# ILLINOIS POLLUTION CONTROL BOARD April 21, 1994

IN THE MATTER OF: ) R94-7 RCRA UPDATE, USEPA REGULATIONS ) (Identical in Substance Rules) (7-1-93 THROUGH 12-31-93) )

Proposal for Public Comment.

PROPOSED ORDER OF THE BOARD (by E. Dunham):

Pursuant to Sections 22.4(b) of the Environmental Protection Act (Act), the Board is proposing to amend the Resource Conservation and Recovery Act (RCRA) regulations.

Section 22.4(b) provides for quick adoption of regulations that are "identical in substance" to federal regulations and that Title VII of the Act and Section 5 of the Administrative Procedure Act (APA) shall not apply. Because this rulemaking is not subject to Section 5 of the APA, it is not subject to first notice or to second notice review by the Joint Committee on Administrative Rules (JCAR). The federal RCRA regulations are found at 40 CFR 260 through 272 and 279. This rulemaking updates RCRA rules to correspond with major federal amendments more fully outlined in the accompanying opinion.

This proposed order is supported by a proposed opinion adopted on the same day. The Board will receive public comment on the proposal for a period of 45 days following its publication in the Illinois Register. The complete text of the proposed rules follows.

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, do hereby certify that the above proposed order was adopted by the Board on the  $\underline{-\mathcal{A}}$  day of  $\underline{-\mathcal{A}}$ , 1994, by a vote of  $\underline{-\mathcal{A}}$ .

Dorothy M. Gunn, Clerk Illinois Pollution Control Board

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

## **PART 703** RCRA PERMIT PROGRAM

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AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1991, ch. 1114, pars. 1022.4 and 1027 [415 ILCS 5/22.4 and 27]).

SOURCE: Adopted in R82-19, 53 PCB 131, at 7 Ill. Reg. 14289, effective October 12, 1983; amended in R83-24 at 8 Ill. Reg. 206, effective December 27, 1983; amended in R84-9 at 9 Ill. Reg. 11899, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 1110, effective January 2, 1987; amended in R85-23 at 10 Ill. Reg. 13284, effective July 28, 1986; amended in R86-1 at 10 Ill. Reg. 14093, effective August 12, 1986; amended in R86-19 at 10 Ill. Reg. 20702, effective December 2, 1986; amended in R86-28 at 11 Ill. Reg. 6121, effective March 24, 1987; amended in R86-46 at 11 Ill. Reg. 13543, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19383, effective November 12, 1987; amended in R87-26 at 12 Ill. Reg. 2584, effective January 15, 1988; amended in R87-39 at 12 Ill. Reg. 13069, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 447, effective December 27, 1988; amended in R89-1 at 13 Ill. Reg. 18477, effective November 13, 1989; amended in R89-9 at 14 Ill. Reg. 6278, effective April 16, 1990; amended in R90-2 at 14 Ill. Reg. 14492, effective August 22, 1990; amended in R90-11 at 15 Ill. Reg. 9616, effective

June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14554, effective September 30, 1991; amended in R91-13 at 16 Ill. Reg. 9767, effective June 9, 1992; amended in R92-10 at 17 Ill. Reg. 5774, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20794, effective November 22, 1993; amended in R93-16 at Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_\_; amended in R94-7 at Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_\_.

# 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 (Second Edition, 1982 as amended by Update I (April, 1984) and Update II (April, 1985)). The second edition of SW-846 and Updates I and II are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 20401 (202) 783-3238, on a subscription basis. (See 35 Ill. Adm. Code 720.111.)

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

(BOARD NOTE: Derived from 40 CFR 270.6 (1992), as amended at 58 Fed. Reg. 46051 (Aug. 31, 1993).

(Source: Amended at 18 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

SUBPART D: APPLICATIONS

Section 703.205 Incinerators

For facilities that incinerate hazardous waste, except as 35 Ill. Adm. Code 724.440 provides otherwise, the applicant must fulfill the requirements of paragraphsubsections (a), (b) or (c) below in completing the Part B application:

- a) When seeking exemption under 35 Ill. Adm. Code 724.440(b) or (c) (ignitable, corrosive or reactive wastes only):
  - Documentation that the waste is listed as a hazardous waste in 35 Ill. Adm. Code 7217-.Subpart D solely because it is ignitable (Hazard Code I), corrosive (Hazard Code C), or both; or
  - 2) Documentation that the waste is listed as a hazardous waste in 35 Ill. Adm. Code 7217-.Subpart D solely because it is reactive (Hazard Code R) for characteristics other than those listed in 35 Ill. Adm. Code 721.123(a)(4) and (a)(5), and will not be burned when other hazardous wastes are present in the combustion zone; or
  - 3) Documentation that the waste is a hazardous waste solely because it possesses the characteristic of ignitability or corrosivity, or both, as determined by the tests for

characteristics of hazardous wastes under 35 Ill. Adm. Code 7217-.Subpart C; or

- Documentation that the waste is a hazardous waste solely because it possesses the reactivity characteristics listed in 35 Ill. Adm. Code 721.123 (a)(1)τ (2)τthrough (a)(3)τ or (a)(6)τ (7) orthrough (a)(8), and that it will not be burned when other hazardous wastes are present in the combustion zone; or
- b) Submit a trial burn plan or the results of a trial burn, including all required determinations, in accordance with Section 703.222 et seq.; or
- c) In lieu of a trial burn, the applicant may submit the following information:
  - An analysis of each waste or mixture of wastes to be burned including:
    - A) Heat value of the waste in the form and composition in which it will be burned;
    - B) Viscosity (if applicable), or description of physical form of the waste;
    - C) An identification of any hazardous organic constituents listed in 35 Ill. Adm. Code 721<sub>7</sub> .Appendix H<sub>7</sub> whichthat are present in the waste to be burned, except that the applicant need not analyze for constituents listed in 35 Ill. Adm. Code 721<sub>7</sub> .Appendix H whichthat would reasonably not be expected to be found in the waste. The constituents excluded from analysis must be identified and the basis for their exclusion stated. The waste analysis must rely on analytical techniques specified in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods", U.S. EPA Publication SW-846, as (incorporated by reference, see at 35 Ill. Adm. Code 720.111 and Section 703.110 and referenced in 35 Ill. Adm. Code 721, Appendix C), or their equivalent;
    - D) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by the analytical methods specified in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods", U.S. EPA Publication SW-846, as (incorporated by reference, see at 35 Ill. Adm. Code 720.111 and Section 703.110);
    - E) A quantification of those hazardous constituents in the waste which that may be designated as POHCs based on data submitted from other trial or operational burns which that demonstrate compliance with the performance standard in 35 Ill. Adm. Code 724.443;
  - 2) A detailed engineering description of the incinerator, including:
    - A) Manufacturer's name and model number of incinerator;
    - B) Type of incinerator;

- C) Linear dimension of incinerator unit including cross sectional area of combustion chamber;
- D) Description of auxiliary fuel system (type/feed);
- E) Capacity of prime mover;
- F) Description of automatic waste feed cutoff system(s);
- G) Stack gas monitoring and pollution control monitoring system;
- H) Nozzle and burner design;
- I) Construction materials;
- J) Location and description of temperature, pressure and flow indicating devices and control devices;
- 3) A description and analysis of the waste to be burned compared with the waste for which data from operational or trial burns are provided to support the contention that a trial burn is not needed. The data should include those items listed in paragraphsubsection (c)(1) above. This analysis should specify the POHCs which that the applicant has identified in the waste for which a permit is sought, and any differences from the POHCs in the waste for which burn data are provided;
- 4) The design and operating conditions of the incinerator unit to be used, compared with that for which comparative burn data are available;
- 5) A description of the results submitted from any previously conducted trial burn(s) including:
  - A) Sampling and analysis techniques used to calculate performance standards in 35 Ill. Adm. Code 724.443;
  - B) Methods and results of monitoring temperatures, waste feed rates, carbon monoxide and an appropriate indicator of combustion gas velocity (including a statement concerning the precision and accuracy of this measurement);
  - C) The certification and results required by paragraphsubsection (b) above;
- 6) The expected incinerator operation information to demonstrate compliance with 35 Ill. Adm. Code 724.443 and 724.445 including:
  - A) Expected carbon monoxide (CO) level in the stack exhaust gas;
  - B) Waste feed rate;
  - C) Combustion zone temperature;
  - D) Indication of combustion gas velocity;
  - E) Expected stack gas volume, flow rate and temperature;

- F) Computed residence time for waste in the combustion zone;
- G) Expected hydrochloric acid removal efficiency;
- H) Expected fugitive emissions and their control procedures;
- Proposed waste feed cut-off limits based on the identified significant operating parameters;
- 7) The Agency may, pursuant to 35 Ill. Adm. Code 705.122, request such additional information as may be necessary for the Agency to determine whether the incinerator meets the requirements of 35 Ill. Adm. Code 7247.Subpart 0, and what conditions are required by that Subpart and Section 39(d) of the Environmental Protection Act;
- 8) Waste analysis data, including that submitted in paragraphsubsection (c)(1) above, sufficient to allow the Agency to specify as permit Principal Organic Hazardous Constituents (permit POHCs) those constituents for which destruction and removal efficiencies will be required;
- d) The Agency shall approve a permit application without a trial burn if it finds that:
  - 1) The wastes are sufficiently similar; and
  - 2) The incinerator units are sufficiently similar, and the data from other trial burns are adequate to specify (under 35 Ill. Adm. Code 724.445) operating conditions that will ensure that the performance standards in 35 Ill. Adm. Code 724.443 will be met by the incinerator.

(BOARD NOTE: <u>Derived from 40 CFR 270.19 (1992)</u>, as amended at 58 Fed. Reg. 46051 (Aug. 31, 1993). See 40 CFR 122.25(b)(5).)

(Source: Amended at 18 Ill. Reg. \_\_\_\_, effective \_\_\_\_\_)

SUBPART E: SHORT TERM AND PHASED PERMITS

Section 703.223 Incinerator Conditions During Trial Burn

For the purposes of determining feasibility of compliance with the performance standards of 35 Ill. Adm. Code 724.443 and of determining adequate operating conditions under 35 Ill. Adm. Code 724.445, the Agency shall establish conditions in the permit to a new hazardous waste incinerator to be effective during the trial burn.

- a) Applicants shall propose a trial burn plan, prepared under subsection (b) below with Part B of the permit application;
- b) The trial burn plan must include the following information:
  - An analysis of each waste or mixture of wastes to be burned whichthat includes:
    - A) Heat value of the waste in the form and composition in

which it will be burned;

- B) Viscosity (if applicable), or description of physical form of the waste;
- C) An identification of any hazardous organic constituents listed in 35 Ill. Adm. Code 721.Appendix H, whichthat are present in the waste to be burned, except that the applicant need not analyze for constituents listed in <u>35 Ill. Adm. Code 721.Appendix</u> H whichthat would reasonably not be expected to be found in the waste. The constituents excluded from analysis must be identified, and the basis for their exclusion stated. The waste analysis must rely on analytical techniques specified in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods", U.S. EPA Publication SW-846, as fincorporated by reference, see at 35 Ill. Adm. Code <u>720.111 and</u> Section 703.110<del>)</del>, or their equivalent;
- D) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by the analytical methods specified in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods<sub>7</sub>", U.S. EPA Publication SW-<u>846, as (incorporated by reference, see at 35 Ill.</u> <u>Adm. Code 720.111 and Section 703.110;</u> or their equivalent;
- 2) A detailed engineering description of the incinerator for which the permit is sought including:
  - A) Manufacturer's name and model number of incinerator (if available);
  - B) Type of incinerator;
  - C) Linear dimensions of the incinerator unit including the cross sectional area of combustion chamber;
  - D) Description of the auxiliary fuel system (type/feed);
  - E) Capacity of prime mover;
  - F) Description of automatic waste feed cut-off system(s);
  - G) Stack gas monitoring and pollution control equipment;
  - H) Nozzle and burner design;
  - Construction materials;
  - J) Location and description of temperature, pressure and flow indicating and control devices;
- 3) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency and planned analytical procedures for sample analysis;
- 4) A detailed test schedule for each waste for which the trial

burn is planned including date(s), duration, quantity of waste to be burned and other factors relevant to the Agency's decision under subsection (e)\_below;

- 5) A detailed test protocol, including, for each waste identified, the ranges of temperature, waste feed rate, combustion gas velocity, use of auxiliary fuel and any other relevant parameters that will be varied to affect the destruction and removal efficiency of the incinerator;
- 6) A description of, and planned operating conditions for, any emission control equipment whichthat will be used;
- 7) Procedures for rapidly stopping waste feed, shutting down the incinerator and controlling emissions in the event of an equipment malfunction;
- 8) Such other information as the Agency reasonably finds necessary to determine whether to approve the trial burn plan in light of the purposes of this paragraphsubsection and the criteria in subsection (e) below. Such information must be requested by the Agency pursuant to 35 Ill. Adm. Code 705.123.
- c) The Agency, in reviewing the trial burn plan, shall evaluate the sufficiency of the information provided and shall require the applicant, pursuant to 35 Ill. Adm. Code 705.123, to supplement this information, if necessary, to achieve the purposes of this paragraphsubsection;
- Based on the waste analysis data in the trial burn plan, the Agency shall specify as trial Principal Organic Hazardous Constituents (POHCs), those constituents for which destruction and removal efficiencies must be calculated during the trial burn. These trial POHCs must be specified by the Agency based on its estimate of the difficulty of incineration of the constituents identified in the waste analysis, their concentration or mass in the waste feed, and, for wastes listed in 35 Ill. Adm. Code 721.Subpart D, the hazardous waste organic constituent of constituents identified in 35 Ill. Adm. Code 721.Appendix G or H as the basis for listing;
- e) The Agency shall approve a trial burn plan if it finds that:
  - The trial burn is likely to determine whether the incinerator performance standard required by 35 Ill. Adm. Code 724.443 can be met;
  - 2) The trial burn itself will not present an imminent hazard to human health or the environment;
  - 3) The trial burn will help the Agency to determine operating requirements to be specified under 35 Ill. Adm. Code 724.445; and
  - 4) The information sought in subsections (e)(1) and (e)(3) above cannot reasonably be developed through other means;
- f) During each approved trial burn (or as soon after the burn as is practicable), the applicant shall make the following determinations:

