adjacent cells or wastes. Examples of landfill cells are trenches and pits.

"Leachate" means any liquid, including any suspended components in the liquid, that has percolated through or drained from hazardous waste.

"Liner" means means a continuous layer of natural or manmade materials beneath or on the sides of a surface impoundment, landfill or landfill cell, which restricts the downward or lateral escape of hazardous waste, hazardous waste constituents or leachate.

"Management" or "hazardous waste management" means the systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery and disposal of hazardous waste.

"Manifest" means the shipping document originated and signed by the generator which contains the information required by 35 Ill. Adm. Code 722.Subpart B.

"Manifest document number" means the USEPA twelve digit identification number assigned to the generator plus a unique five digit document number assigned to the manifest by the generator for recording and reporting purposes.

"Mining overburden returned to the mine site" means any material overlying an economic mineral deposit which is removed to gain access to that deposit and is then used for reclamation of a surface mine.

"Movement" means that hazardous waste transported to a facility in an individual vehicle.

"New hazardous waste management facility" or "new facility" means a facility which began operation, or for which construction commenced, after November 19, 1980. (See also "Existing hazardous waste management facility".)

"On-site" means the same or geographically contiguous property which may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a crossroads intersection and access is by crossing as opposed to going along the right-of-way. Noncontiguous properties owned by the same person but connected by a right-of-way which he controls and to which the public does not have access is also considered on-site property.

"Open burning" means the combustion of any material without the following characteristics:

Control of combustion air to maintain adequate temperature for efficient combustion;

Containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion; and

Control of emission of the gaseous combustion products.

(See also "incineration" and "thermal treatment".)

"Operator" means the person responsible for the overall operation of a facility.

"Owner" means the person who owns a facility or part of a facility.

"Partial closure" means the closure of a discrete part of a facility in accordance with the applicable closure requirements of 35 Ill. Adm. Code 724 or 725. For example, partial closure may include the closure of a trench, a unit operation, a landfill cell or a pit, while other parts of the same facility continue in operation or will be placed in operation in the future.

"Person" means means an individual, trust, firm, joint stock company, federal agency, corporation (including a government corporation), partnership, association, state, municipality, commission, political subdivision of a state or any interstate body.

"Personnel" or "facility personnel" means all persons who work at or oversee the operations of a hazardous waste facility and whose actions or failure to act may result in noncompliance with the requirements of 35 Ill. Adm. Code 724 or 725.

"Pile" means any noncontainerized accumulation of solid, non-flowing hazardous waste that is used for treatment or storage.

"Point source" means any discernible, confined and discrete conveyance including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture.

"Publicly owned treatment works" or "POTW" means any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a "state" or "municipality" (as defined by Section 502(4) of the Clean Water Act (33 U.S.C. 1362(4)).

This definition includes sewers, pipes or other conveyances only if they convey wastewater to a POTW providing treatment.

"Regional Administrator" means the Regional Administrator for the EPA Region in which the facility is located or his designee.

"Representative sample" means a sample of a universe or whole (e.g., waste pile, lagoon, groundwater) which can be expected to exhibit the average properties of the universe or whole.

"Runoff" means any rainwater, leachate or other liquid that drains over land from any part of a facility.

"Runon" means any rainwater, leachate or other liquid that drains over land onto any part of a facility.

"Saturated zone" or "zone of saturation" means that part of the earth's crust in which all voids are filled with water.

"SIC Code" means Standard Industrial Code as defined in Standard Industrial Classification Manual, incorporated by reference in Section 720.111.

"Sludge" means any solid, semi-solid or liquid waste generated from a municipal, commercial or industrial wastewater treatment plant, water supply treatment plant or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant.

"Solid waste" means a solid waste as defined in 35 Ill. Adm. Code 721.102.

"State" means any of the several states, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa and the Commonwealth of the Northern Mariana Islands.

"Storage" means the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of or stored elsewhere.

"Surface impoundment" or "impoundment" means a facility or part of a facility which is a natural topographic depression, manmade excavation or diked area formed primarily of earthen materials (although it may be lined with manmade materials) which is designed to hold an accumulation of liquid wastes or wastes containing free liquids and which is not an injection well. Examples of surface impoundments are holding, storage, settling and aeration pits, ponds and lagoons.

"Tank" means a stationary device, designed to contain an accumulation of hazardous waste which is constructed primarily of nonearthen materials (e.g., wood, concrete, steel, plastic) which provide structural support.

"Thermal treatment" means the treatment of hazardous waste in a device which uses elevated temperatures as the primary means to change the chemical, physical or biological character or composition of the hazardous waste. Examples of thermal treatment processes are incineration, molten salt, pyrolysis, calcination, wet air oxidation and microwave discharge. (See also "incinerator" and "open burning".)

"Totally enclosed treatment facility" means a facility for the treatment of hazardous waste which is directly connected to an industrial production process and which is constructed

and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. An example is a pipe in which waste acid is neutralized.

"Transfer facility" means any transportation related facility including loading docks, parking areas, storage areas and other similar areas where shipments of hazardous waste are held during the normal course of transportation.

"Transport vehicle" means a motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body (trailer, railroad freight car, etc.) is a separate transport vehicle.

~~"Vessel" includes every description of watercraft, used or capable of being used as a means of transportation on the water.~~

"Transportation" means the movement of hazardous waste by air, rail, highway or water.

"Transporter" means a person engaged in the offsite transportation of hazardous waste by air, rail, highway or water.

"Treatment" means any method, technique or process, including neutralization, designed to change the physical, chemical or biological character or composition of any hazardous waste so as to neutralize such waste, or so as to recover energy or material resources from the waste or so as to render such waste nonhazardous or less hazardous; safer to transport, store or dispose of; or amenable for recovery, amenable for storage or reduced in volume.

"Treatment zone" means a soil area of the unsaturated zone of a land treatment unit within which hazardous constituents are degraded, transformed or immobilized.

"Underground injection" means the subsurface emplacement of fluids through a bored, drilled or driven well; or through a dug well, where the depth of the dug well is greater than the largest surface dimension. (See also "injection well".)

"Uppermost aquifer" means the geologic formation nearest the natural ground surface that is an aquifer, as well as lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary.

"Unsaturated zone" or "zone of aeration" means the zone between the land surface and the water table.

"United States" means the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa and the Commonwealth of the Northern Mariana Islands.

"Vessel" includes every description of watercraft, used or capable of being used as a means of transportation on the water.

"Wastewater treatment unit" means a device which:

Is part of a wastewater treatment facility which is subject to regulation under either Section 402 or Section 307(b) of the Clean Water Act (33 U.S.C. 1342 or 1317(b)); and receives and treats or stores an influent wastewater which is a hazardous waste as defined in 35 Ill. Adm. Code 721.103 or generates and accumulates a wastewater treatment sludge which is a hazardous waste as defined in 35 Ill. Adm. Code 721.103 or treats or stores a wastewater treatment sludge which is a hazardous waste as defined in 35 Ill. Adm. Code 721.103; and

Meets the definition of tank in 35 Ill. Adm. Code 720.110.

"Water (bulk shipment)" means the bulk transportation of hazardous waste which is loaded or carried on board a vessel without containers or labels.

"Well" means any shaft or pit dug or bored into the earth, generally of a cylindrical form, and often walled with bricks or tubing to prevent the earth from caving in.

"Well injection" (See "underground injection").

(Source: Amended at Ill. Reg. effective

Section 720.111 References

a) When used in 35 Ill. Adm. Code 720 through 725, the following publications are incorporated by reference:

"ASTM Standard Test Methods for Flash Point of Liquids by Setaflash Closed Tester," ASTM Standard D-3278-78, available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

"ASTM Standard Test Methods for Flash Point Pensky-Martens Closed Tester," ASTM Standard D-93-79 or D-93-80. D-93-80 is available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

"Flammable and Combustible Liquids Code" (1977 or 1981), available from the National Fire Protection Association, 470 Atlantic Avenue Boston, MA 02210.

Standard Industrial Classification Manual (1972), and 1977 Supplement, republished in 1983, available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20401.

"Test Methods for Evaluating ~~the Evaluation of~~ Solid Waste, ~~Physcial/Chemical Methods" (1980), EPA publication number SW-846 (First Edition, 1980, as updated by Revisions A (August, 1980), B (July, 1981), and C (February, 1982)) or~~ (Second Edition, 1982 as amended by Update I (April, 1984) and Update II (April, 1985)). ~~The first edition of SW-846 is no longer in print. Revisions A and B are available from EPA, Office of Solid Waste, (WH-565B), 401 M Street, S.W., Washington, D.C. 20460. Revision C is available from NTIS, 5285 Port Royal Road, Springfield, Virginia 22161.~~ The second edition of SW-846 and updates I and II ~~are includes material from the first edition and Revisions A, B, and C in a reorganized format.~~ It is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20401 ~~20402~~, (202) 783-3238 on a subscription basis.

b) The references listed in paragraph (a) are also available for inspection at the Office of the Federal Register, 1100 L Street, NW, Washington, D.C. 20408 and at the Illinois State Library, Centennial Building, Springfield, IL 62756.

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

SUBPART C: RULEMAKING PETITIONS AND OTHER PROCEDURES

Section 720.130 Procedures for Solid Waste Determinations

In accordance with the standards and criteria in Section 720.131 and the procedures in Section 720.133, the Board will determine on a case-by-case basis that the following recycled materials are not solid wastes:

a) Materials that are accumulated speculatively without sufficient amounts being recycled (as defined in Section 721.101(c)(8));

b) Materials that are reclaimed and then reused within the original primary production process in which they were generated;

c) Materials that have been reclaimed but must be reclaimed further before the materials are completely recovered.

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

Section 720.131 Solid Waste Determinations

a) The Board will determine that those materials that are accumulated speculatively without sufficient amounts being recycled are not solid wastes if the applicant demonstrates that sufficient amounts of the material will be recycled or transferred for recycling in the following year. Such a determination is valid only for the following year, but can be renewed, on an annual basis, by filing a new application. This determination will be based on the following criteria:

1) The manner in which the material is expected to be recycled, when the material is expected to be recycled, and whether this expected disposition is likely to occur (for example, because of past practice, market factors, the nature of the material or contractual arrangements for recycling);

2) The reason that the applicant has accumulated the material for one or more years without recycling 75 percent of the volume accumulated at the beginning of the year;

3) The quantity of material already accumulated and the quantity expected to be generated and accumulated before the material is recycled;

4) The extent to which the material is handled to minimize loss;

5) Other relevant factors.

b) The Board will determine that those materials that are reclaimed and then reused as feedstock within the original primary production process in which the materials were generated are not solid wastes if the reclamation operation is an essential part of the production process. This determination will be based on the following criteria:

1) How economically viable the production process would be if it were to use virgin materials, rather than reclaimed materials;

2) The prevalence of the practice on an industry-wide basis;

3) The extent to which the material is handled before reclamation to minimize loss;

4) The time periods between generating the material and its reclamation, and between reclamation and return to the original primary production process;

5) The location of the reclamation operation in relation to the production process;

6) Whether the reclaimed material is used for the purpose for which it was originally produced when it is returned to the original process, and whether it is returned to the process in substantially its original form;

7) Whether the person who generates the material also reclaims it;

8) Other relevant factors.

c) The Board will determine that those materials that have been reclaimed but must be reclaimed further before

recovery is completed are not solid wastes if, after initial reclamation, the resulting material is commodity-like (even though it is not yet a commercial product, and has to be reclaimed further). This determination will be based on the following criteria:

1) The degree of processing the material has undergone and the degree of further processing that is required;

2) The value of the material after it has been reclaimed;

3) The degree to which the reclaimed material is like an analogous raw material;

4) The extent to which an end market for the reclaimed material is guaranteed;

5) The extent to which the reclaimed material is handled to minimize loss;

6) Other relevant factors.

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

Section 720.132 Boiler Determinations

In accordance with the standards and criteria in Section 720.110 (definition of "boiler"), and the procedures in 720.133, the Board will determine on a case-by-case basis that certain enclosed devices using controlled flame combustion are boilers, even though they do not otherwise meet the definition of boiler contained in Section 720.110, after considering the following criteria:

a) The extent to which the unit has provisions for recovering and exporting thermal energy in the form of steam, heated fluids or heated gases; and

b) The extent to which the combustion chamber and energy recovery equipment are of integral design; and

c) The efficiency of energy recovery, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

d) The extent to which exported energy is utilized; and

e) The extent to which the device is in common and customary use as a "boiler" functioning primarily to produce steam, heated fluids or heated gases; and

f) Other relevant factors.

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

Section 720.133 Procedures for Determinations

The Board will use the procedures of 35 Ill. Adm. Code 106 for determining whether a material is a solid waste or for determining whether a particular enclosed flame combustion device is a boiler.

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

Section 720.140 Additional regulation of certain hazardous waste Recycling Activities on a case-by-case Basis

a) The Agency may decide on a case-by-case basis that persons accumulating or storing the recyclable materials described in 35 Ill. Adm. Code 721.106(a)(2)(D) should be regulated under 35 Ill. Adm. Code 721.106(b) and (c) rather than under the provisions of 35 Ill. Adm. Code 726.Subpart F. The basis for this decision is that the materials are being accumulated or stored in a manner that does not protect human health and the environment because the materials or their toxic constituents have not been adequately contained, or because the materials being accumulated or stored together are incompatible. In making this decision, the Agency shall consider the following factors:

1) The types of materials accumulated or stored and the amounts accumulated or stored;

2) The method of accumulation or storage;

3) The length of time the materials have been accumulated or stored before being reclaimed;

4) Whether any contaminants are being released into the environment, or are likely to be so released; and

5) Other relevant factors.

b) The procedures for this decision are set forth in Section 720.141.

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

Section 720.141 Procedures for case-by-case regulation of hazardous waste Recycling Activities

The Agency shall use the following procedures when determining whether to regulate hazardous waste recycling activities described in 35 Ill. Adm. Code 721.106(a)(2)(D) under the provisions of 35 Ill Adm. Code 721.106(b) and (c) rather than under the provisions of 35 Ill. Adm. Code 726.Subpart F.

a) If a generator is accumulating the waste, the Agency shall issue a notice setting forth the factual basis for the decision and stating that the person shall comply with the applicable requirements of 35 Ill. Adm. Code 722.Subparts A, C, D and E. The notice will become final within 30 days, unless the person served requests a public hearing to challenge the decision. Upon receiving such a request, the Agency shall hold a public hearing. The Agency shall provide notice of the hearing to the public and allow public participation at the hearing. The Agency shall issue a final written memorandum of decision after the hearing stating whether or not compliance with 35 Ill. Adm. Code 722 is required, and setting forth the reasons for the Agency's decision, including all findings of fact and conclusions of law. Such memorandum of decision shall constitute a final administrative action, and may be appealed to the Board. The decision becomes effective 35 days after service of the decision unless the Agency specifies a later date or unless an appeal has been filed with the Board. The decision may be appealed to the Board by any person who participated in the hearing. Proceedings before the Board shall be in general accordance with the rules set forth in 35 Ill. Adm. Code 105.

b) If the person is accumulating the recyclable material as a storage facility, the notice must state that the person shall obtain a permit in accordance with all applicable provisions of 35 Ill. Adm. Code 702, 703 and 705. The owner or operator of the facility shall apply for a permit within no less than 60 days and no more

than six months of notice, as specified in the notice. If the owner or operator of the facility wishes to challenge the Agency's decision, it may do so in its permit application, in a public hearing held on the draft permit, or in comments filed on the draft permit or on the notice of intent to deny the permit. The fact sheet accompanying the permit will specify the reasons for the Agency's determination. The question of whether the Agency's decision was proper will remain open for consideration during the public comment period discussed under 35 Ill. Adm. Code 705.Subparts D and E, and in any subsequent hearing.

(Source: Added at 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

POLLUTION CONTROL BOARD

TEXT OF ADOPTED AMENDMENTS

SUBPART D: LISTS OF HAZARDOUS WASTE

AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1983, 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, at 7 Ill. Reg. 13999, effective October 12, 1983; amended in R84-34, 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 Ill. Reg. effective

POLLUTION CONTROL BOARD

TEXT OF ADOPTED AMENDMENTS

SUBPART A: GENERAL PROVISIONS

Section 721.101 Purpose and Scope

a) This part identifies those solid wastes which are subject to regulation as hazardous wastes under 35 Ill. Adm. Code 702, 703, 705 and 722 through 725 and which are subject to the notification requirements of Section 3010 of the Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.). In this part:

1) Subpart A defines the terms "solid waste" and "hazardous waste," identifies those wastes which are excluded from regulation under 35 Ill. Adm. Code 702, 703, 705 and 722 through 725 and establishes special management requirements for hazardous waste produced by small quantity generators and hazardous waste which is used, reused, recycled or reclaimed.

2) Subpart B sets forth the criteria used to identify characteristics of hazardous waste and to list particular hazardous wastes.

3) Subpart C identifies characteristics of hazardous wastes.

4) Subpart D lists particular hazardous wastes.

b) 1) The definition of solid waste contained in this Part applies only to wastes that also are hazardous for purposes of the regulations implementing Subtitle C of the Resource Conservation and Recovery Act. For example, it does not apply to materials (such as non-hazardous scrap, paper, textiles, or rubber) that are not otherwise hazardous wastes and that are recycled.

2) This Part identifes only some of the materials which are solid wastes and hazardous wastes under Sections 1004(5), 1004(27) and 7003 of RCRA. A material which is not defined as a solid waste in this Part, or is not a hazardous waste identified or listed in this Part is still a hazardous waste for purposes of those Sections if, in the case of Section 7003 of RCRA, the statutory elements are established.

c) For the purposes of Sections 721.102 and 721.106:

1) A "spent material" is any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing;

2) "Sludge" has the same meaning used in 35 Ill. Adm. Code 720.110;

3) A "by-product" is a material that is not one of the primary products of a production process and is not solely or separately produced by the production process. Examples are process residues such as slags or distillation column bottoms. The term does not include a co-product that is produced for the general public's use and is ordinarily used in the form it is produced by the process.

4) A material is "reclaimed" if it is processed to recover a usable product, or if it is regenerated. Examples are recovery of lead values from spent batteries and regeneration of spent solvents.

5) A material is "used or reused" if it is either:

A) Employed as an ingredient (including use as an intermediate) in an industrial process to make a product (for example, distillation bottoms from one process used as feedstock in another process). However, a material will not satisfy this condition if distinct components of the material are recovered as separate end products (as when metals are recovered from metal-containing secondary materials); or

B) Employed in a particular function or application as an effective substitute for a commercial product (for example, spent pickle liquor used as phosphorus precipitant and sludge conditioner in wastewater treatment).

6) "Scrap metal" is bits and pieces of metal parts (e.g., bars, turnings, rods, sheets, wire) or metal pieces that may be combined together with bolts or soldering (e.g., radiators, scrap automobiles,

railroad box cars) which when worn or superfluous can be recycled.

7) A material is "recycled" if it is used, reused or reclaimed.

8) A material is "accumulated speculatively" if it is accumulated before being recycled. A material is not accumulated speculatively, however, if the person accumulating it can show that the material is potentially recyclable and has a feasible means of being recycled; and that -- during the calendar year (commencing on January 1) -- the amount of material that is recycled, or transferred to a different site for recycling, equals at least 75 percent by weight or volume of the amount of that material accumulated at the beginning of the period. In calculating the percentage of turnover, the 75 percent requirement is to be applied to each material of the same type (e.g., slags from a single smelting process) that is recycled in the same way (i.e., from which the same material is recovered or that is used in the same way). Materials accumulating in units that would be exempt from regulation under Section 721.104(c) are not to be included in making the calculation. (Materials that are already defined as solid wastes also are not to be included in making the calculation). Materials are no longer in this category once they are removed from accumulation for recycling, however.

d)e) The Agency has inspection authority pursuant to Section 3007 of the Resource Conservation and Recovery Act and Section 4 of the Environmental Protection Act.

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

Section 721.102 Definition of Solid Waste

a) 1) A solid waste is any discarded material that is not excluded by Section 721.104(a) or that is not excluded pursuant to 35 Ill. Adm. Code 720.130 and 720.131.

2) A discarded material is any material which is:

A) Abandoned, as explained in paragraph (b); or

B) Recycled, as explained in paragraph (c); or

C) Considered inherently waste-like, as explained in paragraph (d).

~~a) A solid waste is any garbage, refuse, sludge or any other waste material which is not excluded under Section 721.104(a).~~

b) Materials are solid waste if they are abandoned by being:

1) Disposed of; or

2) Burned or incinerated; or

3) Accumulated, stored or treated (but not recycled) before or in lieu of being abandoned by being disposed of, burned or incinerated.

~~b) An "other waste material" is any solid, liquid, semi-solid or contained gaseous material, resulting from industrial, commercial, mining or agricultural operations, or from community activities which:~~

~~1) Is discarded or is being accumulated, stored or physically, chemically or biologically treated prior to being discarded; or~~

~~2) Has served its original intended use and sometimes is discarded; or~~

~~3) Is a manufacturing or mining by-product and sometimes is discarded.~~

c) Materials are solid wastes if they are recycled -- or accumulated, stored or treated before recycling -- as specified in subparagraphs (c)(1) through (c)(4) if they are:

1) Used in a manner constituting disposal.

A) Materials noted with a "yes" in column 1 of table in Appendix Z are solid wastes when they are:

i) Applied to or placed on the land in a manner that constitutes disposal; or

ii) Contained in products that are applied to the land (in which case the product itself remains a solid waste).

B) However, commercial chemical products listed in Section 721.133 are not solid wastes if they are applied to the land and that is their ordinary manner of use.

2) Burned for energy recovery.

A) Materials noted with a "yes" in column 2 of table in Appendix Z are solid wastes when they are:

i) Burned to recover energy;

ii) Used to produce a fuel;

iii) Contained in fuels (in which case the fuel itself remains a solid waste).

B) However, commercial chemical products listed in Section 721.133 are not solid wastes if they are themselves fuels.

3) Reclaimed. Materials noted with a "yes" in column 3 of table in Appendix Z are solid wastes when reclaimed.

4) Accumulated speculatively. Materials noted with "yes" in column 4 of table in Appendix Z are solid wastes when accumulated speculatively.

~~c) A material is "discarded" if it is abandoned (and not used, re-used, reclaimed or recycled) by being:~~

~~1) Disposed of; or~~

~~2) Burned or incinerated, except where the material is being burned as a fuel for the purpose of recovering usable energy; or~~

~~3) Physically, chemically, or biologically treated (other than burned or incinerated) in lieu of or prior to being disposed of.~~

d) Inherently waste-like materials. The following materials are solid wastes when they are recycled in any manner:

1) Hazardous waste numbers F020, F021 (unless used as an ingredient to make a product at the site of generation), F022, F023, F026 and F028.

2) The following criteria are used to add wastes to the list:

A) i) The materials are ordinarily disposed of, burned or incinerated; or

ii) The materials contain toxic constituents listed in Appendix H and these constituents are not ordinarily found in raw materials or products for which the materials substitute (or are found in raw materials or products in smaller concentrations) and are not used or reused during the recycling process; and

B) The material may pose a substantial hazard to human health and the environment when recycled.

~~d) A material is "disposed of" if it is discharged, deposited, injected, dumped, spilled, leaked or placed into or on any land or water so that such material or any constituent thereof may enter the environment or be emitted into the air or discharged into ground or surface waters.~~

e) Materials that are not solid waste when recycled.

1) Materials are not solid wastes when they can be shown to be recycled by being:

A) Used or reused as ingredients in an industrial process to make a product, provided the materials are not being reclaimed; or

B) Used or reused as effective substitutes for commercial products; or

C) Returned to the original process from which they are generated, without first being reclaimed. The materials must be returned as a substitute for raw materials feedstock, and the process must use raw materials as principal feedstocks.

2) The following materials are solid wastes, even if the recycling involves use, reuse or return to the original process (described in subparagraphs (e)(1)(A)-(C):

A) Materials used in a manner constituting disposal, or used to produce products that are applied to the land; or

B) Materials burned for energy recovery, used to produce a fuel or contained in fuels; or

C Materials accumulated speculatively; or

D) Materials listed in subparagraph (d)(1).

~~e) A "manufacturing or mining by-product" is a material that is not one of the primary products of a particular manufacturing or mining operation, is a secondary and incidental product of the particular operation and would not be solely and separately manufactured or mined by the particular manufacturing or mining operation. The term does not include an intermediate manufacturing or mining product which results from one of the steps in a manufacturing or mining process and is typically processed through the next step of the process within a short time.~~

f) Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation. Respondents in actions to enforce regulations implementing Subtitle C of the Resource Conservation Recovery Act or Section 21 of the Environmental Protection Act who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation must demonstrate that there is a known market or disposition for the material, and that they meet the

terms of the exclusion or exemption. In doing so, they must provide appropriate documentation (such as contracts showing that a second person uses the material as an ingredient in a production process) to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials must show that they have the necessary equipment to do so.

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

Section 721.103 Definition of Hazardous Waste

a) A solid waste, as defined in Section 721.102, is a hazardous waste if:

1) It is not excluded from regulation as a hazardous waste under Section 721.104(b); and

2) It meets any of the following criteria;

A) It exhibits any of the characteristics of hazardous waste identified in Subpart C.

B) It is listed in Subpart D and has not been excluded from the lists in Subpart D under 35 Ill. Adm. Code 720.120 and 720.122.

C) It is a mixture of a solid waste and a hazardous waste that is listed in Subpart D solely because it exhibits one or more of the characteristics of hazardous waste identified in Subpart C unless the resultant mixture no longer exhibits any characteristic of hazardous waste identified in Subpart C.

D) It is a mixture of solid waste and one or more hazardous wastes listed in Subpart D and has not been excluded from this paragraph under 35 Ill. Adm. Code 720.120 and 720.122; however, the following mixtures of solid wastes and hazardous wastes listed in Subpart D are not hazardous wastes (except by application of paragraph (a)(2)(A) or (B)) if the generator can demonstrate that the mixture consists of wastewater the discharge of which is subject

to regulation under either Section 402 or Section 307(b) of the Clean Water Act (33 U.S.C. 1251) (including wastewater at facilities which have eliminated the discharge of wastewater) and;

i) One or more of the following spent solvents listed in Section 721.131 carbon tetrachloride, tetrachloroethylene, trichloroethylene - provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pre-treatment system does not exceed 1 part per million; or

ii) One or more of the following spent solvents listed in Section 721.131 - methylene chloride, 1,1,1 - trichloroethane, chlorobenzene, o-dichlorobenzene, cresols, cresylic acid, nitrobenzene, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, spent chlorofluorocarbon solvents - provided that the maximum total weekly usage of these solvents (other than the amounts that can be demonstrated not to be discharged to wastewater) divided by the average weekly flow of wastewater into the headworks of the facility's wastewater treatment or pre-treatment system does not exceed 25 parts per million; or

iii) One of the following wastes listed in Section 721.132 - heat exchanger bundle cleaning sludge from the petroleum refining industry (EPA Hazardous Waste No. K050); or

iv) A discharged commercial chemical product, or chemical intermediate

listed in Section 721.133, arising from de minimis losses of these materials from manufacturing operations in which these materials are used as raw materials or are produced in the manufacturing process. For purposes of this subparagraph, "de minimis" losses include those from normal material handling operations (e.g., spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials); minor leaks of process equipment, storage tanks or containers; leaks from well-maintained pump packings and seals; sample purgings; relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers or from containers that are rendered empty by that rinsing; or

v) Wastewater resulting from laboratory operations containing toxic (T) wastes listed in Subpart D, provided that the annualized average flow of laboratory wastewater does not exceed one percent of total wastewater flow into the headworks of the facility's wastewater treatment or pre-treatment system, or provided that the wastes combined annualized average concentration does not exceed one part per million in the headworks of the facility's wastewater treatment or pre-treatment facility. Toxic (T) wastes used in laboratories that are demonstrated not to be discharged to wastewater are not to be included in this calculation.

b) A solid waste which is not excluded from regulation under paragraph (a)(1) becomes a hazardous waste when any of the following events occur:

1) In the case of a waste listed in Subpart D, when the waste first meets the listing description set forth in Subpart D.

2) In the case of a mixture of solid waste and one or more listed hazardous wastes, when a hazardous waste listed in Subpart D is first added to the solid waste.

3) In the case of any other waste (including a waste mixture), when the waste exhibits any of the characteristics identified in Subpart C.

c) Unless and until it meets the criteria of paragraph (d):

1) A hazardous waste will remain a hazardous waste.

2) A) Except as otherwise provided in subparagraph (c)(2)(B), any solid waste generated from the treatment, storage or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust or leachate (but not including precipitation run-off), is a hazardous waste. (However, materials that are reclaimed from solid wastes and that are used beneficially are not solid wastes and hence are not hazardous wastes under this provision unless the reclaimed material is burned for energy recovery or used in a manner constituting disposal.)

B) The following solid wastes are not hazardous even though they are generated from the treatment, storage or disposal of a hazardous waste, unless they exhibit one or more of the characteristics of hazardous waste: Waste pickle liquor sludge generated by lime stabilization of spent pickle liquor from the iron and steel industry (SIC Codes 331 and 332) (Standard Industrial Codes, as defined and incorporated by reference in 35 Ill. Adm. Code 720.110 and 720.111).

d) Any solid waste described in paragraph (c) is not a hazardous waste if it meets the following criteria:

1) In the case of any solid waste, it does not exhibit any of the characteristics of hazardous waste identified in Subpart C.

2) In the case of a waste which is a listed waste under Subpart D, contains a waste listed under Subpart D or is derived from a waste listed in Subpart D, it also has been excluded from paragraph (c) under 35 Ill. Adm. Code 720.120 and 720.122.

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

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) 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 subject to regulation under Section 402 of the Clean Water Act, as amended (33 U.S.C. 1251 et seq.)

(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).

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).

2) Solid wastes generated by any of the following and which are returned to the soils 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)

A) Wastes which fail the test for the characteristic of EP toxicity (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 characteristic of EP toxicity 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 paragraphs (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.

8) Cement kiln dust waste.

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

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 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 paragraph (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 of composition, is not subject to any requirements of this Part or 35 Ill. Adm. Code 702, 703, 705 and 722 through 725. 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 paragraph (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 paragraph (d)(1).

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

Section 721.105 Special Requirements for Hazardous Waste Generated by Small Quantity Generators

a) A generator is a small quantity generator in a calendar month if he it generates less than 1000 kilograms of hazardous waste in that month. 35 Ill. Adm. Code 700 explains the relation of this to the 100 kg/mo exception of 35 Ill. Adm. Code 809.

b) Except for those wastes identified in paragraphs (e) and (f), a small quantity generator's hazardous wastes are not subject to regulation under 35 Ill. Adm. Code 702, 703, 705 and 722 through 725, and the notification requirements of Section 3010 of the Resource Conservation & Recovery Act, provided the generator complies with the requirement of paragraph (g).

c) Hazardous waste that is ~~beneficially used or re-used or legitimately~~ recycled ~~reclaimed~~ and that is excluded ~~from regulation~~ by Section 721.106(a)(2)(C) and (E),(a)(3), or 35 Ill. Adm. Code 726.136 is not included in the quantity determinations of this Section, and is not subject to any requirements of this Section. Hazardous waste that is subject to the ~~special~~ requirements of Section 721.106(b) and (c) and 35 Ill. Adm. Code 726.Subparts C, D, and F is included in the quantity determinations of this Section and is subject to the requirements of this Section.

d) In determining the quantity of hazardous waste it generates, a generator need not include:

1) Its hazardous waste when it is removed from on-site storage; or

2) Hazardous waste produced by on-site treatment of its hazardous waste.

e) If a small quantity generator generates acutely hazardous waste in a calendar month in quantities greater than set forth below, all quantities of that acutely hazardous waste are subject to regulation under

35 Ill. Adm. Code 702, 703, 705 and 722 through 725, and the notification requirements of Section 3010 of the Resource Conservation & Recovery Act:

1) A total of one kilogram of ~~hazardous wastes which are identified~~ acute hazardous wastes ~~(H)~~ listed in Sections 721.131, 721.132, or 721.133(e); or

2) A total of 100 kilograms of any residue or contaminated soil, waste or other debris resulting from the clean-up of a spill, into or on any land or water, of any ~~hazardous wastes which are identified~~ as acute hazardous wastes ~~(H)~~ listed in Sections 721.131, 721.132, or 721.133(e).

f) A small quantity generator may accumulate hazardous waste on-site. If ~~he~~ it accumulates at any time more than a total of 1000 kilograms of its ~~his~~ hazardous waste, or its ~~his~~ acutely hazardous wastes in quantities greater than set forth in paragraphs (e)(1) or (e)(2), all of those accumulated wastes for which the accumulation limit was exceeded are subject to regulation under 35 Ill. Adm. Code 702, 703, 705 and 722 through 725, and the notification requirements of Section 3010 of the Resource Conservation & Recovery Act. The time period of Section 722.134 for accumulation of wastes on-site begins for a small quantity generator when the accumulated wastes exceed the applicable exclusion level.

g) In order for hazardous waste generated by a small quantity generator to be excluded from full regulation under this Section, the generator must:

1) Comply with 35 Ill. Adm. Code 722.111;

2) If it stores its hazardous waste on-site, store it in compliance with the requirements of paragraph (f); and

3) Either treat or dispose of its hazardous waste in an on-site facility, or ensure delivery to an off-site storage, treatment or disposal facility, either of which is:

A) Permitted under 35 Ill. Adm. Code 702 and 703;

B) In interim status under 35 Ill. Adm. Code 703 and 725;

C) Authorized to manage hazardous waste by a State with a hazardous waste management program approved under 40 CFR 271;

D) Permitted, licensed or registered by a State to manage municipal or industrial solid waste; or

E) A facility which:

i) Beneficially uses or re-uses, or legitimately recycles or reclaims his waste; or

ii) Treats his waste prior to beneficial use or re-use, or legitimate recycling or reclamation.

h) Hazardous waste subject to the reduced requirements of this Section may be mixed with non-hazardous waste and remain subject to these reduced requirements even though the resultant mixture exceeds the quantity limitations identified in this Section, unless the mixture meets any of the characteristics of hazardous wastes identified in Subpart C.

i) If a small quantity generator mixes a solid waste with a hazardous waste that exceeds a quantity exclusion level of this Section, the mixture is subject to full regulation.

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

Section 721.106 Requirements for recyclable materials ~~Special Requirements for Hazardous Waste Which is Used, Re-used, Recycled or Reclaimed~~

a) 1) Hazardous wastes that are recycled are subject to the requirements for generators, transporters, and storage facilities of paragraphs (b) and (c), except for the materials listed in subparagraphs (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) (Reserved for used oil);

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, 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;

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; or

D) Scrap metal.

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 paragraph (a).

c) 1) Owners or operators of facilities that store recyclable materials are regulated under all applicble provisions of 35 Ill. Adm. Code 724 and 725.Subparts A through L, and 702, 703 and 705 and the notification requirement under Section 3010 of the Resource Conservation and Recovery Act, except as provided in paragraph (a).

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 paragraph (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)

~~a) Except as otherwise provided in paragraph (b), a hazardous waste which meets any of the following criteria is not subject to regulation under 35 Ill. Adm. Code 702, 703, 705 or 722 through 725 and is not subject to the notification requirements of Section 3010 of RCRA until such time as the Board promulgates regulations to the contrary:~~

~~1) It is being beneficially used or reused or legitimately recycled or reclaimed;~~

~~2) It is being accumulated, stored or physically, chemically or biologically treated prior to beneficial use or reuse or legitimate recycling or reclamation;~~

~~3) It is one of the following materials being used, reused, recycled or reclaimed in the specified manner: spent pickle liquor which is reused in wastewater treatment at a facility holding a National Pollutant Discharge Elimination System (NPDES) permit; or which is being accumulated, stored, or physically, chemically or biologically treated before such reuse;~~

~~b) Except for those wastes listed in paragraph (a)(3), a hazardous waste which is a sludge, or which is listed in~~

~~Sections 721.131 or 721.132, or which contains one or more hazardous wastes listed in Sections 721.131 or 721.132, and which is transported or stored prior to being used, re-used, recycled or reclaimed is subject to the following requirements with respect to such transportation or storage:~~

~~1)~~ ~~Notification requirements under Section 3010 RCRA,~~

~~2)~~ ~~35 Ill. Adm. Code 722,~~

~~3)~~ ~~35 Ill. Adm. Code 723,~~

~~4)~~ ~~35 Ill. Adm. Code 724, Subparts A through L,~~

~~5)~~ ~~35 Ill. Adm. Code 725, Subpart A through L,~~

~~6)~~ ~~35 Ill. Adm. Code 702, 703 and 705, with respect to storage facilities.~~

~~(Source:~~ Amended at Ill. Reg. , effective ~~)~~

Section 721.107 Residues of Hazardous Waste in Empty Containers

a)

1) Any hazardous waste remaining in either an empty container or an inner liner removed from an empty container, as defined in paragraph (b), is not subject to regulation under 35 Ill. Adm. Code 702, 703, 705 or 721 through 725 or to the notification requirements of Section 3010 of the Resource Conservation & Recovery Act.

2) Any hazardous waste in either a container that is not empty or an inner liner removed from a container that is not empty, as defined in paragraph (b), is subject to regulations under 35 Ill. Adm. Code 702, 703, 705 and 721 through 725 and to the notification requirements of Section 3010 of the Resource Conservation & Recovery Act.

b)

1) A container or an inner liner removed from a container that has held any hazardous waste, except

a waste that is a compressed gas or that is identified as an acute hazardous waste ~~(H)~~ listed in Sections 721.131, 721.132, or 721.133(e), is empty if:

A) All wastes have been removed that can be removed using the practices commonly employed to remove materials from that type of container, e.g., pouring, pumping, and aspirating, and

B) No more than 2.5 centimeters (one inch) of residue remain on the bottom of the container or inner liner, or

C)

i) No more than 3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is less than or equal to 110 gallons in size, or

ii) No more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner if the container is greater than 110 gallons in size.

2) A container that has held a hazardous waste that is a compressed gas is empty when the pressure in the container approaches atmospheric.

3) A container or an inner liner removed from a container that has held ~~a hazardous waste which is identified~~ as an acute hazardous waste ~~(H)~~ listed in Sections 721.131, 721.132 or 721.133(e), is empty if:

A) The container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate;

B) The container or inner liner has been cleaned by another method that has been shown in the scientific literature, or by tests conducted

by the generator, to achieve equivalent removal; or

C) In the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container, has been removed.

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

Section 721.130 General

a) A solid waste is a hazardous waste if it is listed in this Subpart, unless it has been excluded from this list under 35 Ill. Adm. Code 720.120 and 720.122.

b) The basis for listing the classes or types of wastes listed in this Subpart is indicated by employing one or more of the Hazard Codes:

1)

A)	Ignitable Waste	(I)
B)	Corrosive Waste	(C)
C)	Reactive Waste	(R)
D)	EP Toxic Waste	(E)
E)	Acute Hazardous Waste	(H)
F)	Toxic Waste	(T)

2) Appendix G identifies the constituent which caused the Administrator to list the waste as an EP Toxic Waste (E) or Toxic Waste (T) in Sections 721.131 and 721.132.

c) Each hazardous waste listed in this Subpart is assigned an EPA Hazardous Waste Number which precedes the name of the waste. This number must be used in complying with the notification requirements of Section 3010 of the Act and certain recordkeeping and reporting requirements under 35 Ill. Adm. Code 702, 703 and 722 through 725 and 40 CFR Part 122.

d) The following hazardous wastes listed in Section 721.131 or 721.132 are subject to the exclusion limits for acutely hazardous wastes established in Section 721.105: None, hazardous wastes numbers F020, F021, F022, F023, F026 and F027.

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

Section 721.131 Hazardous Wastes From Nonspecific Sources

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

Industry and EPA Hazardous Waste No.	Hazardous Waste	Hazard Code
Generic:		
F001.....	The following spent halogenated solvents used in degreasing: tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride and chlorinated fluorocarbons; and sludges from the recovery of these solvents in degreasing operations.	(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 and trichlorofluoromethane; and the still bottoms from the recovery of these solvents.	(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; and the still bottoms from the recovery of these solvents.	(I)
F004.....	The following spent non-halogenated solvents: cresols and cresylic acid and nitrobenzene; and the still bottoms from the recovery of these solvents.	(T)
F005.....	The following spent non-halogenated solvents: toluene, methyl ethyl ketone, carbon disulfide,	(I, T)

	isobutanol and pyridine; and the still bottoms from the recovery of these solvents.	
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.....	Wastewater treatment sludges from the chemical conversion coating of aluminum.	(T)
F007.....	Spent cyanide plating bath solutions from electroplating operations ~~(except for precious metals electroplating spent cyanide plating bath solutions)~~.	(R, T)
F008.....	Plating bath residues ~~sludges~~ from the bottom of plating baths from electroplating operations where cyanides are used in the process ~~(except for precious metals electroplating plating bath sludges)~~.	(R, T)
F009.....	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process ~~(except for precious metals electroplating spent stripping and cleaning bath solutions)~~.	(R, T)
F010.....	Quenching bath residues ~~sludge~~ from oil baths from metal heat treating operations where cyanides are used in the process ~~(except for precious metals heat-treating quenching bath sludges)~~.	(R, T)
F011.....	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations ~~(except for precious metals heat treating spent cyanide solutions from salt bath pot cleaning)~~.	(R, T)
F012.....	Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process ~~(except for precious metals heat treating quenching wastewater treatment sludges)~~.	(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-tetra- or ~~pentachlorophenol~~, or tetrachlorophenol, or of	(H)

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.)

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~~F021~~... 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~~F022~~... 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 ~~materials listed under F020 and F021.~~ (H)

~~F023..... Discarded unused formulations containing tri tetra or pentachlorophenols or discarded unused formulations containing compounds derived from these chlorophenols.~~

F024..... Wastes including but not limited to, distillation residues, heavy ends, tars, and reactor cleanout wastes from the production of chlorinated aliphatic hydrocarbons, having carbon content from one to five, utilizing free radical catalyzed processes. (This listing does not include light ends, spent filters and filter aids, spent dessicants, wastewater, wastewater treatment sludges, spent catalysts and wastes listed in Section 721.132.) (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 (H)

	hexachlorobenzene under alkaline conditions.	
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)

(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 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.

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	(T)

	production of iron blue pigments.	
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 acetrontrile column in the production of acrylontrile.	(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)
KC27	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.	
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	(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.	
K038	Wastewater from the washing and stripping of phorate production.	
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.	
K099	Untreated wastewater from the production of 2,4-D.	(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 from steel finishing operations.	(C,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 organo-arsenic 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, casutic 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 cooking operations.	(T)

K087 Decanter tank tar sludge from cooking operations. (T)

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

Section 721.133 Discarded Commercial Chemical Products, Off-Specification Species, Containers 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 burned for purposes of energy recovery in lieu of their original intended use, when they are used to produce fuels in lieu of their original intended use, when they are applied to the land in lieu of their original intended use, or when they are contained in products that are applied to the land in lieu of their original intended use.

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

c) Any container or inner liner removed from a container that has been used to hold any commercial chemical product or manufacturing chemical intermediate having the generic names listed in paragraph (e), or any container or inner liner removed from a container that has been used to hold any off-specification chemical product and manufacturing chemical intermediate which, if it met specifications, would have the generic name listed in paragraph (e) unless:

1) The container or inner liner has been triple rinsed using a solvent capable of removing the commercial chemical product or manufacturing chemical intermediate;

2) The container or inner liner has been cleansed by another method that has been shown in the scientific literature, or by tests conducted by the generator, to achieve equivalent removal; or

3) In the case of a container, the inner liner that prevented contact of the commercial chemical product or manufacturing chemical intermediate with the container, has been removed.

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 paragraph (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 paragraph (e) or (f).

(~~Comment~~ 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 paragraphs (e) or (f). Where a manufacturing process waste is deemed to be a hazardous waste because it contains a substance listed in paragraphs (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.)

e) The commercial chemical products, manufacturing chemical intermediates or off-specification commercial chemical products or manufacturing chemical intermediates referred to in paragraphs (a) through (d) of this Section, are identified as acute hazardous waste (H) and are subject to the small quantity exclusion defined in Section 721.105(e).