- 1) A quantitative analysis of the trial POHCs, in the waste feed to the incinerator;
- 2) A quantitative analysis of the exhaust gas for the concentration and mass emissions of the trial POHC's, molecular oxygen and hydrogen chloride (HCl);
- 3) A quantitative analysis of the scrubber water (if any), ash residues and other residues, for the purpose of estimating the fate of the trial POHCs;
- 4) A computation of destruction and removal efficiency (DRE), in accordance with the DRE formula specified in 35 Ill. Adm. Code 724.443(a);
- 5) If the HCl (hydrogen chloride) emission rate exceeds 1.8 kilograms of HCl per hour (4 pounds per hour), a computation of HCl removal efficiency in accordance with 35 Ill. Adm. Code 724.443(b);
- 6) A computation of particulate emissions, in accordance with 35 Ill. Adm. Code 724.443(c);
- 7) An identification of sources of fugitive emissions and their means of control;
- A measurement of average, maximum and minimum temperatures and combustion gas velocity;
- 9) A continuous measurement of carbon monoxide (CO) in the exhaust gas;
- 10) Such other information as the Agency specifies as necessary to ensure that the trial burn will determine compliance with the performance standards in 35 Ill. Adm. Code 724.443 and to establish the operating conditions required by 35 Ill. Adm. Code 724.445 as necessary to meet that performance standard.
- g) The applicant shall submit to the Agency a certification that the trial burn has been carried out in accordance with the approved trial burn plan, and shall submit the results of all the determinations required in subsection (f) above. This submission must be made within 90 days of completion of the trial burn, or later if approved by the Agency;
- h) All data collected during any trial burn must be submitted to the Agency following the completion of the trial burn;
- All submissions required by this paragraphsubsection must be certified on behalf of the applicant by the signature of a person authorized to sign a permit application or a report under 35 Ill. Adm. Code 702.126;
- j) Based on the results of the trial burn, the Agency shall set the operating requirements in the final permit according to 35 Ill. Adm. Code 724.445. The permit modification must proceed as a minor modification according to Section 703.280.

BOARD NOTE: Derived from 40 CFR 270.62(a) (198892), as amended at 538 Fed. Reg. 37934, September 28, 198846051 (Aug. 31, 1993).

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(Source: Amended at 18 Ill. Reg. \_\_\_\_, effective \_\_\_\_\_

Section 703.232 Permits for Boilers and Industrial Furnaces Burning Hazardous Waste

- a) General. Owners and operators of new boilers and industrial furnaces (those not operating under the interim status standards of 35 Ill. Adm. Code 726.203) are subject to subsection (b) through (f)<sub>7</sub> below. Boilers and industrial furnaces operating under the interim status standards of 35 Ill. Adm. Code 726.203 are subject to subsection (g)<sub>7</sub> below.
- b) Permit operating periods for new boilers and industrial furnaces.
  A permit for a new boiler or industrial furnace must specify appropriate conditions for the following operating periods:
  - 1) Pretrial burn period. For the period beginning with initial introduction of hazardous waste and ending with initiation of the trial burn, and only for the minimum time required to bring the boiler or industrial furnace to a point of operation readiness to conduct a trial burn, not to exceed 720 hours operating time when burning hazardous waste, the Agency shall establish in the Pretrial Burn Period of the permit conditions, including but not limited to allowable hazardous waste feed rates and operating conditions. The Agency shall extend the duration of this operational period once, for up to 720 additional hours, at the request of the applicant when good cause is shown. The permit most be modified to reflect the extension according to Section 703.280 et seq.
    - A) Applicants must submit a statement, with part B of the permit application, that suggests the conditions necessary to operate in compliance with the standards of 35 Ill. Adm. Code 726.204 through 726.207 during this period. This statement should include, at a minimum, restrictions on the applicable operating requirements identified in 35 Ill. Adm. Code 726.202 (e).
    - B) The Agency shall review this statement and any other relevant information submitted with part B of the permit application and specify requirements for this period sufficient to meet the performance standards of 35 Ill. Adm. Code 726.204 through 726.207 based on the Agency's engineering judgment.
  - 2) Trial burn period. For the duration of the trial burn, the Agency shall establish conditions in the permit for the purposes of determining feasibility of compliance with the performance standards of 35 Ill. Adm. Code 726.204 through 726.207 and determining adequate operating conditions under 35 Ill. Adm. Code 726.202(e). Applicants shall propose a trial burn plan, prepared under subsection (c)<sub>7</sub> below, to be submitted with part B of the permit application.
  - 3) Post-trial burn period.
    - A) For the period immediately following completion of the trial burn, and only for the minimum period sufficient to allow sample analysis, data computation and submission of the trial burn results by the applicant,

and review of the trial burn results and modification of the facility permit by the Agency to reflect the trial burn results, the Agency shall establish the operating requirements most likely to ensure compliance with the performance standards of 35 Ill. Adm. Code 726.204 through 726.207 based on the Agency's engineering judgment.

- B) Applicants shall submit a statement, with part B of the application, that identifies the conditions necessary to operate during this period in compliance with the performance standards of 35 Ill. Adm. Code 726.204 through 726.207. This statement should include, at a minimum, restrictions on the operating requirements provided by 35 Ill. Adm. Code 726.202 (e).
- C) The Agency shall review this statement and any other relevant information submitted with part B of the permit application and specify requirements of this period sufficient to meet the performance standards of 35 Ill. Adm. Code 726.204 through 726.207 based on the Agency's engineering judgment.
- 4) Final permit period. For the final period of operation the Agency shall develop operating requirements in conformance with 35 Ill. Adm. Code 726.202-(e) that reflect conditions in the trial burn plan and are likely to ensure compliance with the performance standards of 35 Ill. Adm. Code 726.204 through 726.207. Based on the trial burn results, the Agency shall make any necessary modifications to the operating requirements to ensure compliance with the performance standards. The permit modification must proceed according to Section 703.280 et seq.
- c) Requirements for trial burn plans. The trial burn plan must include the following information. The Agency, in reviewing the trial burn plan, shall evaluate the sufficiency of the information provided and may require the applicant to supplement this information, if necessary, to achieve the purposes of this subsection.
  - 1) An analysis of each feed stream, including hazardous waste, other fuels, and industrial furnace feed stocks, as fired, that includes:
    - A) Heating value, levels of antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, thallium, total chlorine/chloride and ash;
    - B) Viscosity or description of the physical form of the feed stream;
  - 2) An analysis of each hazardous waste, as fired, including:
    - A) An identification of any hazardous organic constituents listed in 35 Ill. Adm. Code 721.Appendix H that are present in the feed stream, except that the applicant need not analyze for constituents listed in App<u>-endix</u> H which<u>that</u> would reasonably not be expected to be found in the hazardous waste. The constituents excluded from analysis must be identified as the basis

for this exclusion explained. The analysis must be conducted in accordance with analytical techniques specified in <u>"Test Methods for the Evaluation of Solid</u> Waste, Physical/Chemical Methods<u>", U.S. EPA</u> <u>Publication SW-846, as (incorporated by reference, see at 35 Ill. Adm. Code 720.111 and Section 703.110, or their equivalent.)</u>

- B) An approximate quantification of the hazardous constituents identified in the hazardous waste, within the precision produced by the analytical methods specified in <u>"Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods", incorporated by reference at 35 Ill. Adm. Code 720.111 and Section 703.110, or other equivalent.</u>
- C) A description of blending procedures, if applicable, prior to firing the hazardous waste, including a detailed analysis of the hazardous waste prior to blending, an analysis of the material with which the hazardous waste prior to blending, an analysis of the material with which the hazardous waste is blended, and blending ratios.
- 3) A detailed engineering description of the boiler or industrial furnace, including:
  - A) Manufacturer's name and model number of the boiler or industrial furnace;
  - B) Type of boiler or industrial furnace;
  - C) Maximum design capacity in appropriate units;
  - D) Description of the Feed system for the hazardous waste, and as appropriate, other fuels and industrial furnace feedstocks;
  - E) Capacity of hazardous waste feed system;
  - F) Description of automatic hazardous waste feed cutoff
    system(s); and
  - G) Description of any pollution control system; and
  - H) Description of stack gas monitoring and any pollution control monitoring systems.
- 4) A detailed description of sampling and monitoring procedures including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency and sample analysis.
- 5) A detailed test schedule for each hazardous waste for which the trial burn is planned, including date(s), duration, quantity of hazardous waste to be burned, and other factors relevant to the Agency's decision under subsection (b)(2)<sub>T</sub> above.
- 6) A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feed rate, and, as appropriate, the feed rates of other fuels and

industrial furnace feedstocks, and any other relevant parameters that may affect the ability of the boiler or industrial furnace to meet the performance standards in 35 Ill. Adm. Code 726.204 through 726.207.

- 7) A description of and planned operating conditions for any emission control equipment that will be used.
- 8) Procedures for rapidly stopping ;the hazardous waste feed and controlling emissions in the event of an equipment malfunction.
- 9) Such other information as the Agency finds necessary to determine whether to approve the trial burn plan in light of the purposes of this subsection and the criteria in subsection (b)(2)<sub>T</sub> above.
- d) Trial burn procedures.
  - A trial burn must be conducted to demonstrate conformance with the standards of 35 Ill. Adm. Code 726.104 through 726.107.
  - 2) The Agency shall approve a trial burn plan if the Agency finds that:
    - A) The trial burn is likely to determine whether the boiler or industrial furnace can meet the performance standards of 35 Ill. Adm. Code 726.104 through 726.107.
    - B) The trial burn itself will not present an imminent hazard to human health and the environment;
    - C) The trial burn will help the Agency to determine operating requirements to be specified under 35 Ill. Adm. Code 726.102-(e); and
    - D) The information sought in the trial burn cannot reasonably be developed through other means.
  - 3) The applicant shall submit to the Agency a certification that the trial burn has been carried out in accordance with the approved trial burn plan, and submit the results of all the determinations required in subsection  $(c)_T$  above. The Agency shall, in the trial burn plan, require that the submission be made within 90 days after completion of the trial burn, or later if the Agency determines that a later date is acceptable.
  - 4) All data collected during any trial burn must be submitted to the Agency following completion of the trial burn.
  - 5) All submissions required by this subsection must be certified on behalf of the applicant by the signature of a person authorized to sign a permit application or a report under 35 Ill. Adm. Code 702.126.
- e) Special procedures for DRE trial burns. When a DRE trial burn is required under 35 Ill. Adm. Code 726.104, the Agency shall specify (based on the hazardous waste analysis data and other information in the trial burn plan) as trial Principal Organic Hazardous

Constituents (POHCs) those compounds for which destruction and removal efficiencies must be calculated during the trial burn. These trial POHCs will be specified by the Agency based on information including the Agency's estimate of the difficulty of destroying the constituents identified in the hazardous waste analysis, their concentrations or mass in the hazardous waste feed, and, for hazardous waste containing or derived from wastes listed in 35 Ill. Adm. Code 721.Subpart D, the hazardous waste organic constituent(s) identified in 35 Ill. Adm. Code 721.Appendix G as the basis for listing.

- f) Determinations based on trial burn. During each approved trial burn (or as soon after the burn as is practicable), the applicant shall make the following determinations:
  - 1) A quantitative analysis of the levels of antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, thallium, silver, and chlorine/chloride, in the feed streams (hazardous waste, other fuels, and industrial furnace feedstocks);
  - 2) When a DRE trial burn is required under 35 Ill. Adm. Code 726.204-(a):
    - A) A quantitative analysis of the trial POHCs in the hazardous waste feed;
    - B) A quantitative analysis of the stack gas for the concentration and mass emissions of the trial POHCs; and
    - C) A computation of (DRE), in accordance with the DRE formula specified in 35 Ill. Adm. Code 726.204-(a).
  - 3) When a trial burn for chlorinated dioxins and furans is required under 35 Ill. Adm. Code 726.204-(e), a quantitative analysis of the stack gas for the concentration and mass emission rate of the 2+,3,-7,-8-chlorinated tetra-octa congeners of chlorinated dibenzo-p-dioxins and furans, and a computation showing conformance with the emission standard.
  - 4) When a trial burn for PM, metals, or HCl/Chlorine gas is required under 35 Ill. Adm. Code 726.205, 726.206-(c) or (d) or 726.207-(b)-(2) or (c), a quantitative analysis of the stack gas for the concentrations and mass emissions of PM, metals, or HCl and chlorine gas and computations showing conformance with the applicable emission performance standards;
  - 5) When a trial burn for DRE, metals, and HCl/Chlorine gas is required under 35 Ill. Adm. Code 726.204-(a), 726.206-(c) or (d), or 726.207-(b)-(2) or (c), a quantitative analysis of the scrubber water (if any), ash residues, other residues, and products for the purpose of estimating the fate of the trial POHCs, metals, and chlorine/chloride;
  - An identification of sources of fugitive emissions and their means of control;
  - 7) A continuous measurement of carbon monoxide (CO), oxygen, and where required, hydrocarbons (HC), in the stack gas; and

- 8) Such other information as the Agency specifies as necessary to ensure that the trial burn will determine compliance with the performance standards 35 Ill. Adm. Code 726.204 through 726.207 and to establish the operating conditions required by 35 Ill. Adm. Code 726.204 through 726.207 and of determining adequate operating conditions under 35 Ill. Adm. Code 726.203, and to establish the operating conditions required by 35 Ill. Adm. Code 726.202(e) as necessary to meet those performance standards.
- Interim status boilers and industrial furnaces. for the purpose q) of determining feasibility of compliance with the performance standards of 35 Ill. Adm. Code 726.204 through 726.207 and of determining adequate operating conditions under 35 Ill. Adm. Code 726.203, applicants owning or operating existing boilers or industrial furnaces operated under the interim status standards of 35 Ill. Adm. Code 726.203 shall either prepare and submit a trial burn plan and perform a trial burn in accordance with the requirements of the Section or submit other information as specified in Section 703.208(a)(6). Applicants whothat submit a trial burn plan and receive approval before submission of the part B permit application shall complete the trial burn and submit the results specified in subsection  $(f)_{\tau}$  above<sub> $\tau$ </sub> with the part B permit application. If completion of this process conflicts with the date set for submission of the part B application, the applicant shall contact the Agency to establish a later date for submission of the part B application or the trial burn results. If the applicant submits a trial burn plan with part B of the permit application, the trial burn must be conducted and the results submitted within a time period prior to permit issuance to be specified by the Agency.