(~~Comment~~ 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. These wastes and their corresponding EPA Hazardous Waste Numbers are:)

Hazardous Waste No.	Substance
P023	Acetaldehyde, chloro-
P002	Acetamide, N-(aminothioxomethyl)-
P057	Acetamide, 2-fluoro-
P058	Acetic acid, fluoro-, sodium salt
P066	Acetimedic acid, N-[(methylcarbamoyl)oxy]thio-, methyl ester
P001	3-(alpha-acetonylbenzyl)-4-hydroxycoumarin and salts, when present at concentrations greater than 0.3%
P002	1-Acetyl-2-thiourea
P003	Acrolein
P070	Aldicarb
P004	Aldrin
P005	Allyl alcohol
P006	Aluminum phosphide
P007	5-(Aminomethyl)-3-isoxazolol
P008	4-Aminopyridine
P009	Ammonium picrate (R)
P119	Ammonium vanadate
P010	Arsenic acid
P012	Arsenic (III) oxide
P011	Arsenic (V) oxide
P011	Arsenic pentoxide
P012	Arsenic trioxide
P038	Arsine, diethyl-
P054	Aziridine
P013	Barium cyanide
P024	Benzenamine, 4-chloro-
P077	Benzenamine, 4-nitro-
P028	Benzene, (chloromethyl)-
P042	1,2-Benzenediol, 4-[1-hydroxy-2-(methyl-amino)ethyl]-
P014	Benzenethiol
P028	Benzyl chloride
P015	Beryllium dust
P016	Bis(chloromethyl) ether
P017	Bromoacetone
P018	Brucine
P021	Calcium cyanide
P123	Camphene, octachloro-
P103	Carbamidoselensoic acid

P022	Carbon bisulfide
P022	Carbon disulfide
P095	Carbonyl chloride
P033	Chlorine cyanide
P023	Chloroacetaldehyde
P024	p-Chloroaniline
P026	1-(o-Chlorophenyl)thiourea
P027	3-Chloropropionitrile
P029	Copper cyanides
P030	Cyanides (soluble cyanide salts), not elsewhere specified
P031	Cyanogen
P033	Cyanogen chloride
P036	Dichlorophenylarsine
P037	Dieldrin
P038	Diethylarsine
P039	O,O-Diethyl S-[2-(ethylthio)ethyl] phosphoro-dithioate
P041	Diethyl-p-nitrophenyl phosphate
P040	O,O-Diethyl O-pyrazinyl phosphorothioate
P043	Diisopropyl fluorophosphate
P044	Dimethoate
P045	3,3-Dimethyl-1-(methylthio)-2-butanone, O-[(methylamino) carbonyl] oxime
P071	O,O-Dimethyl O-p-nitrophenyl phosphorothioate
P082	Dimethylnitrosamine
P046	alpha, alpha-Dimethylphenethylamine
P047	4,6-Dinitro-o-cresol and salts
P034	4,6-Dinitro-o-cyclohexylphenol
P048	2,4-Dinitrophenol
P020	Dinoseb
P085	Diphosphoramide, octamethyl-
P039	Disulfoton
P049	2,4-Dithiobiuret
P109	Dithiopyrophosphoric acid, tetraethyl ester
P050	Endosulfan
P088	Endothall
P051	Endrin
P042	Epinephrine
P046	Ethanamine, 1,1-dimethyl-2-phenyl-
P084	Ethenamine, N-methyl-N-nitroso-
P101	Ethyl cyanide
P054	Ethylenimine
P097	Famphur
P056	Forine
P057	Fluoroacetamide
P058	Fluoroacetic acid, sodium salt
P065	Fulminic acid, mercury (II) salt (R,T)

P059	Heptachlor
P051	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo, endo-1, 4:5, 8-dimethanonaphthalene
P037	1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-endo, exo-1, 4:5, 8-dimethanonaphthalene
P060	1,2,3,4,10,10-Hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-endo, endo-dimethanonaphthalene
P004	1,2,3,4,10,10,-Hexachloro-1,4,4a,5,8,8a-hexahydro-1 ,4:5,8-endo, exo-dimethanonaphthalene
P060	Hexachlorohexahydro-exo,exo-dimethanonaphthalene
P062	Hexaethyl tetraphosphate
P116	Hydrazinecarbothioamide
P068	Hydrazine, methyl-
P063	Hydrocyanic acid
P063	Hydrogen cyanide
P096	Hydrogen phosphide
P064	Isocyanic acid, methyl ester
P007	3(2H)-Isoxazolone, 5-(aminomethyl)-
P092	Mercury, phenyl-, acetate
P065	Mercury fulminate (R,T)
P016	Methane, oxybis(chloro-
P112	Methane, tetranitro- (R)
P118	Methanethiol, trichloro-
P059	4,7-Methano-1H-indene,1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-
P066	Methomyl
P067	2-Methylaziridine
P068	Methyl hydrazine
P064	Methyl isocyanate
P069	2-Methyllactonitrile
P071	Methyl parathion
P072	alpha-Naphthylthiourea
P073	Nickel carbonyl
P074	Nickel cyanide
P074	Nickel(II) cyanide
P073	Nickel tetracarbonyl
P075	Nicotine and salts
P076	Nitric oxide
P077	p-Nitroaniline
P078	Nitrogen dioxide
P076	Nitrogen (II) oxide
P078	Nitrogen (IV) oxide
P081	Nitroglycerine (R)
P082	N-Nitrosodimethylamine

P084	N-Nitrosomethylvinylamine
P050	5-Norbornene-2,3-dimethanol, 1,4,5,6,7,7-hexachloro, cyclic sulfite
P085	Octamethylpyrophosphoramide
P087	Osmium oxide
P087	Osmium tetroxide
P088	7-Oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
P089	Parathion
P034	Phenol, 2-cyclohexyl-4,6-dinitro-
P048	Phenol, 2,4-dinitro-
P047	Phenol, 2,4,-dinitro-6-methyl-
P020	Phenol, 2,4-dinitro-6-(1-methylpropyl)-
P009	Phenol, 2,4,6-trinitro-, ammonium salt (R)
P036	Phenyl dichloroarsine
P092	Phenylmercuric acetate
P093	N-Phenylthiourea
P094	Phorate
P095	Phosgene
P096	Phosphine
P041	Phosphoric acid, diethyl p-nitrophenyl ester
P044	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl]ester
P043	Phosphorofluoric acid, bis(1-methylethyl)ester
P094	Phosphorothioic acid, O,O-diethyl S-(ethylthio)methyl ester
P089	Phosphorothioic acid, O,O-diethyl O-(p-nitrophenyl) ester
P040	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
P097	Phosphorothioic acid, O,O-dimethyl O-[p-((dimethylamino)-sulfonyl)phenyl]ester
P110	Plumbane, tetraethyl-
P098	Potassium cyanide
P099	Potassium silver cyanide
P070	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino) carbonyl]oxime
P101	Propanenitrile
P027	Propanentrile, 3-chloro-
P069	Propanenitrile, 2-hydroxy-2-methyl-
P081	1,2,3-Propanetriol, trinitrate- (R)
P017	2-Propanone, 1-bromo-
P102	Propargyl alcohol
P003	2-Propenal
P005	2-Propen-1-ol
P067	1,2-Propylenimine
P102	2-Propyn-1-ol
P008	4-Pyridinamine
P075	Pyridine, (S)-3-(1-methy-2-pyrrolidinyl)-, and salts

P111	Pyrophosphoric acid, tetraethyl ester
P103	Selenourea
P104	Silver cyanide
P105	Sodium azide
P106	Sodium cyanide
P107	Strontium sulfide
P108	Strychnidin-10-one, and salts
P018	Strychnidin-10-one, 2,3-dimethoxy-
P108	Strychnine and salts
P115	Sulfuric acid, thallium(I) salt
P109	Tetraethyldithiopyrophosphate
P110	Tetraethyl lead
P111	Tetraethylpyrophosphate
P112	Tetranitromethane (R)
P062	Tetraphosphoric acid, hexaethyl ester
P113	Thallic oxide
P113	Thallium(III) oxide
P114	Thallium(I) selenite
P115	Thalliums (I) sulfate
P045	Thiofanox
P049	Thioimidodicarbonic diamide
P014	Thiophenol
P116	Thiosemicarbazide
P026	Thiourea, (2-chlorophenyl)-
P072	Thiourea, 1-naphthalenyl-
P093	Thiourea, phenyl-
P123	Toxaphene
P118	Trichloromethanethiol
P119	Vanadic acid, ammonium salt
P120	Vanadium pentoxide
P120	Vanadium(V) oxide
P001	Warfarin, when present at concentration greater than 0.3%.
P121	Zinc cyanide
P122	Zinc phosphide, 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 paragraphs (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 (f).

(~~Comment~~ 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. These wastes and their corresponding EPA Hazardous Waste Numbers are:)

Hazardous Waste No.	Substance
U001	Acetaldehyde (I)
U034	Acetaldehyde, trichloro-
U187	Acetamide, N-(4-ethoxyphenyl)-
U005	Acetamide, N-9H-fluoren-2-yl-
U112	Acetic acid, ethyl ester (I)
U144	Acetic acid, lead salt
U214	Acetic acid, thallium(I) salt
U002	Acetone (I)
U003	Acetonitrile (I,T)
U248	3-(alpha-Acetonylbenzyl)-4-hydroxycoumarin and salts, when present at concentrations of 0.3% or less
U004	Acetophenone
U005	2-Acetylaminofluorene
U006	Acetyl chloride (C,R,T)
U007	Acrylamide
U008	Acrylic acid (I)
U009	Acrylontrile
U150	Alanine, 3-[p-bis(2-chloroethyl)amino] phenyl-, L-
U011	Amitrole
U012	Aniline (I,T)
U014	Auramine
U015	Azaserine
U010	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-,
U157	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-
U016	Benz(c)acridine
U016	3,4-Benzacridine
U017	Benzal chloride
U018	Benz[a]anthracene
U018	1,2-Benzanthracene
U094	1,2-Benzanthracene, 7,12-dimethyl-
U012	Benzenamine (I,T)
U014	Benzenamine, 4,4'-carbonimidoylbis(N,N-dimethyl-
U049	Benzenamine, 4-chloro-2-methyl-
U093	Benzenamine, N,N'-dimethyl-4-phenylazo-
U158	Benzenamine, 4,4'-methylenebis(2-chloro-
U222	Benzenamine, 2-methyl-, hydrochloride

U181	Benzenamine, 2-methyl-5-nitro
U019	Benzene (I,T)
U038	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy, ethyl ester
U030	Benzene, 1-bromo-4-phenoxy-
U037	Benzene, chloro-
U190	1,2-Benzenedicarboxylic acid anhydride
U028	1,2-Benzenedicarboxylic acid, [bis(2-ethylhexyl)] ester
U069	1,2-Benzenedicarboxylic acid, dibutyl ester
U088	1,2-Benzenedicarboxylic acid, diethyl ester
U102	1,2-Benzenedicarboxylic acid, dimethyl ester
U107	1,2-Benzenedicarboxylic acid, di-n-octyl ester
U070	Benzene, 1,2-dichloro-
U071	Benzene, 1,3-dichloro-
U072	Benzene, 1,4-dichloro-
U017	Benzene, (dichloromethyl)-
U223	Benzene, 1,3-diisocyanatomethyl-(R,T)
U239	Benzene, dimethyl-(I,T)
U201	1,3-Benzenediol
U127	Benzene, hexachloro-
U056	Benzene, hexahydro-(I)
U188	Benzene, hydroxy-
U220	Benzene, methyl-
U105	Benzene, 1-methyl-1-2,4-dinitro-
U106	Benzene, 1-methyl-2,6-dinitro-
U203	Benzene, 1,2-methylenedioxy-4-allyl-
U141	Benzene, 1,2-methylenedioxy-4-propenyl-
U090	Benzene, 1,2-methylenedioxy-4-propyl-
U055	Benzene, (1-methylethyl)- (I)
U169	Benzene, nitro- (I,T)
U183	Benzene, pentachloro-
U185	Benzene, pentachloronitro-
U020	Benzenesulfonic acid chloride (C,R)
U020	Benzenesulfonyl chloride (C,R)
U207	Benzene, 1,2,4,5-tetrachloro-
U023	Benzene, (trichloromethyl)-(C,R,T)
U234	Benzene, 1,3,5-trinitro- (R,T)
U021	Benzidine
U202	1,2-Benzisothiazolin-3-one, 1,1-dixoide
U120	Benzo[j,k]fluorene
U022	Benzo[a]pyrene
U022	3,4-Benzopyrene
U197	3-Benzoquinone
U023	Benzotrichloride (C,R,T)
U050	1,2-Benzphenanthrene
U085	2,2'-Bioxirane (I,T)

U021	(1,1'-Biphenyl)-4,4'-diamine
U073	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dichloro-
U091	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethoxy-
U095	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-
U024	Bis(2-chloroethoxy) methane
U027	Bis(2-chloroisopropyl) ether
U244	Bis(dimethylthiocarbamoyl) disulfide
U028	Bis(2-ethylhexyl) phthalate
U246	Bromine cyanide
U225	Bromoform
U030	4-Bromophenyl phenyl ether
U128	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U172	1-Butanamine, N-butyl-N-nitroso-
U035	Butanoic acid, 4-[Bis(2-chloroethyl)amino] benzene-
U031	1-Butanol (I)
U159	Butanone (I,T)
U160	2-Butanone peroxide (R,T)
U053	2-Butenal
U074	2-Butene, 1,4-dichloro- (I,T)
U031	n-Butyl alcohol (I)
U136	Cacodylic acid
U032	Calcium chromate
U238	Carbamic acid, ethyl ester
U178	Carbamic acid, methylnitroso-, ethyl ester
U176	Carbamide, N-ethyl-N-nitroso-
U177	Carbamide, N-methyl-N-nitroso-
U219	Carbamide, thio-
U097	Carbamoyl chloride, dimethyl
U215	Carbonic acid, dithallium (I) salt
U156	Carbonochloridic acid, methyl ester (I,T)
U033	Carbon oxyfluoride (R,T)
U211	Carbon tetrachloride
U033	Carbonyl fluoride (R,T)
U034	Chloral
U035	Chlorambucil
U036	Chlordane, technical
U026	Chlornaphazine
U037	Chlorobenzene
U039	4-Chloro-m-cresol
U041	1-chloro-2,3-epoxypropane
U042	2-Chloroethyl vinyl ether
U044	Chloroform
U046	Chloromethyl methyl ether
U047	beta-Chloronapthalene
U048	o-Chlorophenol
U049	4-chloro-o-toluidine, hydrochloride
U032	Chromic acid, calcium salt

U050	Chrysene
U051	Creosote
U052	Cresols
U052	Cresylic acid
U053	Crotonaldehyde
U055	Cumeme (I)
U246	Cyanogen bromide
U197	1,4-Cyclohexadienedione
U056	Cyclohexane (I)
U057	Cyclohexanone (I)
U130	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U058	Cyclophosphamide
U240	2,4-D, salts and esters
U059	Daunomycin
U060	DDD
U061	DDT
U142	Decachlorooctahydro-1,3,4-metheno-2H-cyclobuta[c,d]-pentalen-2-one
U062	Diallate
U133	Diamine (R,T)
U221	Diaminotoluene
U063	Dibenz[a,h]anthracene
U063	1,2:5,6-Dibenzanthracene
U064	1,2:7,8-Dibenzopyrene
U064	Dibenz[a,i]pyrene
U066	1,2-Dibromo-3-chloropropane
U069	Dibutyl phthalate
U062	S-(2,3-Dichloroallyl) diisopropylthiocarbamate
U070	o-Dichlorobenzene
U071	m-Dichlorobenzene
U072	p-Dichlorobenzene
U073	3,3'-Dichlorobenzidine
U074	1,4-Dichloro-2-butene (I,T)
U075	Dichlorodifluoromethane
U192	3,5-Dichloro-N-(1,1-dimethyl-2-propynyl) benzamide
U060	Dichloro diphenyl dichloroethane
U061	Dichloro diphenyl trichloroethane
U078	1,1-Dichloroethylene
U079	1,2-Dichloroethylene
U025	Dichloroethyl ether
U081	2,4-Dichlorophenol
U082	2,6-Dichlorophenol
U240	2,4-Dichlorophenoxyacetic acid, salts and esters
U083	1,2-Dichloropropane
U084	1,3-Dichloropropene
U085	1,2:3,4-Diepoxybutane (I,T)

U108	1,4-Diethylene dioxide
U086	N,N-Diethylhydrazine
U087	O,O-Diethyl-S-methyl-dithiophosphate
U088	Diethyl phthalate
U089	Diethylstilbestrol
U148	1,2-Dihydro-3,6-pyradizinedione
U090	Dihydrosafrole
U091	3,3'-Dimethoxybenzidine
U092	Dimethylamine (I)
U093	Dimethylaminoazobenzene
U094	7,12-Dimethylbenz[a]anthracene
U095	3,3'-Dimethylbenzidine
U096	alpha, alpha-Dimethylbenzylhydroperoxide (R)
U097	Dimethylcarbamoyl chloride
U098	1,1-Dimethylhydrazine
U099	1,2-Dimethylhydrazine
U101	2,4-Dimethylphenol
U102	Dimethyl phthalate
U103	Dimethyl sulfate
U105	2,4-Dinitrotoluene
U106	2,6-Dinitrotoluene
U107	Di-n-octyl phthalate
U108	1,4-Dioxane
U109	1,2-Diphenylhydrazine
U110	Dipropylamine (I)
U111	Di-N-propylnitrosoamine
U001	Ethanal (I)
U174	Ethanamine, N-ethyl-N-nitroso-
U067	Ethane, 1,2-dibromo-
U076	Ethane, 1,1-dichloro-
U077	Ethane, 1,2-dichloro-
U114	1,2-Ethanediylbiscarbamodithioic acid
U131	Ethane, 1,1,1,2,2,2-hexachloro-
U024	Ethane, 1,1'-[methylenebis(oxy)]bis(2-chloro-
U247	Ethane, 1,1,1-trichloro-2,2-bis(p-methoxyphenol)-
U003	Ethanenitrile (I,T)
U117	Ethane, 1,1'-oxybis- (I)
U025	Ethane, 1,1'-oxybis(2-chloro-
U184	Ethane, pentachloro-
U208	Ethane, 1,1,1,2-tetrachloro-
U209	Ethane, 1,1,2,2-tetrachloro-
U218	Ethanethioamide
U227	Ethane, 1,1,2-trichloro-
U043	Ethene, chloro-
U042	Ethene, 2-chloroethoxy-
U078	Ethene, 1,1-dichloro-
U079	Ethene, trans-1,2-dichloro-

U210	Ethene, 1,1,2,2-tetrachloro-
U173	Ethanol, 2,2'-(nitrosoimino)bis-
U004	Ethanone, 1-phenyl-
U006	Ethanoyl chloride (C,R,T)
U112	Ethyl acetate (I)
U113	Ethyl acrylate (I)
U238	Ethyl carbamate (urethan)
U038	Ethyl 4,4'-dichlorobenzilate
U114	Ethylenebis(dithiocarbamic acid)
U067	Ethylene dibromide
U077	Ethylene dichloride
U115	Ethylene oxide (I,T)
U116	Ethylene thiourea
U117	Ethyl ether (I)
U076	Ethylidene dichloride
U118	Ethylmethacrylate
U119	Ethyl methanesulfonate
U139	Ferric dextran
U120	Fluoranthene
U122	Formaldehyde
U123	Formic acid (C,T)
U124	Furan (I)
U125	2-Furancarboxaldehyde (I)
U147	2,5-Furandione
U213	Furan, tetrahydro- (I)
U125	Furfural (I)
U124	Furfuran (I)
U206	D-Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-
U126	Glycidylaldehyde
U163	Guanidine, N-nitroso-N-methyl-N'-nitro
U127	Hexachlorobenzene
U128	Hexachlorobutadiene
U129	Hexachlorocyclohexane (gamma isomer)
U130	Hexachlorocyclopentadiene
U131	Hexachloroethane
U132	Hexachlorophene
U243	Hexachloropropene
U133	Hydrazine (R,T)
U086	Hydrazine, 1,2-diethyl-
U098	Hydrazine, 1,1-dimethyl-
U099	Hydrazine, 1,2-dimethyl-
U109	Hydrazine, 1,2-Diphenyl-
U134	Hydrofluoric acid (C,T)
U134	Hydrogen fluoride (C,T)
U135	Hydrogen sulfide
U096	Hydroperoxide, 1-methyl-1-phenylethyl- (R)

U136	Hydroxydimethylarsine oxide
U116	2-Imidazolidinethione
U137	Indeno[1,2,3-cd]pyrene
U139	Iron dextran
U140	Isobutyl alcohol (I,T)
U141	Isosafrole
U142	Kepone
U143	Lasiocarpene
U144	Lead acetate
U145	Lead phosphate
U146	Lead subacetate
U129	Lindane
U147	Maleic anhydride
U148	Maleic hydrazide
U149	Malononitrile
U150	Melphalan
U151	Mercury
U152	Methacrylonitrile (I,T)
U092	Methanamine, N-methyl- (I)
U029	Methane, bromo
U045	Methane, chloro- (I,T)
U046	Methane, chloromethoxy-
U068	Methane, dibromo-
U080	Methane, dichloro-
U075	Methane, dichlorodifluoro-
U138	Methane, iodo-
U119	Methanesulfonic acid, ethyl ester
U211	Methane, tetrachloro-
U121	Methane, trichlorofluoro-
U153	Methanethiol (I,T)
U225	Methane, tribromo-
U044	Methane, trichloro-
U121	Methane, trichlorofluoro-
U123	Methanoic acid (C,T)
U036	4,7-Methanoindan, 1,2,4,5,6,7,8,8-octachloro-3a,4,7,7a-tetrahydro-
U154	Methanol (I)
U155	Methapyrilene
U154	Methyl alcohol (I)
U029	Methyl bromide
U186	1-Methylbutadiene (I)
U045	Methyl chloride (I,T)
U156	Methyl chlorocarbonate (I,T)
U226	Methylchloroform
U157	3-Methylcholanthrene
U158	4,4'-Methylenebis(2-chloroaniline)
U132	2,2'-Methylenebis(3,4,6-trichlorophenol)