BOARD NOTE: Derived from 40 CFR 270.62 (1992), as amended at 58 Fed. Reg. 46051 (Aug. 31, 1993).

(Source: Amended at 18 Ill. Reg. \_\_\_\_, effective \_\_\_\_\_)

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

PART 720 HAZARDOUS WASTE MANAGEMENT SYSTEM: GENERAL

# SUBPART A: GENERAL PROVISIONS

| Section |   |  |  |  |
|---------|---|--|--|--|
| 720.101 | Purpose, Scope and Applicability                            |  |  |  |
| 720.102 | Availability of Information; Confidentiality of Information |  |  |  |
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|         | SUBPART B: DEFINITIONS                                      |  |  |  |
| Section |   |  |  |  |
| 720.110 | Definitions   |  |  |  |
| 720.111 | References  |  |  |  |
|         | SUBPART C: RULEMAKING PETITIONS AND OTHER PROCEDURES        |  |  |  |
| Section |   |  |  |  |
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- 720.120 Rulemaking 720.121 Alternative Equivale
- 720.121 Alternative Equivalent Testing Methods
- 720.122 Waste Delisting

- 720.130 Procedures for Solid Waste Determinations
- 720.131 Solid Waste Determinations
- 720.132 Boiler Determinations
- 720.133 Procedures for Determinations
- 720.140 Additional regulation of certain hazardous waste Recycling
- Activities on a case-by-case Basis
- 720.141 Procedures for case-by-case regulation of hazardous waste Recycling Activities

720. Appendix A Overview of 40 CFR, Subtitle C Regulations

AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1991, ch. 111<sup>1</sup>/<sub>2</sub>, pars. 1022.4 and 1027 [415 ILCS 5/22.4 and 27]).

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 October 12, 1983; amended in R84-9, 53 PCB 131 at 9 Ill. Reg. 11819, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 968, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 13998, effective August 12, 1986; amended in R86-19 at 10 Ill. Reg. 20630, effective December 2, 1986; amended in R86-28 at 11 Ill. Reg. 6017, effective March 24, 1987; amended in R86-46 at 11 Ill. Reg. 13435, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19280, effective November 12, 1987; amended in R87-26 at 12 Ill. Reg. 2450, effective January 15, 1988; amended in R87-39 at 12 Ill. Reg. 12999, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 362, effective December 27, 1988; amended in R89-1 at 13 Ill. Reg. 18278, effective November 13, 1989; amended in R89-2 at 14 Ill. Reg. 3075, effective February 20, 1990; amended in R89-9 at 14 Ill. Reg. 6225, effective April 16, 1990; amended in R90-10 at 14 Ill. Reg. 16450, effective September 25, 1990; amended in R90-17 at 15 Ill. Reg. 7934, effective May 9, 1991; amended in R90-11 at 15 Ill. Reg. 9323, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14446, effective September 30, 1991; amended in R91-13 at 16 Ill. Reg. 9489, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg. 17636, effective November 6, 1992; amended in R92-10 at 17 Ill. Reg. 5625, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20545, \_ Ill. Reg. effective November 22, 1993; amended in R93-16 at effective ; amended in R94-7 at Ill. Req. effective

### SUBPART B: DEFINITIONS

Section 720.111 References

a) The following publications are incorporated by reference:

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

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

ACI. Available from the American Concrete Institute, Box 19150, Redford Station, Detroit, Michigan 48219:

ACI 318-83: "Building Code Requirements for Reinforced Concrete", adopted September, 1983.

API. Available from the American Petroleum Institute, 1220 L Street, N.W., Washington, D.C. 20005, (202) 682-8000: "Guide for Inspection of Refinery Equipment, Chapter XIII, Atmospheric and Low Pressure Storage Tanks," 4th Edition, 1981, reaffirmed December, 1987.

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

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

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

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

ASME. Available from the American Society of Mechanical Engineers, 345 East 47th Street, New York, NY 10017, (212) 705-7722:

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

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

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

ASTM C94-90, Standard Specification for Ready-Mixed Concrete, approved March 30, 1990.

ASTM D88-87, Standard Test Method for Saybolt Viscosity, April 24, 1981, reapproved January, 1987.

ASTM D93-85, Standard Test Methods for Flash Point by Pensky-Martens Closed Tester, approved October 25, 1985.

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

ASTM D2161-87, Standard Practice for Conversion of Kinematic Viscosity to Saybolt Universal or to Saybolt Furol Viscosity, March 27, 1987.

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

ASTM D2382-88, Standard Test Method for Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High Precision Method), approved October 31, 1988. ASTM D2879-86, Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, approved October 31, 1986.

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

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

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

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

ASTM E926-88 C, Standard Test Methods for Preparing Refuse-Derived Fuel (RDF) Samples for Analysis of Metals, Bomb-Acid Digestion Method, approved March 25, 1988.

ASTM Method G21-70 (1984a) -- Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi

ASTM Method G22-76 (1984b) -- Standard Practice for Determining Resistance of Plastics to Bacteria.

**GPO.** Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 2040<u>+2</u>, (202) -783-3238):

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

"Test Methods for Evaluating Solid Waste, Physical/ Chemical Methods," U.S. EPA Publication number SW-846 (Third Edition, September 1986), as amended by Update I (July 1992) (Document Number 955-001-00000-1).

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

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

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

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

NTIS. Available from the <u>U.S. Department of Commerce</u>, National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, (703) 487-4600:

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

"Guidance on Air Quality Models", Revised 1986. (Document number PB86-245-248 (Guideline) and PB88-150-958 (Supplement)).

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

"Methods Manual for Compliance with BIF Regulations", December, 1990. (Document number PB91-120-006).

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

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

"Screening Procedures for Estimating the Air Quality Impact of Stationary Sources", AugustOctober, 198892, (Document nPublication Number PB89-159396)EPA-450/R-92-019.

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

"Test Methods for Evaluating Solid Waste, Physical/ Chemical Methods," EPA Publication number SW-846 (Third Edition, September 1986 (Document number PB88-239223) as amended by Revision I (Deember 1987) and First Update, January, 1988) (Document Number PB89-148076)).

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

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

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

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

U.S. EPA. Available from U.S. EPA, Number F-90-WPWF-FFFFF, Room M2427, 401 M Street SW, Washington, D.C. 20460, (202) 475-9327:

"Test Method 8290: Procedures for the Detection and

Measurement of PCDDs and PCDFs", EPA/530-SW-91-019 (January, 1991)

U.S. EPA. Available from Receptor Analysis Branch, U.S. EPA (MD-14), Research Triangle Park, NC 27711:

"Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised", October, 1992, Publication Number EPA-450/R-92-019.

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

10 CFR 20, Appendix B (1992)

40 CFR 51.100(ii) (1992)

40 CFR 51, Subpart W, as added at 58 Fed. Reg. 38822 (July 20, 1993)

- 40 CFR 60 (199<del>2</del>3)
- 40 CFR 61, Subpart V (19923)
- 40 CFR 136 (19923)
- 40 CFR 142 (19923)
- 40 CFR 220 (1992)
- 40 CFR 260.20 (1992)
- 40 CFR 264 (1992)
- 40 CFR 268. Appendix IX (1992)
- 40 CFR 302.4, 302.5 and 302.6 (1992)
- 40 CFR 761 (19913)

c) Federal Statutes

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

d) This Section incorporates no later editions or amendments.

(Source: Amended at 18 Ill. Reg. \_\_\_\_, effective \_\_\_\_\_)

SUBPART C: RULEMAKING PETITIONS AND OTHER PROCEDURES

Section 720.122 Waste Delisting

- a) Any person seeking to exclude a waste from a particular generating facility from the lists in 35 Ill. Adm. Code 721.Subpart D may file a petition, as specified in subsection (n) below. The Board will grant the petition if:
  - 1) The petitioner demonstrates that the waste produced by a particular generating facility does not meet any of the

criteria under which the waste was listed as a hazardous or acute hazardous waste; and

- 2) If the Board determines that there is a reasonable basis to believe that factors (including additional constituents) other than those for which the waste was listed could cause the waste to be a hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste. A Board determination under the preceding sentence must be made by reliance on, and in a manner consistent with, "Petitions to Delist--A Guidance Manual", incorporated by reference in Section 720.111. A waste which that is so excluded, however, still may be a hazardous waste by operation of 35 Ill. Adm. Code 721.Subpart C.
- Listed wastes and mixtures. A person may also petition the Board to exclude from 35 Ill. Adm. Code 721.103(a)(2)(B) or (a)(2)(C), a waste which that is described in these Sections and is either a b) waste listed in 35 Ill. Adm. Code 721.Subpart D, or is derived from a waste listed in that Subpart. This exclusion may only be granted for a particular generating, storage, treatment or disposal facility. The petitioner shall make the same demonstration as required by subsection (a) above. Where the waste is a mixture of a solid waste and one or more listed hazardous wastes or is derived from one or more listed hazardous wastes, the demonstration must be made with respect to the waste mixture as a whole; analyses must be conducted for not only those constituents for which the listed waste contained in the mixture was listed as hazardous, but also for factors (including additional constituents) that could cause the waste mixture to be a hazardous waste. A waste which that is so excluded may still be a hazardous waste by operation of 35 Ill. Adm. Code 721. Subpart C.
- c) Ignitable, corrosive, reactive and toxicity characteristic wastes. If the waste is listed in codes "I", "C", "R" or "E" in 35 Ill. Adm. Code 721.Subpart D:
  - 1) The petitioner shall demonstrate that the waste does not exhibit the relevant characteristic for which the waste was listed, as defined in 35 Ill. Adm. Code 721.121, 721.122, 721.123 or 721.124, using any applicable methods prescribed in those Sections. The petitioner shall also show that the waste does not exhibit any of the other characteristics, defined in those Sections, using any applicable methods prescribed in those Sections;
  - 2) Based on a complete petition, the Board will determine, if it has a reasonable basis to believe that factors (including additional constituents) other than those for which the waste was listed could cause the waste to be hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste. A Board determination under the preceding sentence must be made by reliance on, and in a manner consistent with, "Petitions to Delist--A Guidance Manual", incorporated by reference in Section 720.111. A waste whichthat is so excluded, however, may still be a hazardous waste by operation of 35 Ill. Adm. Code 721.Subpart C.
- d) Toxic waste. If the waste is listed in code "T" in 35 Ill. Adm. Code 721.Subpart D:

- 1) The petitioner shall demonstrate that the waste:
  - A) Does not contain the constituent or constituents (as defined in 35 Ill. Adm. Code 721.Appendix G) that caused U\_S. EPA to list the waste, using the appropriate test methods prescribed in 35 Ill. Adm. Code 721.Appendix G"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", U.S. EPA Publication SW-846, as incorporated by reference in Section 720.111; or
  - B) Although containing one or more of the hazardous constituents (as defined in 35 Ill. Adm. Code 721.Appendix G) that caused U.S. EPA to list the waste, does not meet the criterion of 35 Ill. Adm. Code 721.111(a)(3) when considering the factors used in 35 Ill. Adm. Code 721.111(a)(3)(A) through (K) under which the waste was listed as hazardous; and
- 2) Based on a complete petition, the Board will determine, if it has a reasonable basis to believe that factors (including additional constituents) other than those for which the waste was listed could cause the waste to be hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste.
- 3) The petitioner shall demonstrate that the waste does not exhibit any of the characteristics, defined in 35 Ill. Adm. Code 721.121, 721.122, 721.123 or 721.124, using any applicable methods prescribed in those Sections.
- 4) A waste whichthat is so excluded, however, may still be a hazardous waste by operation of 35 Ill. Adm. Code 721.Subpart C.
- e) Acute hazardous waste. If the waste is listed with the code "H" in 35 Ill. Adm. Code 721.Subpart D:
  - 1) The petitioner shall demonstrate that the waste does not meet the criterion of 35 Ill. Adm. Code 721.111(a)(2); and
  - 2) Based on a complete petition, the Board will determine, if it has a reasonable basis to believe that factors (including additional constituents) other than those for which the waste was listed could cause the waste to be hazardous waste, that such factors do not warrant retaining the waste as a hazardous waste. A Board determination under the preceding sentence must be made by reliance on, and in a manner consistent with, "Petitions to Delist--A Guidance Manual", incorporated by reference in Section 720.111.
  - 3) The petitioner shall demonstrate that the waste does not exhibit any of the characteristics, defined in 35 Ill. Adm. Code 721.121, 721.122, 721.123 or 721.124, using any applicable methods prescribed in those Sections.
  - 4) A waste whichthat is so excluded, however, may still be a hazardous waste by operation of 35 Ill. Adm. Code 721.Subpart C.
- h) Demonstration samples must consist of enough representative samples, but in no case less than four samples, taken over a

period of time sufficient to represent the variability or the uniformity of the waste.

- i) Each petition must include, in addition to the information required by subsection (n) <u>below</u>:
  - The name and address of the laboratory facility performing the sampling or tests of the waste;
  - 2) The names and qualifications of the persons sampling and testing the waste;
  - 3) The dates of sampling and testing;
  - 4) The location of the generating facility;
  - 5) A description of the manufacturing processes or other operations and feed materials producing the waste and an assessment of whether such processes, operations or feed materials can or might produce a waste which that is not covered by the demonstration;
  - 6) A description of the waste and an estimate of the average and maximum monthly and annual quantities of waste covered by the demonstration;
  - 7) Pertinent data on and discussion of the factors delineated in the respective criterion for listing a hazardous waste, where the demonstration is based on the factors in 35 Ill. Adm. Code 721.111(a)(3);
  - 8) A description of the methodologies and equipment used to obtain the representative samples;
  - 9) A description of the sample handling and preparation techniques, including techniques used for extraction, containerization and preservation of the samples;
  - 10) A description of the tests performed (including results);
  - 11) The names and model numbers of the instruments used in performing the tests; and
  - 12) The following statement signed by the generator or the generator's authorized representative:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this demonstration and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

- j) After receiving a petition, the Board may request any additional information which that the Board needs to evaluate the petition.
- k) An exclusion will only apply to the waste generated at the individual facility covered by the demonstration and will not

apply to waste from any other facility.

1) The Board will exclude only part of the waste for which the demonstration is submitted if the Board determines that variability of the waste justifies a partial exclusion.

BOARD NOTE: See "Petitions to Delist Hazardous Wastes -- A Guidance Manual", incorporated by reference in Section 720.111.

- m) Delisting of specific wastes from specific sources whichthat have been adopted by U.S. EPA may be proposed as State regulations whichthat are identical in substance pursuant to Section 720.120(a).
- n) Delistings which that have not been adopted by U.S. EPA may be proposed to the Board pursuant to a petition for adjusted standard pursuant to 35 Ill. Adm. Code 106.Subpart G. The justification for the adjusted standard is as specified in subsections (a) et sequthrough (g) above, as applicable to the waste in question. The petition must be clearly labeled as a RCRA delisting adjusted standard petition.
  - 1) In accordance with 35 Ill. Adm. Code 106.710, the petitioner shall serve copies of the petition, and any other documents filed with the Board, on U.S.\_EPA at the following addresses:

U<u>.S.</u>EPA Office of Solid Waste and Emergency Response Washington, D.C. 20460

U.S. EPA, Region V 230 S. Dearborn Street Chicago, IL 60604

- The Board will mail copies of all opinions and orders to U.S. EPA at the above addresses.
- 3) In conjunction with the normal updating of the RCRA regulations, the Board will maintain, in 35 Ill. Adm. Code 721.Appendix I, a listing of all adjusted standards granted by the Board.
- o) The Agency may determine in a permit or a letter directed to a generator that, based on 35 Ill. Adm. Code 721, a waste from a particular source is not subject to these regulations. Such a finding is evidence against the Agency in any subsequent proceedings but shall not be conclusive with reference to other persons or the Board.
- p) Any petition to delist directed to the Board or request for determination directed to the Agency must include a showing that the waste will be generated or managed in Illinois.
- q) The Board will not grant any petition which that would render the Illinois RCRA program less stringent than if the decision were made by U.S. EPA.
- r) Delistings apply only within Illinois. Generators shall comply with 35 Ill. Adm. Code 722 for waste which that is hazardous in any state to which it is to be transported.

(Source: Amended at 18 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

|  | SUDPART A: GENERAL PROVISIONS  |
|--|--|
| Section  |  |
| 721.101  | Purpose and Scope  |
| 721.102  | Definition of Solid Waste  |
| 721.103  | Definition of Hazardous Waste  |
| 721.104  | Exclusions   |
| 721.105  | Special Requirements for Hazardous Waste Generated by Small  |
|  | Quantity Generators  |
| 721.106  | Requirements for Recyclable Materials  |
| 721.107  | Residues of Hazardous Waste in Empty Containers  |
| 721.108  | PCB Wastes Regulated under TSCA  |
| /=   |  |
|  | SUBPART B: CRITERIA FOR IDENTIFYING THE CHARACTERISTICS  |
|  | OF HAZARDOUS WASTE AND FOR LISTING HAZARDOUS WASTES  |
| Section  |  |
| 721,110  | Criteria for Identifying the Characteristics of Hazardous Waste  |
| 721 111  | Criteria for Listing Hazardous Waste   |
| / 4. 7 • 7 • 7   | Ciferia for Disting Mazardous waste  |
|  | SUBDADT C. CUADACTEDISTICS OF UAZADOOUS WASTE  |
| Section  | SUBFACE C. CHARACIERISTICS OF INFAMDOUS WASTE  |
| 721 120  | Ceneral  |
| 721.120  | Characteristic of Ignitability   |
| 721.121  | Characteristic of Correspirity   |
| 721.122  | Characteristic of Boactivity   |
| 721.123  | Toxicity Characteristic  |
| /21.124  |  |
|  |  |
|  | SUBDART D. I ISTS OF HAVARDOUS WASTE   |
| Section  | SUBPART D: LISTS OF HAZARDOUS WASTE  |
| Section  | SUBPART D: LISTS OF HAZARDOUS WASTE  |
| Section<br>721.130   | SUBPART D: LISTS OF HAZARDOUS WASTE<br>General   |
| Section<br>721.130<br>721.131<br>721.132   | SUBPART D: LISTS OF HAZARDOUS WASTE<br>General<br>Hazardous Wastes From Nonspecific Sources  |
| Section<br>721.130<br>721.131<br>721.132<br>721.132  | SUBPART D: LISTS OF HAZARDOUS WASTE<br>General<br>Hazardous Wastes From Nonspecific Sources<br>Hazardous Waste from Specific Sources   |
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| Section<br>721.130<br>721.131<br>721.132<br>721.133<br>721.135<br>721.Appendix<br>721.Appendix<br>721.Appendix<br>721.Appendix<br>721.Appendix<br>721.Appendix<br>721.Appendix<br>721.Appendix<br>721.Appendix<br>721.Appendix<br>721.Appendix<br>721.Appendix | SUBPART D: LISTS OF HAZARDOUS WASTE<br>General<br>Hazardous Wastes From Nonspecific Sources<br>Hazardous Waste from Specific Sources<br>Discarded Commercial Chemical Products, Off-Specification Species,<br>Container Residues and Spill Residues Thereof<br>Wood Preserving Wastes<br>C A Representative Sampling Methods<br>C B Method 1311 Toxicity Characteristic Leaching Procedure<br>(TCLP)<br>C C Chemical Analysis Test Methods<br>A Analytical Characteristics of Organic Chemicals (Repealed)<br>B Analytical Characteristics of Inorganic Species (Repealed)<br>C Sample Preparation/Sample Introduction Techniques (Repealed)<br>C Sample Preparation/Sample Introduction Techniques (Repealed)<br>C Sample Section 720.120 and 720.122<br>A Wastes Excluded under Section 720.120 and 720.122<br>A Wastes Excluded from Non-Specific Sources<br>B Wastes Excluded From Commercial Chemical Products, Off-  |
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721.Appendix J Method of Analysis for Chlorinated Dibenzo-p-Dioxins and Dibenzofurans (Repealed)
 721.Appendix Z Table to Section 721.102

AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1991, ch. 111½, pars. 1022.4 and 1027 [415 ILCS 5/22.4 and 27]).

SOURCE: Adopted in R81-22, 43 PCB 427, at 5 Ill. Reg. 9781, effective as noted in 35 Ill. Adm. Code 700.106; amended and codified in R81-22, 45 PCB 317, at 6 Ill. Reg. 4828, effective as noted in 35 Ill. Adm. Code 700.106; amended in R82-18, 51 PCB 31, at 7 Ill. Reg. 2518, effective February 22, 1983; amended in R82-19, 53 PCB 131, at 7 Ill. Reg. 13999, effective October 12, 1983; amended in R84-34, 61 PCB 247, at 8 Ill. Reg. 24562, effective December 11, 1984; amended in R84-9, at 9 Ill. Reg. 11834, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 998, effective January 2, 1986; amended in R85-2 at 10 Ill. Reg. 8112, effective May 2, 1986; amended in R86-1 at 10 Ill. Reg. 14002, effective August 12, 1986; amended in R86-19 at 10 Ill. Reg. 20647, effective December 2, 1986; amended in R86-28 at 11 Ill. Reg. 6035, effective March 24, 1987; amended in R86-46 at 11 Ill. Reg. 13466, effective August 4, 1987; amended in R87-32 at 11 Ill. Reg. 16698, effective September 30, 1987; amended in R87-5 at 11 Ill. Reg. 19303, effective November 12, 1987; amended in R87-26 at 12 Ill. Reg. 2456, effective January 15, 1988; amended in R87-30 at 12 Ill. Reg. 12070, effective July 12, 1988; amended in R87-39 at 12 Ill. Reg. 13006, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 382, effective December 27, 1988; amended in R89-1 at 13 Ill. Reg. 18300, effective November 13, 1989; amended in R90-2 at 14 Ill. Reg. 14401, effective August 22, 1990; amended in R90-10 at 14 Ill. Reg. 16472, effective September 25, 1990; amended in R90-17 at 15 Ill. Reg. 7950, effective May 9, 1991; amended in R90-11 at 15 Ill. Reg. 9332, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14473, effective September 30, 1991; amended in R91-12 at 16 Ill. Reg. 2155, effective January 27, 1992; amended in R91-26 at 16 Ill. Reg. 2600, effective February 3, 1992; amended in R91-13 at 16 Ill. Reg. 9519, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg. 17666, effective November 6, 1992; amended in R92-10 at 17 Ill. Reg. 5650, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20568, effective November 22, 1993; amended in R93-16 at Ill. Reg. , effective <u>T11. Reg.</u> ; amended in R94-7 at effective

# SUBPART C: CHARACTERISTICS OF HAZARDOUS WASTE

Section 721.122 Characteristic of Corrosivity

- a) A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:
  - 1) It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using either an EPA test method or an equivalent test method (35 Ill. Adm. Code 720.121). The EPA test methods for pH are specified as Methods 9040, 9041 or 9045 in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods", incorporated by reference in 35 Ill. Adm. Code 720.111.
  - 2) It is a liquid and corrodes steel (SAE 1020) at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55° C (130° F) as determined by the test method specified in NACE (National Association of Corrosion

Engineers) Standard TM-01-69 as standardized in "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods", incorporated by reference in 35 Ill. Adm. Code 720.111, or an equivalent test method (35 Ill. Adm. Code 720.121).

BOARD NOTE: The corrosivity characteristic determination currently does not apply to non-liquid wastes, as discussed by U.S. EPA at 45 Fed. Reg. 33109, May 19, 1980 and at 55 Fed. Reg. 22549, June 1, 1990.

b) A solid waste that exhibits the characteristic of corrosivity has the U.S. EPA Hazardous Waste Number of D002.

(Source: Amended at 18 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 721.124 Toxicity Characteristic

a) A solid waste exhibits the characteristic of toxicity if, using the test methods described in Appendix B or equivalent test methods approved by the Agency under the procedures set forth in Sections 720.120 and 720.121Toxicity Characteristic Leaching Procedure (TCLP), test Method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", U.S. EPA Publication SW-846, as incorporated by reference in 35 Ill. Adm. Code 720.111, the extract from a representative sample of the waste contains any of the contaminants listed in the table in subsection (b) below at a concentration equal to or greater than the respective value given in that table. Where the waste contains less than 0.5 percent filterable solids, the waste itself, after filtering using the methodology outlined in Appendix BMethod 1311, is considered to be the extract for the purpose of this Section.

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

b) A solid waste that exhibits the characteristic of toxicity has the U.S. EPA Hazardous Waste Number specified in the following table which that corresponds to the toxic contaminant causing it to be hazardous.