U068	Methylene bromide
U080	Methylene chloride
U122	Methylene oxide
U159	Methyl ethyl ketone (I,T)
U160	Methyl ethyl ketone peroxide (R,T)
U138	Methyl iodide
U161	Methyl isobutyl ketone (I)
U162	Methyl methacrylate (I,T)
U163	N-Methyl-N'-nitro-N-nitrosoguanidine
U161	4-Methyl-2-pentanone (I)
U164	Methylthiouracil
U247	Methoxychlor
U010	Mitomycin C
U059	5,12-Naphthacenedione, (8S-cis)-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-
U165	Naphthalene
U047	Naphthalene, 2-chloro-
U166	1,4-Naphthalenedione
U236	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	1,4-Naphthaquinone
U167	1-Naphthylamine
U168	2-Naphthylamine
U167	alpha-Naphthylamine
U168	beta-Naphthylamine
U026	2-Naphthylamine, N,N'-bis(2-chloromethyl)-
U169	Nitrobenzene (I,T)
U170	p-Nitrophenol
U171	2-Nitropropane (I)
U172	N-Nitrosodi-n-butylamine
U173	N-Nitrosodiethanolamine
U174	N-Nitrosodiethylamine
U111	N-Nitroso-N-propylamine
U176	N-Nitroso-N-ethylurea
U177	N-Nitroso-N-methylurea
U178	N-Nitroso-N-methylurethane
U179	N-Nitrosopiperidine
U180	N-Nitrosopyrrolidine
U181	5-Nitro-o-toluidine
U193	1,2-Oxathiolane, 2,2-dioxide
U058	2H-1,3,2-Oxazaphosphorine, 2-[bis(2-chloro-ethyl)amino]tetrahydro-, oxide 2-
U115	Oxirane (I,T)
U041	Oxarane, 2-(chloromethyl)-

U182	Paraldehyde
U183	Pentachlorobenzene
U184	Pentachloroethane
U185	Pentachloronitrobenzene
See F027	Pentachlorophenol
U186	1,3-pentadiene (I)
U187	Phenacetin
U188	Phenol
U048	Phenol, 2-chloro-
U039	Phenol, 4-chloro-3-methyl-
U081	Phenol, 2,4-dichloro-
UQ82	Phenol, 2,6-dichloro-
U101	Phenol, 2,4-dimethyl-
U170	Phenol, 4-nitro-
See F027	Phenol, pentachloro-
See F027	Phenol, 2,3,4,6-tetrachloro-
See F027	Phenol, 2,4,5-trichloro-
See F027	Phenol, 2,4,6-trichloro-
U137	1,10-(1,2-phenylene)pyrene
U145	Phosphoric acid, lead salt
U087	Phosphorodithioic acid, O,O-diethyl-, S-methyl-ester
U189	Phosphorous sulfide (R)
U190	Phthalic anhydride
U191	2-Picoline
U192	Pronamide
U194	1-Propanamine (I,T)
U110	1-Propanamine, N-propyl-(I)
U066	Propane, 1,2-dibromo-3-chloro-
U149	Propanedinitrile
U171	Propane, 2-nitro- (I)
U027	Propane, 2,2'-oxybis[2-chloro-
U193	1,3-Propane sultone
U235	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U126	1-Propanol, 2,3-epoxy-
U140	1-Propanol, 2-methyl- (I,T)
U002	2-Propanone (I)
U007	2-Propenamide
U084	Propene, 1,3-dichloro-
U243	1-Propene, 1,1,2,3,3,3-hexachloro-
U009	2-Propenenitrile
U152	2-Propenenitrile, 2-methyl- (I,T)
U008	2-Propenoic acid (I)
U113	2-Propenoic acid, ethyl ester (I)
U118	2-Propenoic acid, 2-methyl-, ethyl ester
U162	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
See F027	Propionic acid,2-(2,4,5-trichlorophenoxy)-
U194	n-Propylamine (I,T)

U083	Propylene dichloride
U196	Pyridine
U155	Pyridine, 2-[(2-(dimethylamino)-2-thenylamino]-
U179	Pyridine, hexahydro-N-nitroso-
U191	Pryidine, 2-methyl-
U164	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U180	Pyrrole, tetrahydro-N-nitroso-
U200	Reserpine
U201	Resorcinol
U202	Saccharin and salts
U203	Safrole
U204	Selenious acid
U204	Selenium dioxide
U205	Selenium disulfide (R,T)
U015	L-Serine, diazoacetate (ester)
See F027	Silvex
U089	4,4'-Stilbenediol, alpha, alpha'-diethyl-
U206	Streptozotocin
U135	Sulfur hydride
U103	Sulfuric acid, dimethyl ester
U189	Sulfur phosphide (R)
U205	Sulfur selenide (R,T)
See F027	2,4,5-T
U207	1,2,4,5-Tetrachlorobenzene
U208	1,1,1,2-Tetrachloroethane
U209	1,1,2,2-Tetrachloroethane
U210	Tetrachloroethylene
See F027	2,3,4,6-Tetrachlorophenol
U213	Tetrahydrofuran (I)
U214	Thallium (I) acetate
U215	Thallium (I) carbonate
U216	Thallium (I) chloride
U217	Thallium (I) nitrate
U218	Thioacetamide
U153	Thiomethanol (I,T)
U219	Thiourea
U244	Thiram
U220	Toluene
U221	Toluenediamine
U223	Toluene diisocyanate (R,T)
U222	o-Toluidine hydrochloride
U011	1H-1,2,4-Triazol-3-amine
U226	1,1,1-Trichloroethane
U227	1,1,2-Trichloroethane
U228	Trichloroethene
U228	Trichloroethylene

U121	Trichloromonofluoromethane
See F027	2,4,5-Trichlorophenol
See F027	2,4,6-Trichlorophenol
See F027	2,4,5-Trichlorophenoxyacetic acid
U234	sym-Trinitrobenzene (R,T)
U182	1,3,5-Trioxane, 2,4,6-trimethyl-
U235	Tris(2,3-dibromopropyl) phosphate
U236	Trypan blue
U237	Uracil, 5[bis(2-chloroethyl)amino]-
U237	Uracil mustard
U043	Vinyl chloride
U248	Warfarin, when present at concentrations of 0.3% or less
U239	Xylene (I)
U249	Zinc phosphide, when present at concentrations of 10% or less
U200	Yohimban-16-carboxylic acid, 11,17-di-methoxy-18-[(3,4,5-trimethoxy-benzoyl)oxy]-,methyl ester

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

Appendix C Chemical Analysis Test Methods

See Appendix III to 40 CFR 261

~~Tables A, B, and C specify the appropriate analytical procedures described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (incorporated by reference, see Section 720.111), which shall be used in determining whether the waste in question contains a given toxic constituent. Table A identifies the analytical class and the approved measurement techniques for each organic chemical listed in Appendix G.~~

~~Table B identifies the corresponding methods for the inorganic species.~~

~~Table C identifies the specific sample preparation and measurement instrument introduction techniques which may be suitable for both the organic and inorganic species as well as the matrices of concern.~~

~~Prior to final selection of the analytical methods the operator should consult the specific method descriptions in SW-846 for additional guidance on which of the approved methods should be employed for a specific waste analysis situation.~~

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

TABLE A. ANALYTICAL CHARACTERISTICS OF ORGANIC CHEMICALS (Repealed)

Compound	Sample handling class/fraction	Non-GC methods	Measurement techniques		
			GC/HS	Conventional GC	Detector
Acetonitrile	Volatile		8,24	8,03	NSD
Acrolein	Volatile		8,24	8,03	NSD
Acrylamide	Volatile		8,24	8,01	FID
Acrylonitrile	Volatile		8,24	8,03	NSD
Benzene	Volatile		8,24	8,02	PID
Benz(a)anthracene	Extractable/BN	8,10(HPLC)	8,25	8,10	FID
Benzo(a)pyrene	Extractable/BN	8,10(HPLC)	8,25	8,10	FID
Benzotrichloride	Extractable/BN		8,25	8,12	ECD
Benzyl chloride	Volatile or		8,24	8,01	HSD
	Extractable/BN		8,25	8,12	ECD
Benz(b)fluoranthene	Extractable/BN	8,10(HPLC)	8,25	8,10	FID
Bis(2-chloroethoxymethane)	Volatile		8,24	8,01	HSD
Bis(2-chloroethyl)ether	Volatile		8,24	8,01	HSD
Bis(2-chloroisopropyl) ether	Volatile		8,24	8,01	HSD
Carbon disulfide	Volatile		8,24	8,01	HSD
Carbon tetrachloride	Volatile		8,24	8,01	HSD
Chlordane	Extractable/BN		8,25	8,08	HSD
Chlorinated dibenzo dioxins	Extractable/BN		8,25	8,08	ECD
Chlorinated dibenzo-p-dioxins	Extractable/BN		8280		
Chlorinated biphenyls	Extractable/BN		8,25	8,08	HSD
Chloroacetaldehyde	Volatile		8,24	8,01	NSD
Chlorobenzene	Volatile		8,24	8,01	NSD
				8,02	PID
Chloroform	Volatile		8,24	8,01	HSD
Chloromethane	Volatile		8,24	8,01	HSD
2-Chlorophenol	Extractable/BN		8,25	8,04	FID,ECD
Chrysene	Extractable/BN	8,10(HPLC)	8,25[1]	8,10	FID
Creosote	Extractable/BN		8,25	8,10	ECD
Cresol(s)	Extractable/A		8,25	8,04	FID,ECD
Cresylic acid(s)	Extractable/A		8,25	8,04	FID,ECD
Dichlorobenzene(s)	Extractable/BN		8,25	8,01	HSD
				8,02	PID
				8,12	ECD
Dichloroethane(s)	Volatile		8,24	8,01	HSD
Dichloromethane	Volatile		8,24	8,01	HSD
Dichlorophenoxy-acetic acid	Extractable/A		8,25	8,40	HSD
Dichloropropanol	Extractable/BN		8,25	8,12	ECD
2,4-Dimethylphenol	Extractable/A		8,25	8,04	FID,ECD
Dinitrobenzene	Extractable/BN		8,25	8,09	FID,ECD
4,6-Dinitro-o-cresol	Extractable/A		8,25	8,04	FID,ECD
2,4-Dinitrotoluene	Extractable/BN		8,25	8,09	FID,ECD
Endrin	Extractable/P		8,25	8,08	HSD
Ethyl ether	Volatile		8,24	8,01	FID
				8,02	FID
Formal dehyde	Volatile		8,24	8,01	FID
Formic acid	Extractable/BN		8,25	8,06	FID
Heptachlor	Extractable/P		8,25	8,06	HSD
Hexachlorobenzene	Extractable/BN		8,25	8,12	ECD
Hexachlorobutadiene	Extractable/BN		8,25	8,12	ECD
Hexachloroethane	Extractable/BN		8,25	8,12	ECD

[1] Analyze for phenanthrene and carbazole; if these are present in a ratio between 1,4:1 and 5:1, creosote should be considered present.

Compound	Sample handling class/fraction	Non-GC methods	Measurement techniques GC/MS	Conventional GC	Conventional Detector
Hexachlorocyclopentadiene	Extractable/BN		8.25	8.12	ECD
Lindane	Extractable/P		8.25	8.08	HSD
Maleic anhydride	Extractable/BN		8.25	8.06	ECD,FID
Methanol	Volatile		8.24	8.01	FID
Methomyl	Extractable/BN	8.324(HPLC)			
Methyl ethyl ketone	Volatile		8.25	8.01	FID
				8.02	FID
Methyl isobutly ketone	Volatile		8.25	8.01	FID
				8.02	FID
Naphthalene	Extractable/BN		8.25	8.10	FID
Napthequinone	Extractable/BN		8.25	8.06	ECD,FID
				8.09	FID
Nitrobenzene	Extractable/BN		8.25	8.09	ECD,FID
4-Nitrophenol	Extractable/A		8.24	8.04	ECD,FID
Paraldehyde (trimer of acetaldehyde)	Volatile		8.24	8.01	FID
Pentachlorophenol	Extractable/A		8.25	8.04	ECD
Phenol	Extractable/A		8.25	8.04	ECD,FID
Phorate	Extractable/BN			8.22	FPD
Phosphorodithioic acid esters	Extractable/BN			8.06	ECD,FID
				8.09	ECD,FID
				8.22	FPD
Phthalic anhydride	Extractable/BN		8.25	8.06	ECD,FID
				8.09	ECD,FID
2-Picoline	Extractable/BN		8.25	8.06	ECD,FID
				8.09	ECD,FID
Pyridine	Extractable/BN		8.25	8.06	ECD,FID
				8.09	ECD,FID
tetrachlorobenzene(s)	Extractable/BN		8.25	8.12	ECD
Tetrachloroethane(s)	Volatile		8.24	8.01	HSD
Tetrachloroethane	Volatile		8.24	8.01	HSD
Tetrachlorophenol	Extractable/A		8.24	8.04	ECD
Toluene	Volatile		8.24	8.02	PID
Toluenediamine	Extractable/BN		8.25		
Toluene diisocyanate(s)	Extractable/nonaqueous		8.25	8.06	FID
Toxaphene	Extractable/P		8.25	8.08	HSD
Trichloroethane	Volatile		8.24	8.01	HSD
Trichlorofluoromethane	Volatile		8.24	8.01	HSD
Trichlorophenol(s)	Extractable/A		8.25	8.04	HSD
2,4,5-TP (Silvex)	Extractable/A		8.25	8.40	HSD
Trichloropropane	Volatile		8.24	8.01	HSD
Vinyl chloride	Volatile		8.24	8.01	HSD
Vinylidene chloride	Volatile		8.24	8.01	HSD
Xylene	Volatile		8.24	8.02	PID

ECD = Electron capture detector; FID = Flame ionization detector; FPD = Flame photometric detector; HSD = Halide specific detector; HPLC = High pressure liquid chromotography; NSD = Nitrogen specific detector; PID = Photoionization detector

(Source: Repealed at Ill. Reg. , effective)

TABLE B Analytical Characteristics of Inorganic Species (Repealed)

Species	Sample handling class	Measurement technique	Method number
Antimony	Digestion	Atomic absorbtion-furnace/flame	8.50
Arsenic	Hydride	Atomic absorbtion-flame	8.51
Barium	Digestion	Atomic absorbtion-furnace/flame	8.52
Cadmium	Digestion	Atomic absorbtion-furnace/flame	8.53
Chromium	Digestion	Atomic absorbtion-furnace/flame	8.54
Cyanides	Hydrolysis	Atomic absorbtion-spectroscopy	8.55
Lead	Digestion	Atomic absorbtion-furnace/flame	8.56
Mercury	Cold Vapor	Atomic absorbtion	8.57
Nickel	Digestion	Atomic absorbtion-furnace/flame	8.58
Selenium	Hydride digestion	Atomic absorbtion-furnace/flame	8.59
Silver	Digestion	Atomic absorbtion-furnace/flame	8.60

(Source: Repealed at Ill. Reg. , effective)

TABLE C Sample Preparation/Sample Introduction Techniques (Repealed)

Sampling handling class	Physical characteristics of waste[1]		
	Fluid	Paste	Solid
Volatile	Purge and trap Direct injection	Purge and trap Headspace	Headspace
Semivolatile and nonvolatile	Direct injection Shake out	Shake out.	Shake out Soxhlet Sonication
Inorganic	Direct injection Digestion Hydride	Digestion Hydride	Digestion Hydride

Procedure and Methods Number(s)

Digestion - See appropriate procedure for element of interest.
Direct injection - 8.80
Headspace - 8.82
Hydride - See appropriate procedure for element of interest.
Purge & Trap - 8.83
Shake out - 8.84
Sonication - 8.85
Soxhlet - 8.86

(Source: Repealed at Ill. Reg. , effective)

[1]For purposes of this Table, fluid refers to readily pourable liquids which may or may not contain suspended particles. Paste like materials, while fluid in the sense of flowability, can be thought of as being thixotropic or plastic in nature, e.g., paints. Solid materials are those waste which can be handled without a container (i.e., can be piled up without appreciable sagging.

Appendix G Basis for Listing Hazardous Wastes

EPA hazardous waste No.	Hazardous constitutents for which listed
F001	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chlorinated fluorocarbons.
F002	Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane.
F003	N.A.
F004	Cresols and cresylic acid, nitrobenzene.
F005	Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine
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	~~Tetrachlorodibenzo-p-dioxins~~ Tetra- and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; tri- and tetrachlorophenols and their chlorophenoxy derivative acids, esters, ethers, amines and other salts.
F021	~~Tetrachlorodibenzo-p-dioxins~~ Penta-and hexachlorodibenzo-p-dioxins; penta- and hexachlorodibenzofurans; pentachlorophenol and its derivatives.
F022	~~Tetrachlorodibenzo-p-dioxins~~ Tetra-, penta- and hexachlorodibenzo-p-dioxins; tetra-, penta- and hexachlorodibenzofurans.
F023	~~Tetrachlorodibenzo-p-dioxins~~ Tetra- and pentachlorodibenzo-p-dioxins; tetra- and pentachlorodibenzofurans; 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.
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.
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	Hydrocyanic 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.
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.
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.

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

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

Appendix H Hazardous Constituents

acetonitrile (ethanenitrile)
acetophenone (ethanone, 1-phenyl-)
3-(alpha-acetonylbenzyl)-4-hydroxycoumarin and salts
    (warfarin)
2-acetylaminofluorene
    (acetamide, N-(9H-fluoren-2-yl)-)
acetyl chloride (ethanoyl chloride)
1-acetyl-2-thiourea
    (acetamide, N-(aminothioxomethyl)-)
acrolein (2-propenal)
acrylamide (2-propenamide)
acrylonitrile (2-propenenitrile)
aflatoxins
aldrin
    (1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-endo,exo-1,4:5,8-dimethanonaphthalene)
allyl alcohol (2-propen-1-ol)
aluminum phosphide
4-aminobiphenyl ([1,1'-biphenyl]-4-amine)
6-amino-1,1a,2,8,8a,8b-hexahydro-8-(hydroxymethyl)-8a-methoxy-5-methylcarbamate azirino[2',3':3,4]pyrrolo[1,2a]indole-4,7-dione, (ester) (mitomycin C)
    (azirino[2',3':3,4]pyrrolo(1,2a)indole-4,7-dione, 6-amino-8-[((aminocarbonyl)oxy)methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-)
5-(aminomethyl)-3-isoxazolol
    (3(2H)-isoxazolone, 5-(aminomethyl)-)
4-aminopyridine (4-pyridinamine)
amitrole (1H-1,2,4-triazol-3-amine)

aniline (benzenamine)
antimony and compounds, N.O.S. (not otherwise specified)
aramite
    (sulfurous acid, 2-chloroethyl-, 2-[4-(1,1-
    dimethylethyl)phenoxyl-1-methylethyl ester)
arsenic and compounds, N.O.S.
arsenic acid (orthoarsenic acid)
arsenic pentoxide (arsenic (V) oxide)
arsenic trioxide (arsenic (III) oxide)
auramine
    (benzenamine, 4,4'-carbonimidoylbis[N,N-dimethyl-,
    monohydrochloride]
azaserine (L-serine, diazoacetate (ester))
barium and compounds, N.O.S.
barium cyanide
benz[c]acridine (3,4-benzacridine)
benz[a]anthracene (1,2-benzanthracene)
benzene (cyclohexatriene)
benzenearsonic acid (arsonic acid, phenyl-)
benzene, dichloromethyl- (benzal chloride)
benzenethiol (thiophenol)
benzidine ([1,1'-biphenyl]-4,4'-diamine)
benzo(b)fluoranthene (2,3-benzofluoranthene)
benzo(j)fluoranthene (7,8-benzofluoranthene)
benzo(a)pyrene (3,4-benzopyrene)
p-benzoquinone (1,4-cyclohexadienedione)
benzotrichloride (benzene, trichloromethyl-)
benzyl chloride (benzene, (chloromethyl)-)
beryllium and compounds, N.O.S.
bis(2-chloroethoxy)methane
    (ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-])
bis(2-chloroethyl) ether
    (ethane, 1,1'-oxybis[2-chloro-])
N,N-bis(2-chloroethyl)-2-napthylamine
    (chlornaphazine)
bis(2-chloroisopropyl) ether
    (propane, 2,2'-oxybis[2-chloro]-)
bis(chloromethyl) ether
    (methane, oxybis[chloro]-)
bis(2-ethylhexyl) phthalate
    (1,2-benzenedicarboxylic acid, bis(2-ethylhexyl) ester)
bromoacetone (2-propanone, 1-bromo-)
bromomethane (methyl bromide)
4-bromophenyl phenyl ether
    (benzene, 1-bromo-4-phenoxy-)
brucine (strychnidin-10-one, 2,3-dimethoxy-)
2-butanone peroxide (methyl ethyl ketone, peroxide)

butyl benzyl phthalate
(1,2-benzenedicarboxylic acid, butyl phenylmethyl ester)
2-sec-butyl-4,6-dinitrophenol (DNBP)
(phenol, 2,4-dinitro-6-(1-methylpropyl)-)
cadmium and compounds, N.O.S.
calcium chromate (chromic acid, calcium salt)
calcium cyanide
carbon disulfide (carbon bisulfide)
carbon oxyfluoride (carbonyl fluoride)
chloral (acetaldehyde, trichloro-)
chlorambucil
(butanoic acid, 4-[bis(2-chloroethyl)amino]benzene-)
chlordane (alpha and gamma isomers)
(4,7-methanoindan,1,2,4,5,6,7,8,8-octachloro-
3,4,7,7a-tetrahydro-) (alpha and gamma isomers)
chlorinated benzenes, N.O.S.
chlorinated ethane, N.O.S.
chlorinated fluorocarbons, N.O.S.
chlorinated naphthalene, N.O.S.
chlorinated phenol, N.O.S.
chloroacetaldehyde (acetaldehyde, chloro-)
chloroalkyl ethers, N.O.S.
p-chloroaniline (benzeneamine, 4-chloro-)
chlorobenzene (benzene, chloro-)
chlorobenzilate
(benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-
alpha-hydroxy-, ethyl ester)
(2-chloro-1,3-butadiene (chloroprene)
p-chloro-m-cresol
(phenol, 4-chloro-3-methyl-)
1-chloro-2,3-epoxypropane
(oxirane, 2-(chloromethyl)-)
2-chloroethyl vinyl ether
(ethene, (2-chloroethoxy)-)
chloroform (methane, trichloro-)
chloromethane (methyl chloride)
chloromethyl methyl ether (methane, chloromethoxy-)
2-chloronaphthalene (naphthalene, beta-chloro-)
2-chlorophenol (phenol, o-chloro-)
1-(o-chlorophenyl)thiourea (thiourea, (2-chlorophenyl)-)
3-chloropropene (allyl chloride)
3-chloropropionitrile (propanenitrile, 3-chloro-)
chromium and compounds, N.O.S.
chrysene (1,2-benzphenanthrene)
citrus red No. 2
(2-naphthol, 1-[(2,5-dimethoxyphenyl)azo]-)
coal tars

copper cyanide
creosote (creosote, wood)
cresols (cresylic acid) (phenol, methyl-)
crotonaldehyde (2-butenal)
cyanides (soluble salts and complexes), N.O.S.
cyanogen (ethanedinitrile)
cyanogen bromide (bromine cyanide)
cyanogen chloride (chlorine cyanide)
cycasin
    (beta-D-glucopyranoside, (methyl-ONN-azoxy)methyl-)
2-cyclohexyl-4,6-dinitrophenol
    (phenol, 2-cyclohexyl-4,6-dinitro-)
cyclophosphamide
    (2H-1,3,2-oxazaphosphorine, [bis(2-chloroethyl)amino]-
    tetrahydro-, 2-oxide)
daunomycin
    (5,12-naphthacenedione, (8S-cis)-8-acetyl-10-
    [(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy]-
    7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-)
DDD (dichlorodiphenyldichloroethane)
    (ethane, 1,1-dichloro-2,2-bis(p-chlorophenyl)-)
DDE (ethylene, 1,1-dichloro-2,2-bis(4-chlorophenyl)-)
DDT (dichlorodiphenyltrichloroethane)
    (ethane, 1,1,1-trichloro-2,2-bis(p-chlorophenyl)-)
diallate
    (S-(2,3-dichloroallyl)diisopropylthiocarbamate)
dibenz[a,h]acridine (1,2,5,6-dibenzacridine)
dibenz[a,j]acridine (1,2,7,8-dibenzacridine)
dibenz[a,h]anthracene (1,2,5,6-dibenzanthracene)
7H-dibenzo[c,g]carbazole (3,4,5,6-dibenzcarbazole)
dibenzo[a,e]pyrene (1,2,4,5-dibenzpyrene)
dibenzo[a,h]pyrene (1,2,5,6-dibenzpyrene)
dibenzo[a,i]pyrene (1,2,7,8-dibenzpyrene)
1,2-dibromo-3-chloropropane
    (propane, 1,2-dibromo-3-chloro-)
1,2-dibromoethane (ethylene dibromide)
dibromomethane (methylene bromide)
di-n-butyl phthalate
    (1,2-benzenedicarboxylic acid, dibutyl ester)
o-dichlorobenzene (benzene, 1,2-dichloro-)
m-dichlorobenzene (benzene, 1,3-dichloro-)
p-dichlorobenzene (benzene, 1,4-dichloro-)
dichlorobenzene, N.O.S. (benzene, dichloro-, N.O.S.)
3,3'-dichlorobenzidine
    ([1,1'-biphenyl]-4,4'-diamine, 3,3'-dichloro-)
1,4-dichloro-2-butene (2-butene, 1,4-dichloro-)
dichlorodifluoromethane (methane, dichlorodifluoro-)