# MAXIMUM CONCENTRATION OF CONTAMINANTS FOR THE TOXICITY CHARACTERISTIC

| Contaminant | CAS<br>Number  | Note   | Regulatory<br>Level(mg/L)   |
|-------------|--|--|---|
| Arsenic     | 7440-38-2  |  | 5.0   |
| Barium      | 7440-39-3  |  | 100.0   |
| Benzene     | 71-43-2  |  | 0.5   |
| Cadmium     | 7440-43-9  |  | 1.0   |
|             | Contaminant<br>Arsenic<br>Barium<br>Benzene<br>Cadmium | CAS<br>Number<br>Arsenic 7440-38-2<br>Barium 7440-39-3<br>Benzene 71-43-2<br>Cadmium 7440-43-9 | CAS<br>Number Note<br>Arsenic 7440-38-2<br>Barium 7440-39-3<br>Benzene 71-43-2<br>Cadmium 7440-43-9 |

| D019         | Carbon tetra-       | 56-23-5   |   | 0.5   |
|--------------|---------------------|-----------|---|-------|
| D020         | Chlordane           | 57-74-9   |   | 0.03  |
| D021         | Chlorobenzene       | 108-90-7  |   | 100.0 |
| D022         | Chloroform          | 67-66-3   |   | 6.0   |
| D007         | Chromium            | 7440-47-3 |   | 5.0   |
| D023         | o-Cresol            | 95-48-7   | 4 | 200.0 |
| D024         | m-Cresol            | 108-39-4  | 4 | 200.0 |
| D025         | n-Cresol            | 106-44-5  | 4 | 200.0 |
| D025         | Cresol              | 100-44 2  | 4 | 200.0 |
| D020         | 2 4-D               | 94-75-7   | 7 | 10 0  |
| D010         | 1 A-Dichlorobenzene | 106-46-7  |   | 7 5   |
| D027         | 1 2-Dichloroethano  | 107-06-2  |   | 0.5   |
| D020         | 1 1-Dichloro-       | 75-25-4   |   | 0.5   |
| D029         | ethylene            | /5-35-4   |   | 0.7   |
| D030         | 2,4-Dinitrotoluene  | 121-14-2  | 3 | 0.13  |
| D012         | Endrin              | 72-20-8   |   | 0.02  |
| D031         | Heptachlor (and its | 76-44-8   |   | 0.008 |
|              | epoxide)            |           |   |       |
| D032         | Hexachlorobenzene   | 118-74-1  | 3 | 0.13  |
| D033         | Hexachlorobutadiene | 87-68-3   |   | 0.5   |
| D034         | Hexachloroethane    | 67-72-1   |   | 3.0   |
| D008         | Lead                | 7439-92-1 |   | 5.0   |
| D013         | Lindane             | 58-89-9   |   | 0.4   |
| D009         | Mercury             | 7439-97-6 |   | 0.2   |
| D014         | Methoxychlor        | 72-43-5   |   | 10.0  |
| D035         | Methyl ethyl ketone | 78-93-3   |   | 200.0 |
| D036         | Nitrobenzene        | 98-95-3   |   | 2.0   |
| D037         | Pentachlorophenol   | 87-86-5   |   | 100.0 |
| 038          | Pyridine            | 110-86-1  | 3 | 5 0   |
| D010         | Selenium            | 7782-49-2 | 5 | 1 0   |
| D011         | Silver              | 7440-22-4 |   | 5.0   |
| D039         | Tetrachloroethylene | 127-18-4  |   | 0.7   |
| D015         | Tovanhene           | 8001-35-2 |   | 0.5   |
| D010         | Trichloroethylene   | 79-01-6   |   | 0.5   |
| D040<br>D041 | 2 4 5-Trichloro-    | 95-95-1   |   | 400 0 |
| 0041         | phenol              | JJ=JJ=4   |   | 400.0 |
| D042         | 2,4,6-Trichloro-    | 88-06-2   |   | 2.0   |
|              | phenol              |           |   |       |
| D017         | 2,4,5-TP (Silvex)   | 93-72-1   |   | 1.0   |
| D043         | Vinyl chloride      | 75-01-4   |   | 0.2   |
|              | <b>m</b> = 1 + 3 =  |           |   |       |

Notes to Table:

- 3 Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.
- 4 If o-, m-, p-cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total cresol is 200.0 mg/L.

(Source: Amended at 18 Ill. Reg. \_\_\_\_, effective \_\_\_\_\_)

<u>721.Appendix B+</u> Method 1311 Toxicity Characteristic Leaching Procedure (TCLP)

The Board incorporates by reference 40 GFR 261, Appendix II, as amended at 57 Fed. Reg. 55114-55117, November 24, 1992 and 58 Fed. Reg. 6854. This Section incorportes no future editions or modifications. NOTE: The TCLP (Method 1311) is published in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", U.S. EPA Publication SW-846, as

incorporated by reference in 35 Ill. Adm. Code 720.111.

(Source: Amended at 18 Ill. Reg. \_\_\_\_, effective \_\_\_\_\_)

721.Appendix C+ Chemical Analysis Test Methods

The Board incorporates by reference 40 GFR 261, Appendix III (1990), as amended at 55 Fed. Reg. 50483, December 6, 1990. This Section incorporates no future editions or modifications.

NOTE: Appropriate analytical procedures to determine whether a sample contains a given toxic constituent are specified in Chapter Two, "Choosing the Correct Procedure", found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", U.S. EPA Publication SW-846, as incorporated by reference in 35 Ill. Adm. Code 720.111. Prior to final sampling and analysis method selection, the individual should consult the specific section or method described in SW-846 for additional guidance on which of the approved methods should be employed for a specific sample analysis situation.

(Source: Amended at 18 Ill. Reg. , effective )

<u>721.Appendix J+</u> Method of Analysis for Chlorinated Dibenzo-p-Dioxins and Dibenzofurans (Repealed)

The Board incorporates by reference 40 GFR 261, Appendix X (1985). This Part incorporates no future revisions or editions.

(Source: Repealed at 18 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_\_

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

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

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R86-28 at 11 Ill. Reg. 6138, effective March 24, 1987; amended in R86-28 at 11 Ill. Reg. 8684, effective April 21, 1987; amended in R86-46 at 11 Ill. Reg. 13577, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19397,

# SUBPART J: TANK SYSTEMS

### Section 724.290 Applicability

The requirements of this Subpart apply to owners and operators of facilities that use tank systems for storing or treating hazardous waste, except as otherwise provided in subsections (a), (b) or (c) below or in Section 724.101.

- a) Tank systems that are used to store or treat hazardous waste whichthat contains no free liquids and are situated inside a building with an impermeable floor are exempted from the requirements in Section 724.293. To demonstrate the absence or presence of free liquids in the stored or treated waste, the following test must be used: U.S. EPA Method 9095 (Paint Filter Liquids Test), as described in "Test Methods for Evaluating Solid Wastes Physical/Chemical Methods" U.S. EPA Publication No. SW-846), incorporated by reference in 35 Ill. Adm. Code 720.1117 must be used.
- b) Tank systems, including sumps, are defined in 35 Ill. Adm. Code 720.110, that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempted from the requirements in Section 724.293(a).
- c) Tanks, sumps and other such collection devices or systems used in conjunction with drip pads, as defined in 35 Ill. Adm. Code 720.110 and regulated under Subpart W of this Part, must meet the requirements of this Subpart.

(Source: Amended at 18 Ill. Reg. \_\_\_\_, effective \_\_\_\_\_)

# SUBPART N: LANDFILLS

Section 724.414 Special Requirements for Bulk and Containerized Liquids

- a) This subsection corresponds with 40 CFR 264.314(a), which pertains to pre May 8, 1985 actions, a date long since passed. This statement maintains structural consistency with U.S. EPA rules.
- b) The placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids (whether or not sorbents have been added) in any landfill is prohibited.
- 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-"\_ <u>(U.S.</u>EPA Publication No. SW-846, incorporated by reference in 35 Ill. Adm. Code 721.111.

- d) 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 sorbent 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.
- e) Sorbents used to treat free liquids to be disposed of in landfills must be nonbiodegradable. Nonbiodegradable sorbents are: materials listed or described in subsection (e)(1) below; materials that pass one of the tests in subsection (e)(2) below; or materials that are determined by the Board to be nonbiodegradable through the 35 Ill. Adm. Code 106 adjusted standard process.
  - 1) Nonbiodegradable sorbents are:
    - A) Inorganic minerals, other inorganic materials, and elemental carbon (e.g., aluminosilicates, clays, smectites, Fuller's earth, bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas (illite), vermiculites, zeolites; calcium carbonate (organic free limestone); oxides/ hydroxides, alumina, lime, silica (sand), diatomaceous earth; perlite (volcanic glass); expanded volcanic rock; volcanic ash; cement kiln dust; fly ash; rice hull ash; activated charcoal (activated carbon)); or
    - B) High molecular weight synthetic polymers (e.g., polyethylene, high density polyethylene (HDPE), polypropylene, polystrene, poly urethane, polycrylate, polynorborene, polyisobutylene, ground synthetic rubber, cross-linked allylstrene and tertiary butyl copolymers). This does not include polymers derived from biological material or polymers specifically designed to be degradable; or
    - C) Mixtures of these nonbiodegradable materials.
  - 2) Tests for nonbiodegradable sorbents:
    - A) The sorbent material is determined to be nonbiodegradable under ASTM Method G21-70 (1984a)- <u>"Standard Practice for Determining Resistance of</u> Synthetic Polymer Materials to Fungi", incorporated by
# reference in 35 Ill. Adm. Code 721.111; or

- B) The sorbent material is determined to be nonbiodegradable under ASTM Method G22-76 (1984b)--"Standard Practice for Determining Resistance of Plastics to Bacteria", incorporated by reference in 35 Ill. Adm. Code 721.111.
- f) The placement of any liquids which that is not a hazardous waste in a landfill is prohibited (35 Ill. Adm. Code 729.311).

(Source: Amended at 18 Ill. Reg. \_\_\_\_, effective \_\_\_\_\_)

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

PART 725 INTERIM STATUS STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE TREATMENT, STORAGE AND DISPOSAL FACILITIES

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| AUTHORITY:   | Implem | enting  | Section   | 22.4   | and  | authorized  | by   | Section | 27 | of |  |

AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1991, ch. 111½, pars. 1022.4 and 1027 [415 ILCS 5/22.4 and 27]).

SOURCE: Adopted in R81-22, 43 PCB 427, at 5 Ill. Reg. 9781, effective as noted in 35 Ill. Adm. Code 700.106; amended and codified in R81-22, 45 PCB 317, at 6 Ill. Reg. 4828, effective as noted in 35 Ill. Adm. Code 700.106; amended in R82-18, 51 PCB 831, at 7 Ill. Reg. 2518, effective February 22, 1983; amended in R82-19, 53 PCB 131, at 7 Ill. Reg. 14034, effective October 12, 1983; amended in R84-9, at 9 Ill. Reg. 11869, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 1085, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 14069, effective August 12, 1986; amended in R86-28 at 11 Ill. Reg. 6044, effective March 24, 1987; amended in R86-46 at 11 Ill. Reg. 13489, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19338, effective November 10, 1987; amended in R87-26 at 12 Ill. Reg. 2485, effective January 15, 1988; amended in R87-39 at 12 Ill. Reg. 13027, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 437, effective December 28, 1988; amended in R89-1 at 13 Ill. Reg. 18354, effective November 13, 1989; amended in R90-2 at 14 Ill. Reg. 14447, effective August 22, 1990; amended in R90-10 at 14 Ill. Reg. 16498, effective September 25, 1990; amended in R90-11 at 15 Ill. Reg. 9398, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14534, effective October 1, 1991; amended in R91-13 at 16 Ill. Reg. 9578, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg. 17672, effective November 6, 1992; amended in R92-10 at 17 Ill. Reg. 5681, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20620, effective November 22, 1993; amended in R93-16 at Ill. Reg. , effective ; amended in R94-7 at Ill. Req. , effective

#### SUBPART J: TANK SYSTEMS

# Section 725.290 Applicability

The regulations of this Subpart apply to owners and operators of facilities that use tank systems for storing or treating hazardous waste, except as

otherwise provided in subsections (a), (b) or (c) below, or in Section 725.101.

- Tank systems that are used to store or treat hazardous waste a) which that contains no free liquids and that are situated inside a building with an impermeable floor are exempted from the requirements in Section 725.293. To demonstrate the absence or presence of free liquids in the stored / or treated waste, the following test must be used: U.S. EPA Method 9095 (Paint Filter Liquids Test), as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", (U.S. EPA Publication No. SW-846), incorporated by reference in 35 Ill. Adm. Code 720.1117 must be used.
- Tank systems, including sumps, as defined in 35 Ill. Adm. Code b) 720.110, that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempted from the requirements in Section 725.293(a).
- Tanks, sumps and other collection devices used in conjunction with C) drip pads, as defined in 35 Ill. Adm. Code 720.110 and regulated under Subpart W of this Part, must meet the requirements of this Subpart.

(Source: Amended at 18 Ill. Reg. \_\_\_\_, effective \_\_\_\_\_)

# SUBPART N: LANDFILLS

Special Requirements for Liquid Wastes Section 725.414

- a) This subsection corresponds with 40 CFR 265.314(a), which pertains to the placement of bulk or non-containerized liquid waste or waste containing free liquids in a landfill prior to May 8, 1985. This statement maintains structural consistency with U.S. EPA rules.
- The placement of bulk or non-containerized liquid hazardous waste b) or hazardous waste containing free liquids (whether or not sorbents have been added) in any landfill is prohibited.
- C) Containers holding free liquids must not be placed in a landfill unless;
  - All free-standing liquid: 1)
    - A) has been removed by decanting or other methods;
    - has been mixed with sorbent or solidified so that B١ free-standing liquid is no longer observed; or
    - has been otherwise eliminated; or C)
  - The container is very small, such as an ampule; or 2)
  - The container is designed to hold free liquids for use other 3) 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.
- To demonstrate the absence or presence of free liquids in either a

d)

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-", <u>(U.S. EPA Publication No. SW-846, incorporated by reference in 35</u> Ill. Adm. Code 721.111.

- e) The placement of any liquids which that is not a hazardous waste in a landfill is prohibited (35 Ill. Adm. Code 729.311).
- f) Sorbents used to treat free liquids to be disposed of in landfills must be nonbiodegradable. Nonbiodegradable sorbents are: materials listed or described in subsection (f)(1) below; materials that pass one of the tests in subsection (f)(2) below; or materials that are determined by Board to be nonbiodegradable through the 35 Ill. Adm. Code 106 adjusted standard process.
  - 1) Nonbiodegradable sorbents are:
    - A) Inorganic minerals, other inorganic materials, and elemental carbon (e.g., aluminosilicates, clays, smectites, Fuller's earth, bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas (illite), vermiculites, zeolites; calcium carbonate (organic free limestone); oxides/ hydroxides, alumina, lime, silica (sand), diatomaceous earth; perlite (volcanic glass); expanded volcanic rock; volcanic ash; cement kiln dust; fly ash; rice hull ash; activated charcoal/activated carbon); or
    - B) High molecular weight synthetic polymers (e.g., polyethylene, high density polyethylene (HDPE), polypropylene, polystyrene, polyurethane, polyacrylate, polynorborene, polysobutylene, ground synthetic rubber, cross-linked allylstyrene and tertiary butyl copolymers). This does not include polymers derived from biological material or polymers specifically designed to be degradable; or
    - C) Mixtures of these nonbiodegradable materials.
  - 2) Tests for nonbiodegradable sorbents.
    - A) The sorbent material is determined to be nonbiodegradable under ASTM Method G21-70 (1984a)\_-"Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi", incorporated by reference in 35 Ill. Adm. Code 720.111; or
    - B) The sorbent material is determined to be nonbiodegradable under ASTM Method G22-76 (1984b)\_--"Standard Practice for Determining Resistance of Plastics to Bacteria", incorporated by reference in 35 Ill. Adm. Code 720.111.

(Source: Amended at 18 Ill. Reg. , effective \_\_\_\_\_)

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

#### PART 726

# STANDARDS FOR THE MANAGEMENT OF SPECIFIC HAZARDOUS WASTE AND SPECIFIC TYPES OF HAZARDOUS WASTE MANAGEMENT FACILITIES

## SUBPART C: RECYCLABLE MATERIALS USED IN A MANNER CONSTITUTING DISPOSAL

Section

- 726.120 Applicability
- 726.121 Standards applicable to generators and transporters of materials used in a manner that constitutes disposal
- 726.122 Standards applicable to storers, who are not the ultimate users, of materials that are to be used in a manner that constitutes disposal
- 726.123 Standards applicable to users of materials that are used in a manner that constitutes disposal

SUBPART D: HAZARDOUS WASTE BURNED FOR ENERGY RECOVERY

- Section 726.130 Applicability (Repealed)
- 726.131 Prohibitions (Repealed)
- 726.132 Standards applicable to generators of hazardous waste fuel
- (Repealed)
- 726.133 Standards applicable to transporters of hazardous waste fuel (Repealed)
- 726.134 Standards applicable to marketers of hazardous waste fuel (Repealed)
- 726.135 Standards applicable to burners of hazardous waste fuel (Repealed)
- 726.136 Conditional exemption for spent materials and by-products exhibiting a characteristic of hazardous waste (Repealed)

SUBPART E: USED OIL BURNED FOR ENERGY RECOVERY (Repealed)

- Section 726.140 Applicability (Repealed)
- 726.141 Prohibitions (Repealed)
- 726.142 Standards applicable to generators of used oil burned for energy recovery (Repealed)
- 726.143 recovery (Repealed) 726.143 Standards applicable to marketers of used oil burned for energy
- recovery (Repealed) 726.144 Standards applicable to burners of used oil burned for energy recovery (Repealed)

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

SUBPART H: HAZARDOUS WASTE BURNED IN BOILERS AND INDUSTRIAL FURNACES

- Section 726.200 Applicability
- 726.201 Management prior to Burning
- 726.202 Permit standards for Burners
- 726.203 Interim <u>sStatus</u> <u>sStandards</u> for Burners
- 726.204 Standards to e<u>C</u>ontrol Organic Emissions
- 726.205 Standards to control PM
- 726.206 Standards to <u>eControl Metals Emissions</u>
- 726.207 Standards to control HCl and Chlorine Gas Emissions
- 726.208 Small quantity On-site Burner Exemption

| 726.209<br>726.210<br>726.211<br>726.212<br>726.219 | Low r<br>Waive<br>Stand<br>Regula<br>Extens | isk waste Exemption<br>r of DRE trial burn for Boilers<br>ards for direct Transfer<br>ation of Residues<br>sions of Time |
|---|---|--|
| 726.Appendix  | C A   | Tier I and Tier II Feed Rate and Emissions Screening Limits for Metals   |
| 726. Appendix                                       | сB  | Tier I Feed Rate Screening Limits for Total Chlorine   |
| 726.Appendix  | C C   | Tier II Emission Rate Screening Limits for Free Chlorine and Hydrogen Chloride   |
| 726. Appendix                                       | c D   | Reference Air Concentrations   |
| 726. Appendix                                       | C E   | Risk Specific Doses  |
| 726. Appendix                                       | c F   | Stack Plume Rise   |
| 726. Appendix                                       | C G   | Health-Based Limits for Exclusion of Waste-Derived Residues  |
| 726.Appendix  | : H   | Potential PICs for Determination of Exclusion of Waste-<br>Derived Residues  |
| 726. Appendix                                       | I   | Methods Manual for Compliance with BIF Regulations   |
| 726.Appendix  | J   | Guideline on Air Quality Models  |
| 726.Appendix  | K.  | Lead-Bearing Materials That May be Processed in Exempt Lead Smelters   |
| 726.Appendix  | L   | Nickel or Chromium-Bearing Materials that may be Processed<br>in Exempt Nickel-Chromium Recovery Furnaces                |
| 726.Table A   |   | Exempt Quantities for Small Quantity Burner Exemption  |

AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1991, ch. 111½, pars. 1022.4 and 1027 [415 ILCS 5/22.4 and 27]).

SOURCE: Adopted in R85-22 at 10 Ill. Reg. 1162, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 14156, effective August 12, 1986; amended in R87-26 at 12 Ill. Reg. 2900, effective January 15, 1988; amended in R89-1 at 13 Ill. Reg. 18606, effective November 13, 1989; amended in R90-2 at 14 Ill. Reg. 14533, effective August 22, 1990; amended in R90-11 at 15 Ill. Reg. 9727, effective June 17, 1991; amended in R91-13 at 16 Ill. Reg. 9858, effective June 9, 1992; amended in R92-10 at 17 Ill. Reg. 5865, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20904, effective November 22, 1993; amended in R94-7 at Ill. Reg. , effective

> SUBPART H: HAZARDOUS WASTE BURNED IN BOILERS AND INDUSTRIAL FURNACES

Section 726.203 Interim estatus estandards for Burners

- a) Purpose, scope, applicability.
  - 1) General.
    - A) The purpose of this Section is to establish minimum national standards for owners and operators of "existing" BIFs that burn hazardous waste where such standards define the acceptable management of hazardous waste during the period of interim status. The standards of this Section apply to owners and operators of existing facilities until either a permit is issued under Section 726.202(d) or until closure responsibilities identified in this Section are fulfilled.
    - B) "Existing" or "in existence" means a BIF for which the owner or operator filed a certification of

precompliance with U.S. EPA pursuant to 40 CFR 266.103(b), incorporated by reference in subsection (b) $\tau$  below; provided, however, that U.S. EPA has not determined that the certification is invalid.

- C) If a BIF is located at a facility that already has a RCRA permit or interim status, then the owner or operator shall comply with the applicable regulations dealing with permit modifications in 35 Ill. Adm. Code 703.280 or changes in interim status in 35 Ill. Adm. Code 703.155.
- 2) Exemptions. The requirements of this Section do not apply to hazardous waste and facilities exempt under Sections 726.200(b) or 726.208.
- 3) Prohibition on burning dioxin-listed wastes. The following hazardous waste listed for dioxin and hazardous waste derived from any of these wastes must not be burned in a BIF operating under interim status: U.S. EPA Hhazardous Wwaste Nnumbers F020, F021, F022, F023, F026 and F027.
- 4) Applicability of 35 Ill. Adm. Code 725 standards. Owners and operators of BIFs that burn hazardous waste and are operating under interim status are subject to the following provisions of 35 Ill. Adm. Code 725, except as provided otherwise by this Section:
  - A) In Subpart A of this Part (General), 35 Ill. Adm. Code 725.104;
  - B) In Subpart B of this Part (General facility standards), 35 Ill. Adm. Code 725.111 through 725.117;
  - C) In Subpart C of this Part (Preparedness and prevention), 35 Ill. Adm. Code 725.131 through 725.137;
  - D) In Subpart D of this Part (Contingency plan and emergency procedures), 35 Ill. Adm. Code 725.151 through 725.156;
  - E) In Subpart E of this Part (Manifest system, recordkeeping and reporting), 35 Ill. Adm. Code 725.171 through 725.177, except that 35 Ill. Adm. Code 725.171, 725.172 and 725.176 do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources;
  - F) In Subpart G of this Part (Closure and post-closure), 35 Ill. Adm. Code 725.211 through 725.215;
  - G) In Subpart H of this Part (Financial requirements), 35 Ill. Adm. Code 725.241, 725.242, 725.243 and 725.247 through 725.251, except that the State of Illinois and the Federal government are exempt from the requirements of 35 Ill. Adm. Code 725.Subpart H; and
  - H) <u>In Subpart BB of this Part</u> (Air emission standards for equipment leaks), except 35 Ill. Adm. Code 725.950(a).
- 5) Special requirements for furnaces. The following controls

apply during interim status to industrial furnaces (e.g., kilns, cupolas) that feed hazardous waste for a purpose other than solely as an ingredient (see subsection (a)(5)(B)<sub> $\tau$ </sub> above) at any location other than the hot end where products are normally discharged or where fuels are normally fired:

- A) Controls.
  - i) The hazardous waste must be fed at a location where combustion gas temperatures are at least 1800-°\_F;
  - ii) The owner or operator shall determine that adequate oxygen is present in combustion gases to combust organic constituents in the waste and retain documentation of such determination in the facility record;
  - iii) For cement kiln systems, the hazardous waste must be fed into the kiln; and
  - iv) The HC controls of Section 726.204(f) or subsection (c)(5)<sub>7</sub> below<sub>7</sub> apply upon certification of compliance under subsection (c)<sub>7</sub> below, irrespective of the CO level achieved during the compliance test.
- B) Burning hazardous waste solely as an ingredient. A hazardous waste is burned for a purpose other than "solely as an ingredient" if it meets either of these criteria:
  - i) The hazardous waste has a total concentration of nonmetal compounds listed in 35 Ill. Adm. Code 721.Appendix H, exceeding 500 ppm by weight, as fired and so is considered to be burned for destruction. The concentration of nonmetal compounds in a waste as-generated may be reduced to the 500 ppm limit by bona fide treatment that removes or destroys nonmetal constituents. Blending for dilution to meet the 500 ppm limit is prohibited and documentation that the waste has not been impermissibly diluted must be retained in the facility record; or
  - ii) The hazardous waste has a heating value of 5,000 Btu/lb or more, as fired, and so is considered to be burned as fuel. The heating value of a waste as-generated may be reduced to below the 5,000 Btu/lb limit by bona fide treatment that removes or destroys organic constituents. The heating value of a waste as-generated may be reduced to below the 5,000 Btu/lb limit by bona fide treatment that removes or destroys organic constituents. Blending to augment the heating value to meet the 5,000 Btu/lb limit is prohibited and documentation that the waste has not been impermissibly blended must be retained in the facility record.
- 6) Restrictions on burning hazardous waste that is not a fuel.

Prior to certification of compliance under subsection  $(c)_{\tau}$  below, owners and operators shall not feed hazardous waste that has a heating value less than 5000 Btu/lb, as generated, (except that the heating value of a waste asgenerated may be increased to above the 5,000 Btu/lb limit by bona fide treatment; however blending to augment the heating value to meet the 5,000 Btu/lb limit is prohibited and records must be kept to document that impermissible blending has not occurred) in a BIF, except that:

- A) Hazardous waste may be burned solely as an ingredient; or
- B) Hazardous waste may be burned for purposes of compliance testing (or testing prior to compliance testing) for a total period of time not to exceed 720 hours; or
- C) Such waste may be burned if the Agency has documentation to show that, prior to August 21, 1991:
  - The BIF was operating under the interim status standards for incinerators or thermal treatment units, 35 Ill. Adm. Code 725.Subparts O or P; and
  - ii) The BIF met the interim status eligibility requirements under 35 Ill. Adm. Code 703.153 for 35 Ill. Adm. Code 725.Subparts O or P; and
  - iii) Hazardous waste with a heating value less than 5,000 Btu/lb was burned prior to that date; or
- D) Such waste may be burned in a halogen acid furnace if the waste was burned as an excluded ingredient under 35 Ill. Adm. Code 721.102(e) prior to February 21, 1991, and documentation is kept on file supporting this claim.
- 7) Direct transfer to the burner. If hazardous waste is directly transferred from a transport vehicle to a BIF without the use of a storage unit, the owner or operator shall comply with Section 726.211.
- b) Certification of precompliance.
  - The Board incorporates by reference 40 CFR 266.103(b)(1992)
     ; amended at 57 Fed. Reg. 38564, August 25, 1992. This Section incorporates no later editions or amendments.
  - 2) Certain owners and operators were required to file a certification of precompliance with U.S. EPA by August 21, 1991, pursuant to 40 CFR 266.103(b). No separate filing is required with the Agency.
- c) Certification of compliance. The owner or operator shall conduct emissions testing to document compliance with the emissions standards of Sections 726.204(b) through (e), 726.205, 726.206, 726.207, and subsection (a)(5)(A)(iv) $\tau$  above $\tau$  under the procedures prescribed by this subsection, except under extensions of time provided by subsection (c)(7) $\tau$  below. Based on the compliance test, the owner or operator shall submit to the Agency, on or

before August 21, 1992, a complete and accurate "certification of compliance" (under subsection (c)(4) $\tau$  below) with those emission standards establishing limits on the operating parameters specified in subsection (c)(1) $\tau$  below.