1,1-dichloroethane (ethylidine dichloride)
1,2-dichloroethane (ethylene dichloride)
trans-1,2-dichlorethene (1,2-dichlorethylene)
dichloroethylene, N.O.S. (ethene, dichloro-, N.O.S.)
1,1-dichloroethylene (ethene, 1,1-dichloro-)
dichloromethane (methylene chloride)
2,4-dichlorophenol (phenol, 2,4-dichloro-)
2,6-dichlorophenol (phenol, 2,6-dichloro-)
2,4-dichlorophenoxyacetic acid (2,4-D), salts and esters
(acetic acid, 2,4-dichlorophenoxy-, salts and esters)
dichlorophenyl arsine (phenyl dichloroarsine)
dichloropropane, N.O.S. (propane, dichloro-,N.O.S.)
1,2-dichloropropane (propylene dichloride)
dichloropropanol, N.O.S. (propanol, dichloro-, N.O.S.)
dichloropropene, N.O.S. (propene, dichloro-, N.O.S.)
1,3-dichloropropene (1-propene, 1,3-dichloro-)
dieldrin
(1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-
octahydro-endo,exo-1,4:5,8-dimethanonaphthalene)
1,2:3,4-diepoxybutane (2,2'-bioxirane)
diethylarsine (arsine, diethyl-)
N,N'-diethylhydrazine (hydrazine, 1,2-diethyl-)
O,O-diethyl S-methyl ester of phosphorodithioic acid
(phosphorodithioic acid, O,O-diethyl
S-methyl ester)
O,O-diethylphosphoric acid, O-p-nitrophenyl ester
(phosphoric acid, diethyl p-nitrophenyl ester)
diethyl phthalate
(1,2-benzenedicarboxylic acid, diethyl ester)
O,O-diethyl O-2-pyrazinyl phosphorothioate
(phosphorothioic acid, O,O-diethyl O-pyrazinyl ester)
diethylstilbestrol
(4,4'-stilbenediol, alpha,alpha-diethyl,
bis(dihydrogen phosphate, (E)-)
dihydrosafrole
(benzene, 1,2-methylenedioxy-4-propyl-)
3,4-dihydroxy-alpha-(methylamino)methyl benzyl alcohol
(1,2-benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-)
diisopropylfluorophosphate (DFP)
(phosphorofluoridic acid, bis(1-methylethyl) ester)
dimethoate
(phosphorodithioic acid, O,O-dimethyl
S-[2-(methylamino)-2-oxoethyl] ester)
3,3'-dimethoxybenzidine
([1,1'-biphenyl]-4,4'-diamine, 3,3'-dimethoxy-)
p-dimethylaminoazobenzene
(benzenamine, N,N-dimethyl-4-(phenylazo)-)

7,12-dimethylbenz[a]anthracene
(1,2-benzanthracene, 7,12-dimethyl-)
3,3'-dimethylbenzidine
([1,1'-biphenyl]-4,4'-diamine, 3,3'-dimethyl-)
dimethylcarbamoyl chloride
(carbamaoyl chloride, dimethyl-)
1,1-dimethylhydrazine (hydrazine, 1,1-dimethyl-)
1,2-dimethylhydrazine (hydrazine, 1,2-dimethyl-)
3,3-dimethyl-1-(methylthio)-2-butanone,
O-[(methylamino)carbonyl]oxime
(thiofanox)
alpha,alpha-dimethylphenethylamine
(ethanamine, 1,1-dimethyl-2-phenyl-)
2,4-dimethylphenol (phenol, 2,4-dimethyl-)
dimethyl phthalate
(1,2-benzenedicarboxylic acid, dimethyl ester)
dimethylsulfate
(sulfuric acid, dimethyl ester)
dinitrobenzene, N.O.S. (benzene, dinitro-, N.O.S.)
4,6-dinitro-o-cresol and salts
(phenol, 2,4-dinitro-6-methyl-, and salts)
2,4-dinitrophenol (phenol, 2,4-dinitro-)
2,4-dinitrotoluene (benzene, 1-methyl-2,4-dinitro-)
2,6-dinitrotoluene (benzene, 1-methyl-2,6-dinitro-)
di-n-octyl phthalate
(1,2-benzenedicarboxylic acid, dioctyl ester)
1,4-dioxane (1,4-diethylene oxide)
diphenylamine (benzenamine, N-phenyl-)
1,2-diphenylhydrazine (hydrazine, 1,2-diphenyl-)
di-n-propylnitrosamine (N-nitroso-di-n-propylamine)
disulfoton
(O,O-diethyl S-[2-(ethylthio)ethyl] phosphorodithioate
2,4-dithiobiuret (thioimidodicarbonic diamide)
endosulfan
(5-norbornene, 2,3-dimethanol, 1,4,5,6,7,7-hexachloro-,
cyclic sulfite)
endrin and metabolites
(1,2,3,4,10,10-hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-
octahydro-endo,endo-1,4:5,8-dimethanonaphthalene,
and metabolites)
ethyl carbamate
(urethan) (carbamic acid, ethyl ester)
ethyl cyanide (propanenitrile)
ethylenebisdithiocarbamic acid, salts and esters
(1,2-ethanediylbiscarbamodithioic acid, salts and esters)
ethyleneimine (aziridine)
ethylene oxide (oxirane)

ethylenethiourea (2-imidazolidinethione)
ethyl methacrylate (2-propenoic acid, 2-methyl-, ethyl ester)
ethyl methanesulfonate (methanesulfonic acid, ethyl ester)
fluoranthene (benzo[j,k]fluorene)
fluorine
2-fluoroacetamide (acetamide, 2-fluoro-)
fluoroacetic acid, sodium salt
    (acetic acid, fluoro-, sodium salt)
formaldehyde (methylene oxide)
formic acid (methanoic acid)
glycidylaldehyde (1-propanal, 2,3-epoxy-)
halomethane, N.O.S.
heptachlor
    (4,7-methano-1H-idene, 1,4,5,6,7,8,8-heptachloro-
    3a,4,7,7a-tetrahydro-)
heptachlor epoxide (alpha, beta and gamma isomers)
    (4,7-methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-
    2,3-epoxy-3a,4,7,7-tetrahydro-, alpha, beta and
    gamma isomers)
hexachlorobenzene (benzene, hexachloro-)
hexachlorobutadiene (1,3-butadiene, hexachloro-)
hexachlorocyclohexane (all isomers)
    (lindane and isomers)
hexachlorocyclopentadiene
    (cyclopentadiene, hexachloro-)
hexachlorodibenzo-p-dioxins
hexachlorodibenzofurans
hexachloroethane (ethane, hexachloro-)
1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-1,4:5,8-
    endo,endo-dimethanonaphthalene
    (hexachlorohexahydro-endo,endo-dimethanonaphthalene)
hexachlorophene
    (2,2'-methylenebis(3,4,6-trichlorophenol))
hexachloropropene (propene, hexachloro-)
hexaethyl tetraphosphate
    (tetraphosphoric acid, hexaethyl ester)
hydrazine (diamine)
hydrocyanic acid (hydrogen cyanide)
hydrofluoric acid (hydrogen fluoride)
hydrogen sulfide
hydroxydimethylarsine oxide (cacodylic acid)
indeno(1,2,3-cd) pyrene
    1,10-(1,2-phenylene)pyrene)
iodomethane (methyl iodide)
iron dextran (ferric dextran)
isocyanic acid, methyl ester (methyl isocyanate)
isobutyl alcohol (1-propanol, 2-methyl-)
isosafrole (benzene, 1,2-methylenedioxy-4-allyl-)

kepone
(decachlorooctahydro-1,3,4-metheno-2H-cyclobuta[cd]pentalen-2-one)
lasiocarpine
(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)
lead and compounds, N.O.S.
lead acetate (acetic acid, lead salt)
lead phosphate (phosphoric acid, lead salt)
lead subacetate (lead, bis(acetato-O)tetrahydroxytri-)
maleic anhydride (2,5-furandione)
maleic hydrazide (1,2-dihydro-3,6-pyridazinedione)
malononitrile (propanedinitrile)
melphalan
alanine, 3-[p-bis(2-chloroethyl)amino]phenyl-, L-)
mercury fulminate (fulminic acid, mercury salt)
mercury and compounds, N.O.S.
methacrylonitrile (2-propenenitrile, 2-methyl-)
methanethiol (thiomethanol)
methapyrilene
(pyridine, 2-[(2-dimethylamino)ethyl]-2-thenylamino-)
metholmyl
(acetimidic acid, N-[(methylcarbamoyl)oxy]thio-, methyl ester)
methoxychlor
(ethane, 1,1,1-trichloro-2,2'-bis(p-methoxyphenyl)-)
2-methylaziridine (1,2-propylenimine)
3-methylcholanthrene
(benz[j]aceanthrylene, 1,2-dihydro-3-methyl-)
methylchlorocarbonate
(carbanochloridic acid, methyl ester)
4,4'-methylenebis(2-chloroaniline)
4,4'-methylenebis(2-chlorobenzenamine))
methyl ethyl ketone (MEK) (2-butanone)
methyl hydrazine (hydrazine, methyl-)
2-methyllactonitrile (propanenitrile, 2-hydroxy-2-methyl-)
methyl methacrylate (2-propenoic acid, 2-methyl-, methyl ester)
methyl methanesulfonate (methanesulfonic acid, methyl ester)
2-methyl-2-(methylthio(propionaldehyde-O-(methylcarbonyl) oxime
(propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime)
N-methyl-N'-nitro-N-nitrosoguanidine
(guanidine, N-nitroso-N-methyl-N'-nitro-)
methyl parathion
(O,O-dimethyl O-(4-nitrophenyl) phosphorothioate)

methylthiouracil
(4-1H-pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-)
mustard gas (sulfide, bis(2-chloroethyl)-)
naphthalene
1,4-naphthoquinone (1,4-naphthalenedione)
1-naphthylamine (alpha-naphthylamine)
2-naphthylamine (beta-naphthylamine)
1-naphthyl-2-thiourea (thiourea, 1-naphthalenyl-)
nickel and compounds, N.O.S.
nickel carbonyl (nickel tetracarbonyl)
nickel cyanide (nickel (II) cyanide)
nicotine and salts
(pyridine, (S)-3-(1-methyl-2-pyrrolidinyl)-, and salts)
nitric oxide (nitrogen (II) oxide)
p-nitroaniline (benzenamine, 4-nitro-)
nitrobenzene (benzene, nitro-)
nitrogen dioxide (nitrogen (IV) oxide)
nitrogen mustard and hydrochloride salt
(ethanamine, 2-chloro-, N-(2-chloroethyl)-N-methyl-, and hydrochloride salt)
nitrogen mustard N-oxide and hydrochloride salt
(ethanamine, 2-chloro-, N-(2-chloroethyl)-N-methyl-, N-oxide, and hydrochloride salt)
nitroglycerin (1,2,3-propanetriol, trinitrate)
4-nitrophenol (phenol, 4-nitro-)
4-nitroquinoline-1-oxide (quinoline, 4-nitro-1-oxide-)
nitrosamine, N.O.S.
N-nitrosodi-n-butylamine (1-butanamine, N-butyl-N-nitroso-)
N-nitrosodiethanolamine (ethanol, 2,2'-(nitrosoimino)bis-)
N-nitrosodiethylamine (ethanamine, N-ethyl-N-nitroso-)
N-nitrosodimethylamine (dimethylnitrosamine)
N-nitroso-N-ethylurea (carbamide, N-ethyl-N-nitroso-)
N-nitrosomethylethylamine (ethanamine, N-methyl-N-nitroso-)
N-nitroso-N-methylurea (carbamide, N-methyl-N-nitroso-)
N-nitroso-N-methylurethane
(carbamic acid, methylnitroso-, ethyl ester)
N-nitrosomethylvinylamine
(ethenamine, N-methyl-N-nitroso-)
N-nitrosomorpholine (morpholine, N-nitroso-)
N-nitrosonornicotine (nornicotine, N-nitroso-)
N-nitrosopiperidine (pyridine, hexahydro-, N-nitroso-)
N-nitrosopyrrolidine (pyrrole, tetrahydro-, N-nitroso-)
N-nitrososarcosine (sarcosine, N-nitroso-)
5-nitro-o-toluidine (benzenamine, 2-methyl-5-nitro-)
octamethylpyrophosphoramide (diphosphoramide, octamethyl-)
osmium tetroxide (osmium (VIII) oxide)

7-oxabicyclo[2.2.1]heptane-2,3-dicarboxylic acid
(endothal)
paraldehyde
(1,3,5-trioxane, 2,4,6-trimethyl-)
parathion
(phosphorothioic acid, O,O-diethyl O-(p-nitrophenyl)
ester)
pentachlorobenzene (benzene, pentachloro-)
pentachlorodibenzo-p-dioxins
pentachlorodibenzofurans
pentachloroethane (ethane, pentachloro-)
pentachloronitrobenzene (PCNB)
(benzene, pentachloronitro-)
pentachlorophenol (phenol, pentachloro-)
phenacetin (acetamide, N-(4-ethoxyphenyl)-)
phenol (benzene, hydroxy-)
phenylenediamine (benzenediamine)
phenylmercury acetate (mercury, acetatophenyl-)
N-phenylthiourea (thiourea, phenyl-)
phosgene (carbonyl chloride)
phosphine (hydrogen phosphide)
phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester
(phorate)
phosphorothioic acid, O,O-dimethyl
O-[p-((dimethylamino)sulfonyl)phenyl] ester
(famphur)
phthalic acid esters, N.O.S.
(benzene, 1,2-dicarboxylic acid, esters, N.O.S.)
phthalic anhydride
(1,2-benzenedicarboxylic acid anhydride)
2-picoline (pyridine, 2-methyl-)
polychlorinated biphenyl, N.O.S.
potassium cyanide
potassium silver cyanide
(argentate(1-), dicyano-, potassium)
pronamide
(3,5-dichloro-N-(1,1-dimethyl-2-propynyl)benzamide)
1,3-propane sultone
(1,2-oxathiolane, 2,2-dioxide)
n-propylamine (1-propanamine)
propylthiouracil
(2,3-dihydro-6-propyl-2-thioxo-4(1H)-pyrimidinone)
2-propyn-1-ol (propargyl alcohol)
pyridine
reserpine
(yohimban-16-carboxylic acid, 11,17-dimethoxy-
18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester)

resorcinol (1,3-benzenediol)
saccharin and salts
(1,2-benzoisothiazolin-3-one, 1,1-dioxide, and salts)
safrole (benzene, 1,2-methylenedioxy-4-allyl-)
selenious acid (selenium dioxide)
selenium and compounds, N.O.S.
selenium sulfide (sulfur selenide)
selenourea (carbamimidoselenoic acid)
silver and compounds, N.O.S.
silver cyanide
sodium cyanide
streptozotocin
(D-glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-)
strontium sulfide
strychnine and salts (strychnidin-10-one, and salts)
1,2,4,5-tetrachlorobenzene (benzene, 1,2,4,5-tetrachloro-)
Tetrachlorodibenzo-p-dioxins
2,3,7,8-tetrachlorodibenzo-p-dioxin
(TCDD)
(dibenzo-p-dioxin, 2,3,7,8-tetrachloro-)
tetrachlorodibenzofurans
tetrachloroethane, N.O.S.
(ethane, tetrachloro-, N.O.S.)
1,1,1,2-tetrachloroethane (ethane, 1,1,1,2-tetrachloro-)
1,1,2,2-tetrachloroethane (ethane, 1,1,2,2-tetrachloro-)
tetrachloroethene (perchloroethylene)
tetrachloromethane (carbon tetrachloride)
2,3,4,6-tetrachlorophenol (phenol, 2,3,4,6-tetrachloro-)
tetraethyldithiopyrophosphate
(dithiopyrophosphoric acid, tetraethyl ester)
tetraethyl lead (plumbane, tetraethyl-)
tetraethylpyrophosphate (pyrophosphoric acid, tetraethyl ester)
tetranitromethane (methane, tetranitro-)
thallium and compounds, N.O.S.
thallic oxide (thallium (III) oxide)
thallium (I) acetate (acetic acid, thallium (I) salt)
thallium (I) carbonate (carbonic acid, dithallium (I) salt)
thallium (I) chloride
thallium (I) nitrate (nitric acid, thallium (I) salt)
thallium selenite
thallium (I) sulfate (sulfuric acid, thallium (I) salt)
thioacetamide (ethanethioamide)
thiosemicarbazide (hydrazinecarbothioamide)
thiourea (carbamide, thio-)
thiuram (bis(dimethylthiocarbamoyl) disulfide)
toluene (benzene, methyl-)
toluenediamine (diaminotoluene)

(toluene diisocyanate (benzene, 1,3-diisocyanatomethyl-)
o-toluidine hydrochloride
(benzeneamine, 2-methyl-, hydrochloride)
toxaphene (camphene, octachloro-)
tribromomethane (bromoform)
1,2,4-trichlorobenzene (benzene, 1,2,4-trichloro-)
1,1,1-trichloroethane (methyl chloroform)
1,1,2-trichloroethane (ethane, 1,1,2-trichloro-)
trichloroethene (trichloroethylene)
trichloromethanethiol (methanethiol, trichloro-)
trichloromonofluoromethane (methane, trichlorofluoro-)
2,4,5-trichlorophenol (phenol, 2,4,5-trichloro-)
2,4,6-trichlorophenol (phenol, 2,4,6-trichloro-)
2,4,5-trichlorophenoxyacetic acid (2,4,5-T)
(acetic acid, 2,4,5-trichlorophenoxy-)
2,4,5-trichlorophenoxypropionic acid (2,4,5-TP) (silvex)
(propionic acid, 2-(2,4,5-trichlorophenoxy)-)
trichloropropane, N.O.S.
(propane, trichloro-, N.O.S.)
1,2,3-trichloropropane
(propane, 1,2,3-trichloro-)
O,O,O-triethyl phosphorothioate
(phosphorothioic acid, O,O,O-triethyl ester)
sym-trinitrobenzene
(benzene, 1,3,5-trinitro-)
tris(1-aziridinyl) phosphine sulfide
(phosphine sulfide, tris(1-aziridinyl)-)
tris(2,3-dibromopropyl) phosphate
(1-propanol, 2,3-dibromo-, phosphate)
trypan blue
(2,7-naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl(1,1'-biphenyl)-4,4'-diyl)bis(azo)]bis(5-amino-4-hydroxy-, tetrasodium salt)
undecamethylenediamine, N,N'-bis(2-chlorobenzylamine), dihydrochloride
(N,N'-undecamethylenebis)2-chlorobenzylamine), dihydrochloride)
uracil mustard
(uracil, 5-[bis(2-chloroethyl)amino]-)
vanadic acid, ammonium salt (ammonium vanadate)
vanadium pentoxide (vanadium (V) oxide)
vinyl chloride (ethene, chloro-)
zinc cyanide
zinc phosphide

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

POLLUTION CONTROL BOARD

TEXT OF ADOPTED AMENDMENTS

Appendix I Methods of Analysis for Chlorinated Dibenzo-p-Dioxins and Dibenzofurans [1234] (Repealed)

Method 8280

1. Scope and Application

1.1 This method covers the determination of chlorinated dibenzo-p-dioxins and chlorinated dibenzofurans in chemical wastes including still bottoms, filter aids, sludges, spent carbon, and reactor residues, and in soils.

1.2 The sensitivity of this method is dependent upon the level of interferences.

1.3 This method is recommended for use only by analysts experienced with residue analysis and skilled in mass spectral analytical techniques.

1.4 Because of the extreme toxicity of these compounds the analyst must take necessary precautions to prevent exposure to himself, or to others, of materials known or believed to contain CDDs or CDFs.

2. Summary of the Method

2.1 This method is an analytical extraction cleanup procedure, and capillary column gas chromatography-low resolution mass spectrometry method, using capillary column

GC/MS conditions and internal standard techniques, which allow for the measurement of PCDDs and PCDFs in the extract.

2.2 If interferences are encountered, the method provides selected general purpose cleanup procedures to aid the analyst in their elimination.

3. Interferences

3.1 Solvent, reagents, glassware, and other sample processing hardware may yield discrete artifacts and/or elevated baselines causing misinterpretation of gas chromatograms. All of these materials must be demonstrated to be free from interferences under the conditions of the analysis by running method blanks. Specific selection of reagents and purification of solvents by distillation in all-glass systems may be required.

3.2 Interferences co-extracted from the samples will vary considerably from source to source, depending upon the diversity of the industry being sampled. PCDD is often associated with other interfering chlorinted compounds such as PCB's which may be at concentrations several orders of magnitude higher than that of PCDD. While general cleanup techniques are provided as part of this method, unique samples may require additonal cleanup approaches to achieve the sensitivity stated in Table 1.

3.3 The other isomers of tetrachlorodibenzo-p-dioxin may interfere with the measurement of 2, 3, 7, 8-TCDD. Capillary column gas chromatograph is required to resolve those isomers that yield virtually identical mass fragmentation patterns.

4. Apparatus and Materials

4.1 Sampling equipment for discrete or composite sampling.

4.1.1 Grab sample bottle--amber glass, 1-liter or 1-quart volume. French or Boston Round design is recommended. The container must be washed and solvent rinsed before use to minimize interferences.

4.1.2 Bottle caps--threaded to screw on to the sample bottles. Caps must be lined with Teflon. Solvent washed foil, used with the shiny side towards the sample, may be substituted for the Teflon if sample is not corrosive.

4.1.3 Compositing equipment--automatic or manual compositing system. No tygon or rubber tubing may be used, and the system must incorporate glass sample containers for the collection of a minimum of 250 ml. Sample containers must be kept refrigerated after sampling.

4.2 Water bath--heated, with concentric ring cover, capable of temperature control (+ 2° C). The bath should be used in a hood.

4.3 Gas chromatograph/mass spectrometer data system.

4.3.1 Gas chromatograph: An analytical system with a temperature-programmable gas chromatograph and all required accessories including syringes, analytical columns, and gases.

4.3.2 Column: SP-2250 coated on a 30 m long x 0.25 mm I.D. glass column (Supelco No. 2-3714 or equivalent). Glass capillary column conditions: Helium carrier gas at 30 cm/sec linear velocity run splitless. Column temperature is 210° C.

4.3.3 Mass spectrometer: Capable of scanning from 35 to 450 amu every 1 sec or less, utilizing 70 volts (nominal) electron energy in the electron impact ionization mode and producing a mass spectrum which meets all the criteria in Table B when 50 ng of decafluorotriphenyl-phosphine (DFTPP) is injected through the GC inlet. The system must also be capable of ion monitoring (SIM) for at least 4 ions simultaneously, with a cycle time of 1 sec or less. Minimum integration time for SIM is 100 ms. Selected ion monitoring is verified by injecting .015 ng of TCDD Cl ^{37} to give a minimum signal to noise ratio of 5 to 1 at mass 328 320.

4.3.4 GC/MS interface: Any GC-to-MS interface that gives acceptable calibration points at 50 ng per injection for each compound of interest and achieves acceptable tuning performance criteria (see Sections 6.1-6.3) may be used. GC-to-MS interfaces constructed of all glass or glass-lined materials are recommended. Glass can be deactivated by silanizing with dichlorodimethylsilane. The interface must be capable of transporting at least 10 ng of the components of interest from the GC to the MS.

4.3.5 Data system: A computer system must be interfaced to the mass spectrometer. The system must allow the continuous acquisition and storage on machine-readable media of all mass spectra obtained throughout the duration of the chromatographic program. The computer must have software that can search any GC/MS data file for ions of a specific mass and that can plot such ion abundances versus time or scan number. This type of plot is defined as an Extracted Ion Current Profile (EICP). Software must also be able to integrate the abundance, in any EICP, between specified time or scan number limits.

4.4 Pipettes-Disposable, Pasteur, 150 mm long x 5 mm ID (Fisher Scientific Co., No. 13-678-6A or equivalent).

4.5 Flint glass bottle (Teflon-lined screw cap).

4.6 Reacti-vial (silanized) (Pierce Chemical Co.).

5. Reagents

5.1 Potassium hydroxide-(ACS), 2 percent in distilled water.

5.2 Sulfuric acid-(ACS), concentrated.

5.3 Methylene chloride, hexane, benzene, petroleum ether, methanol, tetradecane-pesticide quality or equivalent.

5.4 Stock standards in a glovebox, prepare stock standard solutions of TCDD and ^{37}Cl-TCDD (molecular weight 328). The stock solutions are stored in a glovebox, and checked frequently for signs of degradation or evaporation, especially just prior to the preparation of working standards.

5.5 Alumina-basic, Woelm, 80/200 mesh. Before use activate overnight at 600°C, cool to room temperature in a dessicator.

5.6 Prepurified nitrogen gas.

6.0 Calibration

6.1 Before using any cleanup procedure, the analyst must process a series of calibration standards through the procedure to validate elution patterns and the absence of interferences from reagents.

6.2 Prepare GC/MS calibration standards for the internal standard technique that will allow for measurement of relative response ^{37} factors of at least three TCDD/ Cl-TCDD and TCDF/ ^{37}Cl-TCDF ^{5} ratios. The ^{37}Cl-TCDD/F concentration in the standard should be fixed and selected to yield a reproducible response at the most sensitive setting of the mass spectrometer.

6.3 Assemble the necessary GC/MS apparatus and establish operating parameters equivalent to those indicated in Section 11.1 of this method. Calibrate the GC/MS system according to Eichelberger, et al. (1975) by the use of decafluorotriphenyl phosphine (DFTPP). By injecting calibration standards, establish the response factors for ^{37} CDDs vs. Cl-TCDF. The detection limit provided in Table A ^{37}

should be verified by injecting .015 ng of Cl-TCDD which should give a minimum signal to noise ratio of 5 to 1 at mass 320.

7. Quality Control

7.1 Before processing any samples, the analyst should demonstrate through the analysis of a distilled water method blank, that all glassware and reagents are interference-free. Each time a set of samples is extracted or there is a change in reagents, a method blank should be processed as a safeguard against laboratory contamination.

7.2 Standard quality assurance practices must be used with this method. Field replicates must be collected to validate the precision of the sampling technique. Laboratory replicates must be analyzed to validate the precision of the analysis. Fortified samples must be analyzed to establish the accuracy of the analysis.

8. Sample Collection, Preservation, and Handling

8.1 Grab and composite samples must be collected in glass containers. Conventional sampling practices should be followed, except that the bottle must not be prewashed with sample before collection. Composite samples should be collected in glass containers in accordance with the requirements of the RCRA program. Sampling equipment must be free of tygon and other potential sources of contamination.

8.2 The samples must be iced or refrigated from the time of collection until extraction. Chemical preservatives shold not be used in the field unless more than 24 hours will elapse before delivery to the laboratory. If an aqueous sample is taken and the sample will not be extracted within 49 hours of collection, the sample should be adjusted to a pH range of 6.0-8.0 with sodium hydroxide or sulfuric acid.

8.3 All samples must be extracted within 7 days and completely analyzed within 30 days of collection.

9. Extraction and Cleanup Procedures

9.1 use an aliquot of 1-10 g sample of the chemical waste or soil to be analyzed. Soils should be dried using a stream of prepurified nitrogen and pulverized in a ball-mill

or similar device. Transfer the sample to a tared 125 ml Flint glass bottle (Teflon-line screw cap) and determine the weight of the sample. Add an appropriate quantity of ^{37} Cl-labelled 2, 3, 7, 8-TCDD (adjust the quantity according to the required minimum detectable concentration), which is employed as an internal standard.

9.2 Extraction

9.2.1 Extract chemical waste samples by adding 10 ml methanol, 40 ml petroleum ether, 50 ml doubly distilled water, and then shaking the mixture for 2 minutes. Tars should be completely dissolved in any of the recommended neat solvents. Activated carbon samples must be extracted with benzene using method 3540 in SW-846 (Test Methods for Evaluating Solid Waste--Physical/Chemical Methods, available from G.P.O. Stock #955-002-81001-2). Quantitatively transfer the organic extract or dissolved sample to a clean 250 ml flint glass bottle (Teflon lined screw cap), add 50 ml doubly distilled water and shake for 2 minutes. Discard the aqueous layer and proceed with Step 9.3.

9.2.2 Extract soil samples by adding 40 ml of petroleum ether to the samples, and then shaking for 20 minutes. Quantitatively transfer the organic extract to a clean 250 ml flint glass bottle (Teflon-lined screw cap), add 50 ml doubly distilled water and shake for 2 minutes. Discard the aqueous layer and proceed with Step 9.3

9.3 Wash the organic layer with 50 ml of 20% aqueous potassium hydroxide by shaking for 10 minutes and then remove and discard the aqueous layer.

9.4 Wash the organic layer with 50 ml of doubly distilled water by shaking for 2 minutes and discard the aqueous layer.

9.5 Cautiously add 50 ml concentrated sulfuric acid and shake for 10 minutes. Allow the mixture to stand until layers separate (approximately 10 minutes), and remove and discard the acid layer. Repeat acid washing until no color is visible in the acid layer.

9.6 Add 50 ml of doubly distilled water to the organic extract and shake for 2 minutes. Remove and discard the aqueous layer and dry the organic layer by adding 10g of anhydrous sodium sulfate.

9.7 Concentrate the extract to incipient dryness by heating in a 50º C water bath and simultaneously flowing a stream of prepurified nitrogen over the extract. Quantitatively transfer the reside to an alumina microcolumn fabricated as follows:

9.7.1 Cut off the top section of a 10 ml disposable Pyrex pipette at the 4.0 ml mark and insert a plug of silanized glass wool into the tip of the lower portion of the pipette.

9.7.2 Add 2.8g of Woelm basic alumina (previously activated at 600º C overnight and then cooled to room temperature in a desiccator just prior to use).

9.8 Elute the microcolumn with 10 ml of 3%methylene chloride-in-hexane followed by 15 ml of 20% methylene chloride-in-hexane and discard these effluents. Elute the column with 15 ml of 50% methylene chloride-in-hexane and concentrate this effluent (55º C water bath, stream of prepurified nitogren) to about 0.3-0.5 ml.

9.9 Quantitatively transfer the residue (using methylene chloride to rinse the container) to a silanized Reacti-Vial (Pierce Chemical Co.). Evaporate, using a stream of prepurified nitrogen, almost to dryness, rinse the walls of the vessel with approximately 0.5 ml methylene chloride, evaporate just to dryness, and tighly cap the vial. Store the vial at 5ºC until analysis, at which time the sample is reconstituted by the addition of tridecane.

9.10 Approximately 1 hour before GC-MS (HRGC-LRMS) analysis, dilute the residue in the micro-reaction vessel with an appropriate quantity of tridecane. Gently swirl the tridecane on the lower portion of the vessel to ensure dissolution of the CDDs and CDFs. Analyze a sample by GC/EC to provide insight into the complexity of the problem, and to determine the manner in which the mass spectrometer should be used. Inject an appropriate aliquot of the sample into the GC-MS instrument, using a syringe.

9.11 If, upon preliminary GC-MS analysis, the sample appears to contain interfering substances which obscure the analyses for CDDs and CDFs, high performance liquid chromatographic (HPLC) cleanup of the extract is accomplished, prior to further GC-MS analysis.

10. HPLC Cleanup Proceedure

10.1 Place approximately 2 ml of hexane in a 50 ml flint glass sample bottle fitted with a Teflon-lined cap.

10.2 At the appropriate retention time, position sample bottle to collect the required fraction.

10.3 Add 2 ml of 5% (w/w) sodium carbonate to the sample fractin collected and shake for one minute.

10.4 Quantitatively remove the hexane layer (top layer) and transfer to a micro-reaction vessel.

10.5 Concentrate the fraction to dryness and retain for further analysis.

11. GC/MS Analysis

11.1 The following column conditions are recommended: Glass capillary column conditions: SP-2250 coated on a 30 cm long x 0.25 mm I.D. glass column (Supelco No. 2-3714, or equivalent) with helium carrier gas at 30 cm/sec linear velocity, run splitless. Column temperature is 210°C. Under these conditions the retention time for TCDDs is about 9.5 minutes. Calibrate the system daily with, a minimum, three injections of standard mixtures.

11.2 Calculate response factors for standards relative to ^{37}Cl-TCDD/F (see Section 12).

11.3 Analyze samples with selected ion monitoring of at least two ions from Table C. Proof of the presence of CDD or CDF exists if the following conditions are met:

11.3.1 The retention time of the peak in the sample must match that in the standard, within the performance specifications of the analytical system.

11.3.2 The ratio of ions must agree within 10% with that of the standard.

11.3.3 The retention time of the peak maximum for the ions of interest must exactly match that of the peak.

11.4 Quantitate the CDD and CDF peaks from the response relative to the ^{37}Cl-TCDD/F internal standards. Recovery of the internal standard should be greater than 50 percent.

11.5 If a response is obtained for the appropriate set of ions, but is outside the expected ratio, a co-eluting impurity may be suspected. In this case, another set of ions characteristic of the CDD/CDF molecules should be analyzed. For TCDD a good choice of ions is m/e 257 and m/e 259. For TCDF a good choice of ions is m/e 241 and 243. These ions are useful in characterizing the molecular structure of TCDD or TCDF. For analysis of TCDD good analytical technique would require using all four ions, m/e 257, 320, 322, 328, to verify detection and signal to noise ratio of 5 to 1. Suspected impurities such as DDE, DDD, or PCB residues can be confirmed by checking for their major fragments. These materials can be removed by the clean-up columns. Failure to meet criteria should be explained in the report or the sample reanalyzed.

11.6 If broad background interference restricts the sensitivity of the GC/MS analysis, the analyst should employ clean-up procedures and reanalyze by GC/MS.

11.7 In those circumstances where these procedures do not yield definitive conclusion, the use of high resolution mass spectrometry is suggested.

12. Calculations

12.1 Determine the concentration of individual compounds according to the formula:

$$\text{Final Concentration, ng/gm} = \frac{A \times {}^{s}A_{is} \times R_f}{G}$$

Where:

A = ug of internal standard added to the sample.[6]
G = gm of sample extracted.
A_s = area of characteristic ion of the compound being quantified.
A_{is} = area of characteristic ion of the internal standard.
R_f = response factor.

Response factors are calculated using data obtained from the analysis of standards according to the formula:

$$R_f = \frac{A_s}{C_{is}}$$

$$\Sigma n \Sigma R \Sigma = \Sigma x \Sigma A_{is} \times C_s$$

Where:

C_{is} = Concentration of the internal standard,

C_s = concentration of the standard compound,

12.2 Report results in micrograms per gram without correction for recovery data. When duplicate and spiked samples are analyzed, all data obtained should be reported.

12.3 Accuracy and Precision. No data are available at this time.

[1]This method is appropriate for the analysis of tetra-penta-, and hexachlorinated dibenzo-p-dioxins and -dibenzofurans.

[2]Analytical protocol for determination of TCDDs in phenolic chemical wastes and soil samples obtained from the proximity of chemical dumps. T. O. Tiernan and M. Taylor, Brehm Laboratory, Wright State University, Dayton, OH 45435.

[3]Analytical protocol for determination of chlorinated dibenzo-p-dioxins and chlorinated debenzofurans in river water. T. O. Tiernan and M. Taylor, Brehm Laboratory, Wright State University, Dayton, OH 45435.

[4]In general, the techniques that should be used to handle these materials are those which are followed for radioactive or infectious laboratory materials. Assistance in evaluating laboratory practices may be obtained from industrial hygienists and persons specializing in safe laboratory practice. Typical infectious waste incinerators are probably not satisfactory devices for disposal of materials highly contaminated with CDDs or CDFs. A laboratory planning to use these compounds should prepare a disposal plan to be reviewed and approved by EPA's Dioxin Task Force (Contact Conrad Kleveno, WH-548A, U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460).

5 37
Cl-labelled TCDD and TCDF are available from K.O.R. Isotopes, Cambridge, MA. Proper standardization requires the use of a specific labelled isomer for each congener to be determined. However, the only labelled isomers readily available are ^{37}Cl-2, 3, 7, 8-TCDD and ^{37}Cl-2, 3, 7, 8-TCDF. This method therefore

Appendix Z Table to Section 721.102

Table	*1	*2	*3	*4
Spent materials (both listed and nonlisted/ characteristics	Yes	Yes	Yes	Yes
Sludges (listed)	Yes	Yes	Yes	Yes
Sludges (nonlisted/ characteristics)	Yes	Yes	No	Yes
By-products (listed)	Yes	Yes	Yes	Yes
By-products (nonlisted/ characteristic)	Yes	Yes	No	Yes
Commercial chemical products listed in that are not ordinarily applied to the land or burned as fuels	Yes	Yes	No	No
Scrap metal	Yes	Yes	Yes	Yes

Yes - Defined as a solid waste
No - Not defined as a solid waste

*1 - Use constituting disposal
*2 - Burning for energy recovery or use to produce a fuel
*3 - Reclamation
*4 - Speculative accumulation

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

uses these isomers as surrogates for the CDDs and CDFs. When labelled CDDs and CDFs are available, their use will be required.

[6]The proper amount of standard to be used is determined from the calibration curve (see Section 6.0).

(Source: Repealed at Ill. Reg. , effective)

TABLE A Gas Chromatography of TCDD (Repealed)

Column	Retention time (min.)	Detection limit (ug/kg)[1]
Glass Capillary	9.5	0.003

[1]Detection limit for liquid samples is 0.0003 ug/l. This is calculated from the minimum detectable GC response being equal to five times the GC background noise assuming a 1 ml effective final volume of the 1 liter sample extract and a GC injection of 5 microliters. Detection levels apply to both electron capture and GC/MS detection. For further details see 44 FR 69526 (December 3, 1979).

(Source: Repealed at Ill. Reg. , effective)

TABLE B DFTPP Key Ions and Ion Abundance Criteria[1] (Repealed)

Mass	Ion abundance criteria
51	30 to 60 percent of mass 198
68	Less than 2 percent of mass 69
70	Do.
127	40 to 60 percent of mass 198
197	Less than 1 percent of mass 198
198	Base peak, 100 percent relative abundance
199	5 to 9 percent of mass 198
275	10 to 30 percent of mass 198
365	Greater than 1 percent of mass 198
441	Present but less than mass 443
442	Greater than 40 percent of mass 198
443	17 to 23 percent of mass 442

[1]J.W. Eichelberger, L.E. Harris and W.L. Budde 1975. Reference compound to calibrate ion abundance measurement in gass chromatography-mass spectrometry. Analytical Chemistry 47:995

(Source: Repealed at Ill. Reg. , effective)

TABLE C List of Accurate Masses Monitored Using GC Selected-Ion Monitoring, Low Resolution, Mass Spectrometry for Simulataneous Determination of Tetra-, Penta-, and Hexachlorinated Dibenzo-p-Dioxins and Dibenzofurans (Repealed)

#1	#2	#3	#4	#5
Tetra	4	[1]319.897	[1]303.902	0.74
		321.894	321.899	1.00
		[2]327.885		
		[3]256.933	.21	
		[3]258.930	.20	
Penta	5	[1]353.858	[1]337.863	.57
		355.855	339.860	1.00
Hexa	6	389.816	373.821	1.00
		391.813	375.818	.87

[1]Molecular ion peak
[2]C_4 labelled standard peaks
[3]Ions which can be monitored in TCDD analyses for confirmation purposes.

(Source: Repealed at Ill. Reg. , effective)

POLLUTION CONTROL BOARD

TEXT OF ADOPTED AMENDMENTS

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: SPECIAL CONDITIONS

Appendix A Form-Annual Report (EPA Form 8700-13) (Repealed)

AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1983, 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 Ill. Reg. , effective

SUBPART C: PRE-TRANSPORTATION REQUIREMENTS

Section 722.134 Accumulation Time

a) 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 Subpart I of 35 Ill. Adm. Code 725 or the waste is placed in tanks and the generator complies with Subpart J of 35 Ill. Adm. Code 725 except 35 Ill. Adm. Code 725.293;

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 Subparts C and D in 35 Ill. Adm. Code 725 and with 35 Ill. Adm. Code 725.116.

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 he has been granted an extension of the 90-day period. Such extension may be

granted by the Agency if hazardous wastes must remain on-site for longer than 90 days due to unforeseen, temporary, and uncontrollable circumstances. An extension of up to 30 days may be granted at the discretion of the Agency on a case-by-case basis.

c) 1) A generator may accumulate as much as 55 gallons of hazardous wast 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 he:

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

B) marks his 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 paragraph (c)(1) at or near any point of generation must, with respect to that amount of excess waste, comply within three days with paragraph (a) or other applicable provisions of this chapter. During the three day period the generator must continue to comply with paragraphs (c)(1). The generator must mark the container holding the excess accumulation of hazardous waste with the date the excess amount began accumulating.