- 1) Limits on operating conditions. The owner or operator shall establish limits on the following parameters based on operations during the compliance test (under procedures prescribed in subsection (c)(4)(D)<sub>T</sub> below) or as otherwise specified and include these limits with the certification of compliance. The BIF must be operated in accordance with these operating limits and the applicable emissions standards of Section 726.204(b) through (e), 726.205, 726.206, 726.207 and subsection (a)(5)(A)(iv)<sub>T</sub> above<sub>T</sub> at all times when there is hazardous waste in the unit.
  - Feed rate of total hazardous waste and (unless complying the Tier I or adjusted Tier I metals feed rate screening limits under Section 726.206(b) or (e)), pumpable hazardous waste;
  - B) Feed rate of each metal in the following feedstreams:
    - Total feedstreams, except that industrial furnaces that must comply with the alternative metals implementation approach under subsection (c)(3)(B)<sub>T</sub> below<sub>T</sub> must specify limits on the concentration of each metal in collected PM in lieu of feed rate limits for total feedstreams; and facilities that comply with Tier I or Adjusted Tier I metals feed rate screening limits may set their operating limits at the metal feed rate screening limits determined under subsection 726.206(b) or (e).

BOARD NOTE: Federal subsections 266.103(c)(1)(ii)(A)(1) and <u>(c)(1)(ii)(A)(2)</u> are condensed into the above subsection.

- ii) Total hazardous waste feed (unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under Section 726.206(b) or (e)); and
- iii) Total pumpable hazardous waste feed (unless complying with Tier I or Adjusted Tier I metals feed rate screening limits under subsection 726.206 (b) or (e)).
- C) Total feed rate of total chlorine and chloride in total feed streams, except that facilities that comply with Tier I or Adjusted Tier I feed rate screening limits may set their operating limits at the total chlorine and chloride feed rate screening limits determined under subsection 726.207(b)(1) or (e);
- D) Total feed rate of ash in total feed streams, except that the ash feed rate for cement kilns and lightweight aggregate kilns is not limited;
- E) CO concentration, and where required, HC concentration in stack gas. When complying with the CO controls of

Section 726.204(b), the CO limit is 100 ppmv, and when complying with the HC controls of Section 726.204(c), the HC limit is 20 ppmv. When complying with the CO controls of Section 726.204(c), the CO limit is established based on the compliance test;

- F) Maximum production rate of the device in appropriate units when producing normal product unless complying with Tier I or Adjusted Tier I feed rate screening limits for chlorine under subsection 726.207(b)(1) or (e) and for all metals under subsection 726.207(b) or (e), and the uncontrolled particulate emissions do not exceed the standard under subsection 726.205;
- G) Maximum combustion chamber temperature where the temperature measurement is as close to the combustion zone as possible and is upstream of any quench water injection, (unless complying with the Tier I adjusted Tier I metals feed rate screening limits under Section 726.206(b) or (e));
- H) Maximum flue gas temperature entering a PM control device (unless complying with Tier I or adjusted Tier I metals feed rate screening limits under Section 726.206(b) or (e));
- I) For systems using wet scrubbers, including wet ionizing scrubbers (unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under Section 726.206(b) or (e) and the total chlorine and chloride feed rate screening limits under Section 726.207(b)(1) or (e)):
  - i) Minimum liquid to flue gas ratio;
  - ii) Minimum scrubber blowdown from the system or maximum suspended solids content of scrubber water; and
  - iii) Minimum pH level of the scrubber water;
- J) For systems using venturi scrubbers, the minimum differential gas pressure across the venturi (unless complying the Tier I or adjusted Tier I metals feed rate screening limits under Section 726.206(b) or (e) and the total chlorine and chloride feed rate screening limits under Section 726.207(b)(1) or (e));
- K) For systems using dry scrubbers (unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under Section 726.206(b) or (e) and the total chlorine and chloride feed rate screening limits under Section 726.207(b)(1) or (e)):
  - i) Minimum caustic feed rate; and
  - ii) Maximum flue gas flow rate:
- L) For systems using wet ionizing scrubbers or electrostatic precipitators (unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under Section 726.206(b) or (e) and the total

chlorine and chloride feed rate screening limits under Section 726.207(b)(1) or (e)):

- Minimum electrical power in kVA to the precipitator plates; and
- ii) Maximum flue gas flow rate;
- M) For systems using fabric filters (baghouses), the minimum pressure drop (unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under Section 726.206(b) or (e) and the total chlorine and chloride feed rate screening limits under Section 726.207(b)(1) or (e)).
- 2) Prior notice of compliance testing. At least 30 days prior to the compliance testing required by subsection  $(c)(3)_{\tau}$  below, the owner or operator shall notify the Agency and submit the following information:
  - A) General facility information including:
    - i) U.S. EPA facility ID number;
    - ii) Facility name, contact person, telephone number and address;
    - iii) Person responsible for conducting compliance test, including company name, address and telephone number, and a statement of qualifications;
    - iv) Planned date of the compliance test;
  - B) Specific information on each device to be tested including:
    - i) <u>A Description of BIF;</u>
    - ii) A scaled plot plan showing the entire facility and location of the BIF;
    - iii) A description of the APCS;
    - iv) Identification of the continuous emission monitors that are installed, including: CO monitor; Oxygen monitor; HC monitor, specifying the minimum temperature of the system and, if the temperature is less than 150-°\_C, an explanation of why a heated system is not used (see subsection (c)(5), below) and a brief description of the sample gas conditioning system;
    - v) Indication of whether the stack is shared with another device that will be in operation during the compliance test;
    - vi) Other information useful to an understanding of the system design or operation.
  - C) Information on the testing planned, including a

complete copy of the test protocol and QA/QC plan, and a summary description for each test providing the following information at a minimum:

- i) Purpose of the test (e.g., demonstrate compliance with emissions of PM); and
- ii) Planned operating conditions, including levels for each pertinent parameter specified in subsection (c)(1), above.
- 3) Compliance testing.
  - General. Compliance testing must be conducted under A) conditions for which the owner or operator has submitted a certification of precompliance under subsection  $(b)_{T}$  above<sub>T</sub> and under conditions established in the notification of compliance testing required by subsection  $(c)(2)_{\tau}$  above. The owner or operator may seek approval on a case-by-case basis to use compliance test data from one unit in lieu of testing a similar on-site unit. To support the request, the owner or operator shall provide a comparison of the hazardous waste burned and other feedstreams, and the design, operation, and maintenance of both the tested unit and the similar unit. The Agency shall provide a written approval to use compliance test data in lieu of testing a similar unit if the Agency finds that the hazardous wastes, devices and the operating conditions are sufficiently similar, and the data from the other compliance test is adequate to meet the requirements of this subsection (c).
  - B) Special requirements for industrial furnaces that recycle collected PM. Owners and operators of industrial furnaces that recycle back into the furnace PM from the APCS shall comply with one of the following procedures for testing to determine compliance with the metals standards of Section 726.206(c) or (d):
    - i) The special testing requirements prescribed in "Alternative Method for Implementing Metals Controls" in Section 726.Appendix I - ("eye"); or
    - ii) Stack emissions testing for a minimum of 6 hours each day while hazardous waste is burned during interim status. The testing must be conducted when burning normal hazardous waste for that day at normal feed rates for that day and when the APCS is operated under normal conditions. During interim status, hazardous waste analysis for metals content must be sufficient for the owner or operator to determine if changes in metals content affect the ability of the unit to meet the metals emissions standards established under Section 726.206(c) or (d). Under this option, operating limits (under subsection  $(c)(1)_{\tau}$  above) must be established during compliance testing under this subsection (c)(3) only on the following parameters: Feed rate of

total hazardous waste; Total feed rate of total chlorine and chloride in total feed streams; Total feed rate of ash in total feed streams, except that the ash feed rate for cement kilns and light-weight aggregate kilns is not limited; CO concentration, and where required, HC concentration in stack gas; Maximum production rate of the device in appropriate units when producing normal product; or

- iii) Conduct compliance testing to determine compliance with the metals standards to establish limits on the operating parameters of subsection (c)(1) $\tau$  above $\tau$  only after the kiln system has been conditioned to enable it to reach equilibrium with respect to metals fed into the system and metals emissions. During conditioning, hazardous waste and raw materials having the same metals content as will be fed during the compliance test must be fed at the feed rates that will be fed during the compliance test.
- C) Conduct of compliance testing.
  - i) If compliance with all applicable emissions standards of Sections 726.204 through 726.207 is not demonstrated simultaneously during a set of test runs, the operating conditions of additional test runs required to demonstrate compliance with remaining emissions standards must be as close as possible to the original operating conditions.
  - ii) Prior to obtaining test data for purposes of demonstrating compliance with the applicable emissions standards of Sections 726.204 through 726.207 or establishing limits on operating parameters under this Section, the facility must operate under compliance test conditions for a sufficient period to reach steady-state operations. Industrial furnaces that recycle collected PM back into the furnace and that comply with subsections (c)(3)(B)(i) or  $(c)(3)(B)(ii)_{T}$  above, however, need not reach steady state conditions with respect to the flow of metals in the system prior to beginning compliance testing for metals.
  - iii) Compliance test data on the level of an operating parameter for which a limit must be established in the certification of compliance must be obtained during emissions sampling for the pollutant(s) (i.e., metals, PM, HCl/chlorine gas, organic compounds) for which the parameter must be established as specified by subsection (c)(1)7 above.
- 4) Certification of compliance. Within 90 days of completing compliance testing, the owner or operator shall certify to the Agency compliance with the emissions standards of Sections 726.204(b), (c) and (e), 726.205, 726.206, 726.207,

and subsection (a)(5)(A)(iv) $\tau$  above. The certification of compliance must include the following information:

- A) General facility and testing information including:
  - i) U.S. EPA facility ID number;
  - ii) Facility name, contact person, telephone number and address;
  - iii) Person responsible for conducting compliance testing, including company name, address and telephone number, and a statement of qualifications;
  - iv) Date(s) of each compliance test;
  - v) Description of BIF tested;
  - vi) Person responsible for QA/QC, title and telephone number, and statement that procedures prescribed in the QA/QC plan submitted under Section 726.203(c)(2)(C) have been followed, or a description of any changes and an explanation of why changes were necessary.
  - vii) Description of any changes in the unit configuration prior to or during testing that would alter any of the information submitted in the prior notice of compliance testing under subsection (c)(2)<sub>7</sub> above<sub>7</sub> and an explanation of why the changes were necessary;
  - viii) Description of any changes in the planned test conditions prior to or during the testing that alter any of the information submitted in the prior notice of compliance testing under subsection (c)(2)<sub>7</sub> above<sub>7</sub> and an explanation of why the changes were necessary; and
  - ix) The complete report on results of emissions testing.
- B) Specific information on each test including:
  - Purpose(s) of test (e.g., demonstrate conformance with the emissions limits for PM, metals, HCl, chlorine gas and CO)
  - ii) Summary of test results for each run and for each test including the following information: Date of run; Duration of run; Time-weighted average and highest hourly rolling average CO level for each run and for the test; Highest hourly rolling average HC level, if HC monitoring is required for each run and for the test; If dioxin and furan testing is required under Section 726.204(e), time-weighted average emissions for each run and for the test of chlorinated dioxin and furan emissions, and the predicted maximum annual average ground level concentration of the toxicity equivalency factor

(defined in Section 726.200(g)); Time-weighted average PM emissions for each run and for the test; Time-weighted average HCl and chlorine gas emissions for each run and for the test; Timeweighted average emissions for the metals subject to regulation under Section 726.206 for each run and for the test; and QA/QC results.

- C) Comparison of the actual emissions during each test with the emissions limits prescribed by Sections 726.204(b), (c) and (e), 726.205, 726.206 and 726.207 and established for the facility in the certification of precompliance under subsection (b)<sub>7</sub> above.
- D) Determination of operating limits based on all valid runs of the compliance test for each applicable parameter listed in subsection  $(c)(1)_{\tau}$  above<sub> $\tau$ </sub> using either of the following procedures:
  - i) Instantaneous limits. A parameter must be measured and recorded on an instantaneous basis (i.e., the value that occurs at any time) and the operating limit specified as the timeweighted average during all runs of the compliance test; or
  - ii) Hourly rolling average basis. The limit for a parameter must be established and continuously monitored on an hourly rolling average basis, as defined in Section 726.200(g). The operating limit for the parameter must be established based on compliance test data as the average over all test runs of the highest hourly rolling average value for each run.
  - Rolling average limits for carcinogenic metals iii) and lead. Feed rate limits for the carcinogenic metals and lead must be established either on an hourly rolling average basis as prescribed by subsection (c)(4)(D)(ii)  $\tau$  above  $\tau$  or on (up to) a 24 hour rolling average basis. If the owner or operator elects to use an averaging period from 2 to 24 hours: The feed rate of each metal must be limited at any time to ten times the feed rate that would be allowed on a hourly rolling average basis; The continuous monitor is as defined in Section 726.200(g). And the operating limit for the feed rate of each metal must be established based on compliance test data as the average over all test runs of the highest hourly rolling average feed rate for each run.
  - iv) Feed rate limits for metals, total chlorine and chloride and ash. Feed rate limits for metals, total chlorine and chloride and ash are established and monitored by knowing the concentration of the substance (i.e., metals, chloride/chlorine and ash) in each feedstream and the flow rate of the feedstream. To monitor the feed rate of these substances, the flow rate of each feedstream must be monitored under the

continuous monitoring requirements of subsections (c)(4)(D)(i) through  $(c)(4)(D)(ii)_{\tau}$  above.

E) Certification of compliance statement. The following statement must accompany the certification of compliance:

> "I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information and supporting documentation. Copies of all emissions tests, dispersion modeling results and other information used to determine conformance with the requirements of 35 Ill. Adm. Code 726.203(c) are available at the facility and can be obtained from the facility contact person listed above. Based on my inquiry of the person or persons who manages the facility, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

> I also acknowledge that the operating limits established pursuant to 35 Ill. Adm. Code 726.203(c)(4)(D) are enforceable limits at which the facility can legally operate during interim status until a revised certification of compliance is submitted."