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

POLLUTION CONTROL BOARD

TEXT OF ADOPTED AMENDMENTS

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: GROUND-WATER PROTECTION

SUBPART G: CLOSURE AND POST-CLOSURE

SUBPART K: SURFACE IMPOUNDMENTS

Section
724.320 Applicability
724.321 Design and Operating Requirements
724.322 Double-lined Surface Impoundments: Exemption from Subpart F: Ground-water Protection Requirements
724.326 Monitoring and Inspection
724.327 Emergency Repairs; Contingency Plans
724.328 Closure and Post-Closure Care
724.329 Special Requirements for Ignitable or Reactive Waste
724.330 Special Requirements for Incompatible Wastes
724.331 Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026 and F027

SUBPART L: WASTE PILES

Section
724.350 Applicability
724.351 Design and Operating Requirements
724.352 Double-lined Piles: Exemption from Subpart F: Ground-water Protection Requirements
724.353 Inspection of Liners: Exemption from Subpart F: Ground-water Protection Requirements
724.354 Monitoring and Inspection
724.356 Special Requirements for Ignitable or Reactive Waste
724.357 Special Requirements for Incompatible Wastes
724.358 Closure and Post-Closure Care
724.359 Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026 and F027

SUBPART M: LAND TREATMENT

Section
724.370 Applicability
724.371 Treatment Program
724.372 Treatment Demonstration
724.373 Design and Operating Requirements
724.376 Food-chain Crops
724.378 Unsaturated Zone Monitoring
724.379 Recordkeeping
724.380 Closure and Post-Closure Care
724.381 Special Requirements for Ignitable or Reactive Waste
724.382 Special Requirements for Incompatible Wastes
724.383 Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026 and F027

POLLUTION CONTROL BOARD

TEXT OF ADOPTED AMENDMENTS

SUBPART N: LANDFILLS

Section
724.400 Applicability
724.401 Design and Operating Requirements
724.402 Double-lined Landfills: Exemption from Subpart F: Ground-water Protection Requirements
724.403 Monitoring and Inspection
724.409 Surveying and Recordkeeping
724.410 Closure and Post-Closure Care
724.412 Special Requirements for Ignitable or Reactive Waste
724.413 Special Requirements for Incompatible Wastes
724.414 Special Requirements for ~~Liquid~~ Waste Bulk and Containerized Liquids
724.415 Special Requirements for Containers
724.416 Disposal of Small Containers of Hazardous Waste in Overpacked Drums (Lab Packs)
724.417 Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026 and F027

SUBPART O: INCINERATORS

Section
724.440 Applicability
724.441 Waste Analysis
724.442 Principal Organic Hazardous Constituents (POHCs)
724.443 Performance Standards
724.444 Hazardous Waste Incinerator Permits
724.445 Operating Requirements
724.447 Monitoring and Inspections
724.451 Closure

Appendix A Recordkeeping Instructions
Appendix B EPA Report Form and Instructions (Repealed)
Appendix D Cochran's Approximation to the Behrens-Fisher Student's t-test
Appendix E Examples of Potentially Incompatible Waste

AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1983, ch. 111 1/2, pars. 1022.4 and 1027).

SOURCE: Adopted in R82-19 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 Ill. Reg. effective

POLLUTION CONTROL BOARD

TEXT OF ADOPTED AMENDMENTS

SUBPART A: GENERAL PROVISIONS

Section 724.101 Purpose, Scope and Applicability

a) The purpose of this Part is to establish minimum standards which define the acceptable management of hazardous waste.

b) The standards in this Part apply to owners and operators of all facilities which treat, store or dispose of hazardous waste, except as specifically provided otherwise in this Part or 35 Ill. Adm. Code 721.

c) The requirements of this Part apply to 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) only to the extent they are included in a RCRA permit by rule granted to such a person under 35 Ill. Adm. Code 703.141. A "RCRA permit" is a permit required by Section 21(f) of the Environmental Protection Act and 35 Ill. Adm. Code 703.121.

(Board Note: This Part does apply to the treatment or storage of hazardous waste before it is loaded onto an ocean vessel for incineration or disposal at sea.)

d) The requirements of this Part apply to a person disposing of hazardous waste by means of underground injection subject to a permit issued by the Agency pursuant to Section 12(g) of the Environmental Protection Act only to the extent they are required by 35 Ill. Adm. Code 704.Subpart F.

(Board Note: This Part does apply to the above-ground treatment or storage of hazardous waste before it is injected underground.)

e) The requirements of this Part apply to the owner or operator of a POTW (publicly owned treatment works) which treats, stores or disposes of hazardous waste only to the extent included in a RCRA permit by rule granted to such a person under 35 Ill. Adm. Code 703.141.

f) The requirements of this Part do not apply to:

1) The owner or operator of a facility permitted by the Agency under Section 21 of the Environmental Protection Act 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;

(Board Note: The owner or operator may be subject to 35 Ill. Adm. Code 807 and may have to have a supplemental permit under 35 Ill. Adm. Code 807.210.)

2) 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); ~~which treats or stores hazardous waste, which treatment or storage meets the criteria in 35 Ill. Adm. Code 721.106(a), except to the extent that 35 Ill. Adm. Code 721.106(b) provides otherwise;~~

3) A generator accumulating waste on-site in compliance with 35 Ill. Adm. Code 722.134;

4) A farmer disposing of waste pesticides from his own use in compliance with 35 Ill. Adm. Code 722.151; or

5) The owner or operator of a totally enclosed treatment facility, as defined in 35 Ill. Adm. Code 720.110;

6) The owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in 35 Ill. Adm. Code 720.110;

8)

A) Except as provided in paragraph (f)(8)(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 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 paragraph (f)(8)(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.

9) 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.

10) The addition of absorbent materials to waste in a container (as defined in 35 Ill. Adm. Code 720) or the addition of waste to absorbent material in a container, provided these actions occur at the time waste is first placed in the container; and Sections 724.117(b), 724.271 and 724.272 are complied with.

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

SUBPART B: GENERAL FACILITY STANDARDS

Section 724.113 General Waste Analysis

a)

1) Before an owner or operator treats, stores or disposes of any hazardous waste, it must 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 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 paragraph (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 paragraph (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 has changed; and

B) For off-site facilities, when the results of the inspection required in paragraph (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 must 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 must develop and follow a written waste analysis plan which describes the procedures which

it will carry out to comply with paragraph (a). The owner or operator must keep this plan at the facility. At a minimum, the plan must specify:

1) The parameters for which each hazardous waste 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 paragraph (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; and

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.

c) For off-site facilities, the waste analysis plan required in paragraph (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 Ill. Reg. , effective)

SUBPART E: MANIFEST SYSTEM, RECORDKEEPING AND REPORTING

Section 724.173 Operating Record

a) The owner or operator must 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(s) and date(s) 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;

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 where required by Sections 724.326, 724.353, 724.354, 724.376, 724.378, 724.380, 724.403, 724.409 or 724.447.

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.

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

SUBPART I: USE AND MANAGEMENT OF CONTAINERS

Section 724.275 Containment

a) Container storage areas must have a containment system that is designed and operated in accordance with paragraph (b), except as otherwise provided by paragraph (c).

b) A containment system must be designed and operated as follows:

1) A base must underlay the containers which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills and accumulated precipitation until the collected material is detected and removed.

2) The base must be sloped or the containment system must be otherwise designed and operated to drain

and remove liquids resulting from leaks, spills or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids;

3) The containment system must have sufficient capacity to contain 10% of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination;

4) Run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in paragraph (b)(3) to contain any run-on which might enter the system; and

5) Spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.

(Board Note: If the collected material is a hazardous waste, it must be managed as a hazardous waste in accordance with all applicable requirements. If the collected material is discharged through a point source to waters of the State, it is subject to the National Pollution Discharge Elimination System (NPDES) permit requirement of Section 12(f) of the Environmental Protection Act and 35 Ill. Adm. Code 309.102).

c) Storage areas that store containers holding only wastes that do not contain free liquids need not have a containment system defined by paragraph (b) except as provided by paragraph (d) or provided that:

1) The storage area is sloped or is otherwise designed and operated to drain and remove liquid resulting from precipitation, or

2) The containers are elevated or are otherwise protected from contact with accumulated liquid.

d) Storage areas that store containers holding the wastes listed below that do not contain free liquids must have a containment system defined by paragraph (b): F020, F021, F022, F023, F026 and F027.

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

SUBPART J: TANKS

Section 724.294 Inspections

a) The owner or operator must inspect:

1) Overfilling control equipment (e.g., waste feed cut-off systems and by-pass systems) at least once each operating day to ensure that it is in good working order;

2) Data gathered from monitoring equipment (e.g., pressure and temperature gauges) where present, at least once each operating day to ensure that the tank is being operated according to its design;

3) For uncovered tanks, the level of waste in the tank, at least once each operating day, to ensure compliance with Section 724.292(b)(2);

4) The construction materials of the above-ground portions of the tank, at least weekly to detect corrosion or erosion and leaking of fixtures and seams; and

5) The area immediately surrounding the tank, at least weekly, to detect obvious signs of leakage (e.g., wet spots or dead vegetation).

b) As part of the inspection schedule required in Section 724.115(b) and in addition to the specific requirements of paragraph (a), the owner or operator must develop a schedule and procedure for assessing the condition of the tank. The schedule and procedure must be adequate to detect cracks, leaks, corrosion or erosion which may lead to cracks or leaks, or wall thinning to less than the thickness required under Section 724.291. Procedures for emptying a tank to allow entry and inspection of the interior must be established when

necessary to detect corrosion or erosion of the tank sides and bottom. The frequency of these assessments must be based on the material of construction of the tank, type of corrosion or erosion protection used, rate of corrosion or erosion observed during previous inspections and the characteristics of the waste being treated or stored.

c) 1) As part of the contingency plan required under Subpart D, the owner or operator must specify the procedures for use to respond to tank spills or leakage, including procedures and timing for expeditious removal of leaked or spilled waste and repair of the tank.

(Board Note: As required in Section 724.115(c), the owner or operator must remedy any leak, crack or wall thinning in violation of Section 724.291, or equipment or process malfunction in violation of Section 724.291, or equipment or process malfunction in violation of Section 724.292, which are discovered during inspection. See 29 CFR 1910.94(d)(11) for Occupational Safety and Health Administration requirements relating to entry of tanks for inspection.)

2) For hazardous wastes numbers F020, F021, F022, F023, F026 and F027, the contingency plan must also include the procedures for responding to a spill or leak of these wastes from tanks into a containment system. These procedures must include measures for immediate removal of the waste from the system and replacement or repair of the leaking tank.

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

Section 724.300 Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026 and F027

In addition to the other requirements of this Subpart, the following Requirements apply to tanks storing or treating hazardous wastes F020, F021, F022, F023, F026 and F027.

a) Tanks must have systems designed and operated to detect and adequately contain spills or leaks. The design and operation of any containment system must

reflect consideration of all relevant factors, including:

1) Capacity of the tank;

2) Volumes and characteristics of wastes stored or treated in the tank;

3) Method of collection of spills or leaks;

4) The design and construction materials of the tank and containment system; and

5) The need to prevent precipitation and run-on from entering into the system.

b) As part of the contingency plan required by Subpart D, the owner or operator shall specify such procedures for responding to a spill or leak from the tank into the containment system as may be necessary to protect human health and the environment. These procedures must include measures for immediate removal of the waste from the system and replacement or repair of the leaking tank.

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

SUBPART K: SURFACE IMPOUNDMENTS

Section 724.331 Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026 and F027

a) Hazardous Wastes F020, F021, F022, F023, F026 and F027 must not be placed in a surface impoundment unless the owner or operator operates the surface impoundment in accordance with a management plan for these wastes that is approved by the Agency pursuant to the standards set out in this paragraph, and in accord with all other applicable requirements of this Part. The factors to be considered are:

1) The volume, physical and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere.

2) The attenuative properties of underlying and surrounding soils or other materials;

3) The mobilizing properties of other materials co-disposed with these wastes; and

4) The effectiveness of additional treatment, design or monitoring techniques.

b) The Agency may determine that additional design, operating and monitoring requirements are necessary for surface impoundments managing hazardous wastes F020, F021, F022, F023, F026 and F027 in order to reduce the possibility of migration of these wastes to ground water, surface water or air so as to protect human health and the environment.

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

SUBPART L: WASTE PILES

Section 724.359 Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026 and F027

a) Hazardous Wastes F020, F021, F022, F023, F026 and F027 must not be placed in waste piles that are not enclosed (as defined in Section 724.350(c)) unless the owner or operator operates the waste pile in accordance with a management plan for these wastes that is approved by the Agency pursuant to the standards set out in this paragraph, and in accord with all other applicable requirements of this Part. The factors to be considered are:

1) The volume, physical and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

2) The attenuative properties of underlying and surrounding soils or other materials;

3) The mobilizing properties of other materials co-disposed with these wastes; and

4) The effectiveness of additional treatment, design or monitoring techniques.

b) The Agency may determine that additional design, operating and monitoring requirements are necessary for piles managing hazardous wastes F020, F021, F022, F023, F026 and F027 in order to reduce the possibility of migration of these wastes to ground-water, surface water or air so as to protect human health and the environment.

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

SUBPART M: LAND TREATMENT

Section 724.383 Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026 and F027

a) Hazardous Wastes F020, F021, F022, F023, F026 and F027 must not be placed in a land treatment unit unless the owner or operator operates the facility in accordance with a management plan for these wastes that is approved by the Agency pursuant to the standards set out in this paragraph, and in accord with all other applicable requirements of this Part. The factors to be considered are:

1) The volume, physical and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

2) The attenuative properties of underlying and surrounding soils or other materials;

3) The mobilizing properties of other materials co-disposed with these wastes; and

4) The effectiveness of additional treatment, design or monitoring techniques.

b) The Agency may determine that additional design, operating and monitoring requirements are necessary for land treatment facilities managing hazardous wastes F020, F021, F022, F023, F026 and F027 in order to reduce the possibility of migration of these wastes to ground-water, surface water or air so as to protect human health and the environment.

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

POLLUTION CONTROL BOARD

TEXT OF ADOPTED AMENDMENTS

SUBPART N: LANDFILLS

Section 724.414 Special Requirements for ~~Liquid Waste~~ Bulk and Containerized Liquids

a) Bulk or non-containerized liquid waste or waste containing free liquids must not be placed in a landfill unless;

1) The landfill has a liner and leachate collection and removal system that meet the requirement of Section 724.401(a); or

2) Before disposal, the liquid waste or waste containing free liquids is treated or stabilized, chemically or physically (e.g., by mixing with an absorbent solid), so that free liquids are no longer present.

b) Containers holding free liquids must not be placed in a landfill unless;

1) All free-standing liquid:

A) has been removed by decanting or other methods;

B) has been mixed with absorbent or solidified so that free-standing liquid is no longer observed; or

C) has been otherwise eliminated; or

2) The container is very small, such as an ampule; or

3) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

4) The container is a lab pack as defined in Section 724.416 and is disposed of in accordance with Section 724.416.

c) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid

Wastes, Physical/Chemical Methods." (EPA Publication No. SW-846, incorporated by reference in 35 Ill. Adm. Code 721.111.

d) Disposal of liquid wastes or wastes containing free liquids otherwise allowed under this Section must be authorized pursuant to 35 Ill. Adm. Code 709.401(a). As required by 35 Ill. Adm. Code 709.520(c), the Agency must require the addition of absorbents to any such waste, any provision of this Section notwithstanding.

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

Section 724.417 Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026 and F027

a) Hazardous wastes F020, F021, F022, F023, F026 and F027 must not be placed in a landfill unless the owner or operator operates the landfill in accord with a management plan for these wastes that is approved by the Agency pursuant to the standards set out in this paragraph, and in accord with all other applicable requirements of this Part. The factors to be considered are:

1) The volume, physical and chemical characteristics of the wastes, including their potential to migrate through the soil or to volatilie or escape into the atmosphere;

2) The attenuative properties of underlying and surrounding soils or other materials;

3) The mobilizing properties of other materials co-disposed with these wastes; and

4) The effectiveness of additional treatment, design or monitoring requirements.

b) The Agency may determine that additional design, operating and monitoring requirements are necessary for landfills managing hazardous wastes F020, F021, F022, F023, F026 and F027 in order to reduce the possibility of migration of these wastes to ground-water, surface water or air so as to protect human health and the environment.

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

SUBPART O: INCINERATORS

Section 724.440 Applicability

a) The regulations in this Subpart apply to owners and operators of facilities that incinerate hazardous waste, except as Section 724.101 provides otherwise. The following facility owners and operators are considered to incinerate hazardous waste:

1) Owners or operators of hazardous waste incinerators (as defined in 35 Ill. Adm. Code 720.110); and

2) Owners or operators who burn hazardous waste in boilers or in industrial furnaces in order to destroy the wastes.

b) After consideration of the waste analysis included with Part B of the permit application, the Agency, in establishing the permit conditions, must exempt the applicant from all requirements of this Subpart except Section 724.441 (Waste analysis) and Section 724.451 (Closure):

1) If the Agency finds that the waste to be burned is:

A) Listed as a hazardous waste in 35 Ill. Adm. Code 721.Subpart D solely because it is ignitable (Hazard Code I), corrosive (Hazard Code C), or both; or

B) Listed as a hazardous waste in 35 Ill. Adm. Code 721.Subpart D solely because it is reactive (Hazard Code R) for characteristics other than those listed in Section 721.123(a)(4) and (5), and will not be burned when other hazardous wastes are present in the combustion zone; or

C) A hazardous waste solely because it possesses the characteristic of ignitability, test for characteristics of hazardous wastes under 35 Ill. Adm. Code 721.Subpart C; or

D) A hazardous waste solely because it possesses any of the reactivity characteristics described by 35 Ill. Adm. Code 721.123(a)(1), (2), (3), (6), (7) and (8) and will not be

burned when other hazardous wastes are present in the combustion zone; and

2) If the waste analysis shows that the waste contains none of the hazardous constituents listed in 35 Ill. Adm. Code 721.Appendix H, which would reasonably be expected to be in the waste.

c) If the waste to be burned is one which is described by paragraphs (b)(1)(A), (b)(1)(B), (b)(1)(C) or (b)(1)(D) and contains insignificant concentrations of the hazardous constituents listed in 35 Ill. Adm. Code 721.Appendix H, then the Agency may, in establishing permit conditions, exempt the applicant from all requirements of this Subpart, except Section 724.441 (Waste analysis) and Section 724.451 (Closure), after consideration of the waste analysis included with Part B of the permit application, unless the Agency finds that the waste will pose a threat to human health or the environment when burned in an incinerator.

d) The owner or operator of an incinerator may conduct trial burns subject only to the requirements of 35 Ill. Adm. Code 703.222 through 703.225 (Short term and incinerator permits).

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

Section 724.443 Performance Standards

An incinerator burning hazardous waste must be designed, constructed and maintained so that, when operated in accordance with operating requirements specified under Section 724.445, it will meet the following performance standards:

a)

1) Except as provided in paragraph (a)(2), an An incinerator burning hazardous waste must achieve a destruction and removal efficiency (DRE) of 99.99% for each principal organic hazardous constituent (POHC) designated (under Section 724.442) in its permit for each waste feed. DRE is determined for each POHC from the following equation:

DRE = 100 (N - O) / N

Where:

N = Mass feed rate of one principal organic hazardous constituent (POHC) in the waste stream feeding the incinerator, and

O = Mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

2) An incinerator burning hazardous wastes F020, F021, F022, F023, F026 or F027 must achieve a destruction and removal efficiency (DRE) of 99.9999% for each principal organic hazardous constituent (POHC) designated (under Section 724.442) in its permit. This performance must be demonstrated on POHCs that are more difficult to incinerate than tetra-, penta- and hexachlorodibenzo-p-dioxins and dibenzofurans. DRE is determined for each POHC from the equation in paragraph (a)(1). In addition, the owner or operator of the incinerator shall notify the Agency of its intent to incinerate hazardous wastes F020, F021, F022, F023, F026 or F027.

b) An incinerator burning hazardous waste and producing stack emissions of more than 1.8 kilograms per hour (4 pounds per hour) of hydrogen chloride (HCl) must control HCl emissions such that the rate of emission is no greater than the larger of either 1.8 kilograms per hour or 1% of the HCl in the stack gas prior to entering any pollution control equipment.

c) An incinerator burning hazardous waste must not emit particulate matter in excess of 180 milligrams per dry standard cubic meter (0.08 grains per dry standard cubic foot) when corrected for the amount of oxygen in the stack gas according to the formula:

$$C = 14(M) / (21 - Y)$$

1) Where:

C = the corrected concentration of particulate matter,

M = the measured concentration of particulate matter, and

Y = the measured concentration of oxygen in the stack gas, using the Orsat method for oxygen analysis of dry flue gas, presented in 40 CFR 60, Appendix A (Method 3).

2) This correction procedure is to be used by all hazardous waste incinerators except those operating under conditions of oxygen enrichment. For these facilities, the Agency will select an appropriate correction procedure, to be specified in the facility permit.

d) For the purposes of permit enforcement, compliance with the operating requirements specified in the permit (under Section 724.445) will be regarded as compliance with this Section. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the performance requirements of this Section may be "information" justifying modification, revocation or reissuance of a permit under 35 Ill. Adm. Code 702.184.

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

POLLUTION CONTROL BOARD

TEXT OF ADOPTED AMENDMENTS

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 M: LAND TREATMENT

SUBPART N: LANDFILLS

SUBPART O: INCINERATORS

SUBPART P: THERMAL TREATMENT

AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1983, 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, 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 Ill. Reg. , effective .

POLLUTION CONTROL BOARD

TEXT OF ADOPTED AMENDMENTS

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 ~~final administrative disposition of their permit application is made~~ 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, and/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: These Part 725 regulations do apply 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 paragraph (b).)

2) A person disposing of hazardous waste by means of underground injection subject to an Underground Injection Control (UIC) permit issued under 35 Ill. Adm. Code 704;

(Board Note: These Part 725 regulations do apply to the above ground treatment or storage of hazardous waste before it is injected underground. These Part 725 regulations also apply to the disposal of hazardous waste by means of underground injection, as provided in paragraph (b), until final administrative disposition of a person's permit application is made under 35 Ill. Adm. Code 703 or 704.)

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 paragraphs (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; ~~which~~

~~treats or stores hazardous waste, which treatment or storage meets the criteria in 35 Ill. Adm. Code 721.106(a), except to the extent that 35 Ill. Adm. Code 721.106(b) provides otherwise;~~

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 his own use in compliance with 35 Ill. Adm. Code 722.151;

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)

A) Except as provided in paragraph (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 paragraph (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 Section 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) ~~d)~~ 35 Ill. Adm. Code 700 contains rules concerning application of other Board regulations.

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

SUBPART B: GENERAL FACILITY STANDARDS

Section 725.113 General Waste Analysis

a)

1) Before an owner or operator treats, stores or disposes of any hazardous waste, he must 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.

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

(Board Note: Comment 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 paragraph (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 paragraph (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 insure 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 has changed; and

B) For off-site facilities, when the results of the inspection required in paragraph (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 must 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 must develop and follow a written waste analysis plan which describes the procedures which he will carry out to comply with paragraph (a). He must keep this plan at the facility. At a minimum, the plan must specify:

1) The parameters for which each hazardous waste 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 paragraph (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 ~~Appendix I of Part 721~~; 35 Ill. Adm. Code 721.Appendix A or

B) An equivalent sampling method.

(Board Note: ~~Comment~~ See ~~Section~~ 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; and

6) Where applicable, the methods which will be used to meet the additional waste analysis requirements for specific waste management methods as specified in Section 725.293, 725.325, 725.352, 725.373, 725.414, 725.445, 725.475 and 725.502.

c) For off-site facilities the waste analysis plan required in paragraph (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 Ill. Reg. , effective)

SUBPART E: MANIFEST SYSTEM, RECORDKEEPING AND REPORTING

Section 725.173 Operating Record

a) The owner or operator must keep a written operating record at his 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(s) and date(s) of its treatment, storage or disposal at the facility as required by Appendix ~~I~~ 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;

~~Comment:~~ (Board Note: See Sections 725.219, 725.379 and 725.409 for related requirements.)

3) Records and results of waste analysis and trial test performed as specified in Sections 725.113, 725.293, 725.325, 725.352, 725.373, 725.414, 725.441, 725.475 and 725.502;

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 Section 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, 725.376, 725.378, 725.380(d)(1), 725.447 and 725.477; and

~~Comment:~~ (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.

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

SUBPART K: SURFACE IMPOUNDMENTS

Section 725.322 General Operating Requirements

a) A surface impoundment must maintain enough freeboard to prevent any overtopping of the dike by overfilling, wave action or a storm. Except as provided in paragraph (b), ~~T~~There must be at least 60 centimeters (2 feet) of freeboard.

b) A freeboard level less than 60 centimeters (two feet) may be maintained if the owner or operator obtains certification by a qualified engineer that alternate design features or operating plans will, to the best of the engineer's knowledge and opinion, prevent overtopping of the dike. The certification, along with a written identification of alternate design features or operating plans preventing overtopping, must be maintained at the facility.

~~Comment:~~ (Board Note: Any point source discharge from a surface impoundment to waters of the state is subject to the requirements of Section 12 of the Illinois Environmental Protection Act, as amended. Spills may be subject to Section 311 of the Clean Water Act.)

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

Section 725.329 Special Requirements for Ignitable or Reactive Waste

Ignitable or reactive waste must not be placed in a surface impoundment unless:

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 ~~Sections~~ 35 Ill. Adm. Code 721.121 or 721.123 and

2) Section 725.117(b) is complied with; or

b) 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's 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)~~b)~~ The surface impoundment is used solely for emergencies.

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

SUBPART M: LAND TREATMENT

Section 725.372 General Operating Requirements

a) Hazardous waste must not be placed in or on a land treatment facility unless the waste can be made less hazardous or non-hazardous by ~~biological~~ degradation, transformation or ~~chemical reactions~~ immobilization processes occurring in or on the soil.

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

c) The owner or operator must design, construct, operate and maintain a run-off management system capable of collecting and controlling a water volume at least equivalent to a 24-hour, 25-year storm.

d) 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.

e) If the treatment zone contains particulate matter which may be subject to wind dispersal the owner or operator must manage the unit to control wind dispersal.

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

SUBPART N: LANDFILLS

Section 725.402 General Operating Requirements

a) 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.

b) 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.

c) 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.

d) The owner or operator of a landfill containing hazardous waste which is subject to dispersal by wind must cover or otherwise manage the landfill so that wind dispersal of the hazardous waste is controlled.

(Board Note: As required by Section 725.113, the waste analysis plan must include analyses needed to comply with Sections 725.412, and 725.413 and 725.414. As required by Section 725.173, the owner or operator must place the results of these analyses in the operating record of the facility.)

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

Section 725.410 Closure and Post-closure

~~a) The owner or operator must place a final cover over the landfill and the closure plan under Section 725.212 must specify the function and design of the cover. In the post-closure plan under Section 725.218 the owner or operator must include the post-closure care requirements of paragraph (d) of this Section.~~

~~b) In the closure and post-closure plans the owner or operator must address the following objectives and indicate how they will be achieved:~~

~~1) Control of pollutant migration from the facility via ground-water, surface water and air;~~

~~2) Control of surface water infiltration, including prevention of pooling; and~~

~~3) Prevention of erosion,~~

e) The owner or operator must consider at least the following factors in addressing the closure and post-closure care objectives of paragraph (b) of this Section:

1) Type and amount of hazardous waste and hazardous waste constituents in the landfill;

2) The mobility and the expected rate of migration of the hazardous waste and hazardous waste constituents;

3) Site location, topography and surrounding land use with respect to the potential effects of pollutant migration (e.g., proximity to ground-water, surface water and drinking water sources);

4) Climate, including amount, frequency and pH of precipitation;

5) Characteristics of the cover including material, final surface contours, thickness, porosity and permeability, slope, length of run of slope and type of vegetation on the cover; and

6) Geological and soil profiles and surface and subsurface hydrology of the site.

d) In addition to the requirements of Section 725.217, during the post-closure care period the owner or operator of a hazardous waste landfill must:

1) Maintain the function and integrity of the final cover as specified in the approved closure plan;

2) Maintain and monitor the leachate collection, removal and treatment system (if there is one present in the landfill) to prevent excess accumulation of leachate in the system;

Comment: If the collected leachate is a hazardous waste under Part 721 it must be managed as a hazardous waste in accordance with all applicable requirements of Parts 722, 723 and 725. If the collected leachate is discharged through a point source to waters of the State it is subject to the requirements of Section 12 of the Illinois Environmental Protection Act, as amended.

~~3) Maintain and monitor the gas collection and control system (if there is one present in the landfill) to control the vertical and horizontal escape of gases;~~

~~4) Protect and maintain surveyed benchmarks; and~~

~~5) Restrict access to the landfill as appropriate for its post-closure use.~~

a) At final closure of the landfill or upon closure of any cell, the owner or operator must cover the landfill or cell with a final cover designed and constructed to:

1) Provide long-term minimization of migration of liquids through the closed landfill;

2) Function with minimum maintenance;

3) Promote drainage and minimize erosion or abrasion of the cover;

4) Accommodate settling and subsidence so that the cover's integrity is maintained; and

5) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

b) After final closure, the owner or operator shall comply with all post-closure requirements contained in Section 725.217 through 725.220 including maintenance and monitoring throughout the post-closure care period. The owner or operator shall:

1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cover as necessary to correct the effects of settling, subsidence, erosion or other events;

2) Maintain and monitor the ground-water monitoring system and comply with all other applicable requirements of Subpart F;

3) Prevent run-on and run-off from eroding or otherwise damaging the final cover; and

4) Protect and maintain surveyed benchmarks used in complying with Section 725.409.

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

Section 725.414 Special Requirements for Liquid Waste

a) Bulk or non-containerized liquid waste or waste containing free liquids must not be placed in a landfill unless:

1) The landfill has a liner and leachate collection and removal system which meets the requirements of 35 Ill. Adm. Code 724.401(a); or

2) Before disposal, the liquid waste or waste containing free liquids is treated or stabilized, chemically or physically (e.g., by mixing with an absorbent solid) so that free liquids are no longer present.

b) Containers holding free liquids must not be placed in a landfill unless:

1) All free-standing liquid:

A) Has been removed by decanting, or other methods; or

B) Has been mixed with absorbent or solidified so that free-standing liquid is no longer observed; or

C) Has been otherwise eliminated; or

2) The container is very small, such as an ampule; or

3) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

4) The container is a lab pack as defined in Section 725.416 and is disposed of in accordance with Section 725.416.

c) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095 (Paint Filter Liquids

Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods." (EPA Publication No. SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111).

d) Disposal of liquid wastes or wastes containing free liquids otherwise allowed under this Section must be authorized pursuant to 35 Ill. Adm. Code 709.401(a). As required by 35 Ill. Adm. Code 709.520(c), the Agency must require the addition of absorbents to any such waste, any provision of this Section notwithstanding.

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

Section 725.415 Special Requirements for Containers

Unless they are very small, such as an ampule, containers must be either:

a) At least 90 percent full when placed in the landfill; or

b) Crushed, shredded or similarly reduced in volume to the maximum practical extent before burial in the landfill.

~~a) An empty container must be crushed flat, shredded or similarly reduced in volume before it is buried beneath the surface of a landfill.~~

~~b) The date for compliance with the Section is November 19, 1981.~~

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

SUBPART O: INCINERATORS

Section 725.440 Applicability

a) The regulations in this Subpart apply to owners or operators of facilities that incinerate ~~treat~~ hazardous waste ~~in incinerators~~, except as ~~Section 725.101~~ 35 Ill. Adm. Code 724.101 and ~~paragraph (b) of this Section~~ provides otherwise. The following facility owners and operators are considered to incinerate hazardous waste:

1) Owners or operators of hazardous waste incinerators (as defined in 35 Ill. Adm. Code 720.110); and

2) Owners or operators who burn hazardous wastes in boilers or in industrial furnaces in order to destroy the wastes.

b) Owners and operators of incinerators burning hazardous waste are exempt from all of the requirements of this Subpart, except Section 725.451 (Closure), provided that the owner or operator has documented, in writing, that the waste would not reasonably be expected to contain any of the hazardous constituents listed in ~~Appendix VIII of~~ 35 Ill. Adm. Code 721.Appendix H and such documentation is retained at the facility, if the waste to be burned is:

1) Listed as a hazardous waste in ~~Subpart D of~~ 35 Ill. Adm. Code 721.Subpart D, solely because it is ignitable (Hazard Code I), corrosive (Hazard Code C), or both; or

2) Listed as a hazardous waste in ~~Subpart D~~ 35 Ill. Adm. Code 721.Subpart D, solely because it is reactive (Hazard Code R) for characteristics other than those listed in ~~Sections~~ 35 Ill. Adm. Code 721.123(a)(4) and (5), and will not be burned when other hazardous wastes are present in the combustion zone; or

3) A hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both, as determined by the tests for characteristics of hazardous wastes under ~~Subpart C of~~ 35 Ill. Adm. Code 721.Subpart C; or

4) A hazardous waste solely because it possesses the reactivity characteristics described by ~~Sections~~ 35 Ill. Adm. Code 721.123 (a)(1), (2), (3), (6), (7) or (8) and will not be burned when other hazardous wastes are present in the combustion zone.

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

Section 725.452 Interim Status Incinerators Burning Particular Hazardous Wastes

a) Owners or operators of incinerators subject to this Subpart may burn hazardous wastes numbers F020, F021,

F022, F023, F026 or F027 if they receive a certification from the Agency that they can meet the performance standards to 35 Ill. Adm. Code.Subpart O when they burn these wastes.

b) The following standards and procedures will be used in determining whether to certify an incinerator:

1) The owner or operator shall submit an application to the Agency containing applicable information in 35 Ill. Adm. Code 703.125, 703.222, 703.223, 703.224 and 703.225 demonstrating that the incinerator can meet the performance standards in 35 Ill. Adm. Code 724.Subpart O when they burn these wastes.

2) The Agency shall issue a tentative decision as to whether the incinerator can meet the performance standards in 35 Ill. Adm. Code.Subpart O. Notification of this tentative decision will be provided by newspaper advertisement and radio broadcast in the county where the incinerator is located. The Agency shall accept comment on the tentative decision for 60 days. The Agency also may hold a public hearing upon request or at its discretion.

3) After the close of the public comment period, the Agency shall issue a decision whether or not to certify the incinerator.

4) Any person who participated may appeal the Agency's decision to the Board, pursuant to 35 Ill. Adm. code 705.212.

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

SUBPART P: THERMAL TREATMENT

Section 725.470 ~~Applicability~~ Other Thermal Treatment

The regulations in this Subpart apply to owners and operators of facilities that thermally treat hazardous waste in devices other than enclosed devices using controlled flame combustion ~~incinerators~~, except as Section 725.101 provides otherwise. Thermal treatment in enclosed devices using controlled flame combustion ~~incinerators~~ is subject to the requirements of Subpart O if the unit is an incinerator.

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

Section 725.483 Interim Status Thermal Treatment Devices Burning Particular Hazardous Waste

a) Owners or operators of thermal treatment devices subject to this Subpart may burn hazardous waste numbers F020, F021, F022, F023, F026 or F027 if they receive a certification from the Agency that they can meet the performance standards of 35 Ill. Adm. Code 724.Subpart O when they burn these wastes.

b) The following standards and procedures will be used in determining whether to certify a thermal treatment unit:

1) The owner or operator shall submit an application to the Agency containing the applicable information in 35 Ill. Adm. Code 703.125, 703.222, 703.223, 703.224 and 703.225 demonstrating that the thermal treatment unit can meet the performance standard in 35 Ill. Adm. Code 724.Subpart O when they burn these wastes.

2) The Agency shall issue a tentative decision as to whether the thermal treatment unit can meet the performance standards in 35 Ill. Adm. Code 724.Subpart O. Notification of this tentative decision must be provided by newspaper advertisement and radio broadcast in the county where the thermal treatment device is located. The Agency shall accept comment on the tentative decision for 60 days. The Agency also may hold a public hearing upon request or at its discretion.

3) After the close of the public comment period, the Agency shall issue a decision whether or not to certify the thermal treatment unit.

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

POLLUTION CONTROL BOARD

TEXT OF ADOPTED RULES

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

SUBPART D: HAZARDOUS WASTE 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. 1983, ch. 111 1/2, pars. 1022.4 and 1027).

SOURCE: Adopted in R85-22 at Ill. Reg. , effective

SUBPART C: RECYCLABLE MATERIALS USED IN A MANNER CONSTITUTING DISPOSAL

Section 726.120 Applicability

a) The regulations of this Subpart apply to recyclable materials that are applied to or placed on the land:

1) without mixing with any other substance(s); or

2) after mixing with any other substance(s), unless the recyclable material undergoes a chemical reaction so as to become inseparable from the other substance(s) by physical means; or

3) after combination with any other substance(s) if the resulting combined material is not produced for the general public's use. These materials will be referred to throughout this Subpart as "materials used in a manner that constitutes disposal."

b) Products produced for the general public's use that are used in a manner that constitutes disposal and that contain recyclable materials are not presently subject to regulation under this Subpart if the recyclable

materials have undergone a chemical reaction in the course of producing the product so as to become inseparable by physical means. Commercial fertilizers that are produced for the general public's use that contain recyclable materials also are not presently subject to regulation under this Subpart.

Section 726.121 Standards applicable to generators and transporters of materials used in a manner that constitutes disposal

Generators and transporters of materials that are used in a manner that constitute disposal are subject to the applicable requirements of 35 Ill. Adm. Code 722 and 723 and the notification requirement under Section 3010 of the Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.).

Section 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

Owners or operators of facilities that store recyclable materials that are to be used in a manner that constitutes disposal, but who are not the ultimate users of the materials, are regulated under all applicable provisions of 35 Ill. Adm. Code 724 and 725.Subparts A through L, and 35 Ill. Adm. Code 702, 703 and 705, and the notification requirement under Section 3010 of the Resource Conservation and Recovery Act.

Section 726.123 Standards applicable to users of materials that are used in a manner that constitutes disposal

Owners or operators of facilities that use recyclable materials in a manner that constitutes disposal are regulated under all applicable provisions of 35 Ill. Adm. Code 724 and 725.Subparts A through N, and 35 Ill. Adm. Code 702, 703 and 705, and the notification requirement under Section 3010 of the Resource Conservation and Recovery Act. (These requirements do not apply to products which contain these recyclable materials under the provisions of Section 726.120(b)).

SUBPART D: HAZARDOUS WASTE BURNED FOR ENERGY RECOVERY

Section 726.130 Applicability

a) The regulations of this Subpart apply to hazardous wastes that are burned for energy recovery in any boiler or industrial furnace that is not regulated under 35 Ill. Adm. Code 724 or 725.Subpart O except as provided by paragraph (b). Such hazardous wastes burned for energy recovery are termed "hazardous waste fuel". However, hazardous waste fuels produced from hazardous waste by blending or other treatment by a person who neither generated the waste nor burns the fuel are not presently subject to regulation under this Subpart.

(Board Note: An operator performing such blending or treatment may be subject to the Resource Conservation and Recovery Act permit requirement of Section 21(f) of the Environmental Protection Act and 35 Ill. Adm. Code 703).

b) The following hazardous wastes are not regulated under this subpart:

1) Used oil burned for energy recovery that is also a hazardous waste solely because it exhibits a characteristic of hazardous waste identified in 35 Ill. Adm. Code 721.Subpart C. Such used oil is subject to regulation under Subpart E rather than this subpart; and

2) Hazardous wastes that are exempt from regulation under the provisions of 35 Ill. Adm. Code 721.104 and hazardous wastes that are subject to the special requirements for small quantity generators under the provisions of 35 Ill. Adm. Code 721.105.

3) Hazardous waste fuels that are exempt from the labeling requirements of Section 3004(r) of the Resource Conservation and Recovery Act.

4) Coke from the iron and steel industry that contains hazardous waste from the iron and steel production process.

Section 726.131 Prohibitions

Specific prohibitions applicable to activities subject to this Subpart have not been promulgated. However, all prohibitions otherwise applicable to such activities remain in force.

Section 726.132 Standards applicable to generators of hazardous waste fuel

a) Generators of hazardous waste fuel are subject to the requirements of 35 Ill. Adm. Code 722 except that Section 726.136 exempts certain spent materials and by-products from these provisions;

b) Generators who are marketers also shall comply with Section 726.134;

c) Generators who are burners also shall comply with Section 726.135.

Section 726.133 Standards applicable to transporters of hazardous waste fuel

a) Transporters of hazardous waste fuel from generator to marketer or from a generator to a burner are subject to the requirements of 35 Ill. Adm. Code 723 except that Section 726.136 exempts certain spent materials and by-products from these provisions.

b) Transporters of hazardous waste fuel are not presently subject to regulation under this Subpart when they transport hazardous wastes fuel from marketers, who are not also the generators of the waste, to burners or other marketers.

Section 726.134 Standards applicable to marketers of hazardous waste fuel

Persons who market hazardous waste fuel are called "marketers". Marketers include generators who market hazardous waste fuel directly to a burner, and persons who receive hazardous waste from generators and produce, process or blend hazardous waste fuel from these hazardous wastes. Persons who distribute but do not process or blend hazardous waste fuel are also marketers, but are not presently subject to regulation under this Subpart. Marketers (other than distributors) are subject to the following requirements: Prohibitions:

c) Storage

1) Marketers who are generators are subject to the requirements of 35 Ill. Adm. Code 722.134 or to 35 Ill. Adm. Code 724 and 725.Subparts A through L, and 35 Ill. Adm. Code 702, 703 and 705, except as provided by Section 726.136 for certain spent materials and by-products.

2) Marketers who receive hazardous wastes from generators, and produce, process or blend hazardous waste fuel from these hazardous wastes, are subject to regulation under all applicable provisions of 35 Ill. Adm. Code 724 and 725.Subparts A through L, and 35 Ill. Adm. Code 702, 703 and 705, except as provided by Section 726.136 for certain spent materials and by-products.

Section 726.135 Standards applicable to burners of hazardous waste fuel

Burners that store hazardous waste fuel prior to burning are subject to the requirements of 35 Ill. Adm. Code 722.134, or to all applicable requirements in 35 Ill. Adm. code 724 or 725.Subparts A though L, with respect to such storage, except as provided by Section 726.136 for certain spent materials and by-products.

Section 726.136 Conditional exemption for spent materials and by-products exhibiting a characteristic of hazardous waste

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 impoundment prior to burning.

SUBPART F: RECYCLABLE MATERIALS UTILIZED FOR PRECIOUS METAL RECOVERY

Section 726.170 Applicability and requirements

a) The regulations of this subpart apply to recyclable materials that are reclaimed to recover economically significant amounts of gold, silver, platinum, paladium, irradium, osmium, rhodium, ruthenium, or any combination of these.

b) Persons who generate, transport or store recyclable materials that are regulated under this Subpart are subject to the following requirements:

1) Notification requirements under Section 3010 of the Resource Conservation and Recovery Act;

2) 35 Ill. Adm. Code 722.Subpart B (for generators), 35 Ill. Adm. Code 723.120 and 121 (for transporters), and 35 Ill. Adm. Code 725.171 and 725.172 (for persons who store).

c) Persons who store recycled materials that are regulated under this Subpart shall keep the following records to document that they are not accumulating these materials speculatively (as defined in 35 Ill. Adm. Code 721.101(c);

1) Records showing the volume of these materials stored at the beginning of the calendar year;

2) The amount of these materials generated or received during the calendar year; and

3) The amount of materials remaining at the end of the calendar year.

d) Recyclable materials that are regulated under this Subpart that are accumulated speculatively (as defined in 35 Ill. Adm. Code 721.101(c)) are subject to all applicable provisions of 35 Ill. Adm. Code 722 through 725, and 35 Ill. Adm. Code 702, 703 and 705.

SUBPART G: SPENT LEAD-ACID BATTERIES BEING RECLAIMED

Section 726.180 Applicability and requirements

a) The regulations of this Subpart apply to persons who reclaim spent lead-acid batteries that are recyclable materials ("spent batteries"). Persons who generate, transport or collect spent batteries, or who store spent batteries but do not reclaim them are not subject to regulation under 35 Ill. Adm. Code 722 through 726 or 35 Ill. Adm. Code 702, 703 or 705, and also are not subject to the requirements of Section 3010 of the Resource Conservation and Recovery Act.

b) Owners or operators of facilities that store spent batteries before reclaiming them are subject to the following requirements.

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

2) All applicable provisions in 35 Ill. Adm. Code 724.Subparts A, B (but not 35 Ill. Adm. Code 724.113 (waste analysis)), C,D,E (but not 35 Ill. Adm. Code 724.171 or 724.172 dealing with the use of the manifest and manifest discrepancies), and F through L;

3) All applicable provisions in 35 Ill. Adm. Code 725.Subparts A, B (but not 35 Ill. Adm. Code 725.113 (waste analysis)), C,D,E (but not 35 Ill. Adm. Code 725.171 and 725.172 dealing with the use of the manifest and manifest discrepancies), and F through L;

4) All applicable provisions in 35 Ill. Adm. Code 702, 703 and 705.