- 5) Special requirements for HC monitoring systems. When an owner or operator is required to comply with the HC controls provided by Sections 726.204(c) or subsection (a)(5)(A)(iv)<sub> $\tau$ </sub> above, a conditioned gas monitoring system may be used in conformance with specifications provided in Section 726.Appendix I-("eye") provided that the owner or operator submits a certification of compliance without using extensions of time provided by subsection  $(c)(7)_{\tau}$  below. However, owners or operators of facilities electing to comply with the alternative hydrocarbon provision of Section 726.204(f) and requesting a time extension under Section 726.219(b) may establish the baseline HC level and comply with the interim HC limit established by the time extension using a conditioned gas monitoring system if the Board determines that the owner or operator has also demonstrated a good faith effort to operate a heated monitoring system but found it to be impracticable.
- 6) Special operating requirements for industrial furnaces that recycle collected PM. Owners and operators of industrial furnaces that recycle back into the furnace PM from the APCS must:
  - A) When complying with the requirements of subsection
     (c)(3)(B)(i)<sub>T</sub> above, comply with the operating
     requirements prescribed in "Alternative Method to

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Implement the Metals Controls" in Section 726.Appendix
I ("eye"); and

- B) When complying with the requirements of subsection  $(c)(3)(B)(ii)_{\tau}$  above, comply with the operating requirements prescribed by that subsection.
- 7) Extensions of time.
  - A) If the owner or operator does not submit a complete certification of compliance for all of the applicable emissions standards of Sections 726.204, 726.205, 726.206 and 726.207 by August 21, 1992, the owner or operator shall either:
    - i) Stop burning hazardous waste and begin closure activities under subsection  $(1)_{\mathcal{T}}$  below<sub> $\mathcal{T}$ </sub> for the hazardous waste portion of the facility; or
    - ii) Limit hazardous waste burning only for purposes of compliance testing (and pretesting to prepare for compliance testing) a total period of 720 hours for the period of time beginning August 21, 1992, submit a notification to the Agency by August 21, 1992 stating that the facility is operating under restricted interim status and intends to resume burning hazardous waste, and submit a complete certification of compliance by August 23, 1993; or
    - iii) Obtain a case-by-case extension of time under subsection (c)(7)(B)<sub>T</sub> below.
  - B) Case-by-case extensions of time. See Section 726.219.
- 8) Revised certification of compliance. The owner or operator may submit at any time a revised certification of compliance (recertification of compliance) under the following procedures:
  - A) Prior to submittal of a revised certification of compliance, hazardous waste must not be burned for more than a total of 720 hours under operating conditions that exceed those established under a current certification of compliance, and such burning must be conducted only for purposes of determining whether the facility can operate under revised conditions and continue to meet the applicable emissions standards of Sections 726.204, 726.205, 726.206 and 726.207;
  - B) At least 30 days prior to first burning hazardous waste under operating conditions that exceed those established under a current certification of compliance, the owner or operator shall notify the Agency and submit the following information:
    - i) U.S.\_EPA facility ID number, and facility name, contact person, telephone number and address;
    - ii) Operating conditions that the owner or operator is seeking to revise and description of the

changes in facility design or operation that prompted the need to seek to revise the operating conditions;

- iii) A determination that, when operating under the revised operating conditions, the applicable emissions standards of Sections 726.204, 726.205, 726.206 and 726.207 are not likely to be exceeded. To document this determination, the owner or operator shall submit the applicable information required under subsection (b)(2)<sub>7</sub> above; and
- iv) Complete emissions testing protocol for any pretesting and for a new compliance test to determine compliance with the applicable emissions standards of Sections 726.204, 726.205, 726.206 and 726.207 when operating under revised operating conditions. The protocol shall include a schedule of pre-testing and compliance testing. If the owner or operator revises the scheduled date for the compliance test, the owner or operator shall notify the Agency in writing at least 30 days prior to the revised date of the compliance test;
- C) Conduct a compliance test under the revised operating conditions and the protocol submitted to the Agency to determine compliance with the applicable emissions standards of Sections 726.204, 726.205, 726.206 and 726.207; and
- D) Submit a revised certification of compliance under subsection  $(c)(4)_{\tau}$  above.
- d) Periodic Recertifications. The owner or operator shall conduct compliance testing and submit to the Agency a recertification of compliance under provisions of subsection (c)<sub>7</sub> above<sub>7</sub> within three years from submitting the previous certification or recertification. If the owner or operator seeks to recertify compliance under new operating conditions, the owner or operator shall comply with the requirements of subsection (c)(8)<sub>7</sub> above.
- e) Noncompliance with certification schedule. If the owner or operator does not comply with the interim status compliance schedule provided by subsections (b), (c) and (d)<sub>T</sub> above, hazardous waste burning must terminate on the date that the deadline is missed, closure activities must begin under subsection (1)<sub>T</sub> below, and hazardous waste burning must not resume except under an operating permit issued under 35 Ill. Adm. Code 703.232. For purposes of compliance with the closure provisions of subsection (1)<sub>T</sub> below<sub>T</sub> and 35 Ill. Adm. Code 725.212(d)(2) and 725.213, the BIF has received "the known final volume of hazardous waste" on the date the deadline is missed.
- f) Start-up and shut-down. Hazardous waste (except waste fed solely as an ingredient under the Tier I (or adjusted Tier I) feed rate screening limits for metals and chloride/chlorine) must not be fed into the device during start-up and shut-down of the BIF, unless the device is operating within the conditions of operation specified in the certification of compliance.

- g) Automatic waste feed cutoff. During the compliance test required by subsection (c)(3)<sub>7</sub> above<sub>7</sub> and upon certification of compliance under subsection (c)<sub>7</sub> above, a BIF must be operated with a functioning system that automatically cuts off the hazardous waste feed when the applicable operating conditions specified in subsections (c)(1)(A) and (c)(1)(E) through (c)(1)(M)<sub>7</sub> above<sub>7</sub> deviate from those established in the certification of compliance. In addition:
  - 1) To minimize emissions of organic compounds, the minimum combustion chamber temperature (or the indicator of combustion chamber temperature) that occurred during the compliance test must be maintained while hazardous waste or hazardous waste residues remain in the combustion chamber, with the minimum temperature during the compliance test defined as either:
    - A) If compliance with the combustion chamber temperature limit is based on a hourly rolling average, the minimum temperature during the compliance test is considered to be the average over all runs of the lowest hourly rolling average for each run; or
    - B) If compliance with the combustion chamber temperature limit is based on an instantaneous temperature measurement, the minimum temperature during the compliance test is considered to be the time-weighted average temperature during all runs of the test; and
  - 2) Operating parameters limited by the certification of compliance must continue to be monitored during the cutoff, and the hazardous waste feed must not be restarted until the levels of those parameters comply with the limits established in the certification of compliance.
- h) Fugitive emissions. Fugitive emissions must be controlled by:
  - 1) Keeping the combustion zone totally sealed against fugitive emissions; or
  - 2) Maintaining the combustion zone pressure lower than atmospheric pressure; or
  - 3) An alternate means of control that the owner or operator demonstrates provides fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure. Support for such demonstration must be included in the operating record.
- i) Changes. A BIF must cease burning hazardous waste when combustion properties, or feed rates of the hazardous waste, other fuels or industrial furnace feedstocks, or the BIF design or operating conditions deviate from the limits specified in the certification of compliance.
- j) Monitoring and Inspections.
  - The owner or operator shall monitor and record the following, at a minimum, while burning hazardous waste:
    - A) Feed rates and composition of hazardous waste, other fuels and industrial furnace feed stocks, and feed

rates of ash, metals, and total chlorine and chloride as necessary to ensure conformance with the certification of precompliance or certification of compliance;

- B) CO, oxygen and, if applicable, HC, on a continuous basis at a common point in the BIF downstream of the combustion zone and prior to release of stack gases to the atmosphere in accordance with the operating limits specified in the certification of compliance. CO, HC and oxygen monitors must be installed, operated and maintained in accordance with methods specified in Section 726.Appendix I ("eye").
- C) Upon the request of the Agency, sampling and analysis of the hazardous waste (and other fuels and industrial furnace feed stocks as appropriate) and the stack gas emissions must be conducted to verify that the operating conditions established in the certification of precompliance or certification of compliance achieve the applicable standards of Sections 726.204, 726.205, 726.206 and 726.207.
- 2) The BIF and associated equipment (pumps, valves, pipes, fuel storage tanks, etc.) must be subjected to thorough visual inspection when they contain hazardous waste, at least daily for leaks, spills, fugitive emissions and signs of tampering.
- 3) The automatic hazardous waste feed cutoff system and associated alarms must be tested at least once every 7 days when hazardous waste is burned to verify operability, unless the owner or operator can demonstrate that weekly inspections will unduly restrict or upset operations and that less frequent inspections will be adequate. Support for such demonstration must be included in the operating record. At a minimum, operational testing must be conducted at least once every 30 days.
- 4) These monitoring and inspection data must be recorded and the records must be placed in the operating log.
- k) Recordkeeping. The owner or operator shall keep in the operating record of the facility all information and data required by this Section until closure of the BIF unit.
- Closure. At closure, the owner or operator shall remove all hazardous waste and hazardous waste residues (including, but not limited to, ash, scrubber waters and scrubber sludges) from the BIF and shall comply with 35 Ill. Adm. Code 725.211 through 725.215.

(Source: Amended at 18 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_) Section 726.204 Standards to econtrol Organic Emissions

- a) DRE standard.
  - General. Except as provided in subsection (a)(3), below, a BIF burning hazardous waste must achieve a DRE of 99.99% for all organic hazardous constituents in the waste feed. To demonstrate conformance with this requirement, 99.99% DRE

must be demonstrated during a trial burn for each principal organic hazardous constituent (POHC) designated (under subsection (a)(2) $\tau$  below) in its permit for each waste feed. DRE is determined for each POHC from the following equation:

DRE = 100(I - 0)/I

where:

I = Mass feed rate of one POHC in the hazardous waste fired to the BIF; and

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

- Designation of POHCs. POHCs are those compounds for which 2) compliance with the DRE requirements of this Section must be demonstrated in a trial burn in conformance with procedures prescribed in 35 Ill. Adm. Code 703.232. One or more POHCs must be designated by the Agency for each waste feed to be POHCs must be designated based on the degree of burned. difficulty of destruction of the organic constituents in the waste and on their concentrations or mass in the waste feed considering the results of waste analyses submitted with Part B of the permit application. POHCs are most likely to be selected from among those compounds listed in 35 Ill. Adm. Code 721. Appendix H that are also present in the normal waste feed. However, if the applicant demonstrates to the Agency that a compound not listed in 35 Ill. Adm. Code 721. Appendix H or not present in the normal waste feed is a suitable indicator of compliance with the DRE requirements of this Section, that compound must be designated as a POHC. Such POHCs need not be toxic or organic compounds.
- 3) Dioxin-listed waste. A BIF burning hazardous waste containing (or derived from) U.S. EPA Hazardous Wastes Nos. F020, F021, F022, F023, F026 or F027 must achieve a destruction and removal efficiency (DRE) of 99.9999% for each POHC designated (under subsection (a)(2) $\tau$  above) in its permit. This performance must be demonstrated on POHCs that are more difficult to burn than tetra-, penta- and hexachlorodibenzo-p-dioxins and dibenzofurans. DRE is determined for each POHC from the equation in subsection (a)(1) $\tau$  above. In addition, the owner or operator of the BIF shall notify the Agency of intent to burn U.S. EPA Hazardous Waste Nos. F020, F021, F022, F023, F026 or F027.
- 4) Automatic waiver of DRE trial burn. Owners and operators of boilers operated under the special operating requirements provided by Section 726.210 are considered to be in compliance with the DRE standard of subsection (a)(1)<sub>7</sub> above<sub>7</sub> and are exempt from the DRE trial burn.
- 5) Low risk waste. Owners and operators of BIFs that burn hazardous waste in compliance with the requirements of Section 726.209(a) are considered to be in compliance with the DRE standard of subsection  $(a)(1)_{T}$  above<sub>T</sub> and are exempt from the DRE trial burn.
- b) CO standard.
  - 1) Except as provided in subsection  $(c)_{\tau}$  below, the stack gas

concentration of CO from a BIF burning hazardous waste cannot exceed 100 ppmv on an hourly rolling average basis (i.e., over any 60 minute period), continuously corrected to 7 percent oxygen, dry gas basis.

- 2) CO and oxygen must be continuously monitored in conformance with "Performance Specifications for Continuous Emission Monitoring of Carbon Monoxide and Oxygen for Incinerators, Boilers, and Industrial Furnaces Burning Hazardous Waste" in Section 726.Appendix I ("eye").
- 3) Compliance with the 100 ppmv CO limit must be demonstrated during the trial burn (for new facilities or an interim status facility applying for a permit) or the compliance test (for interim status facilities). To demonstrate compliance, the highest hourly rolling average CO level during any valid run of the trial burn or compliance test must not exceed 100 ppmv.
- c) Alternative CO standard.
  - 1) The stack gas concentration of CO from a BIF burning hazardous waste may exceed the 100 ppmv limit provided that stack gas concentrations of HCs do not exceed 20 ppmv, except as provided by subsection (f)<sub>7</sub> below<sub>7</sub> for certain industrial furnaces.
  - 2) HC limits must be established under this Section on an hourly rolling average basis (i.e., over any 60 minute period), reported as propane, and continuously corrected to 7 percent oxygen, dry gas basis.
  - 3) HC must be continuously monitored in conformance with "Performance Specifications for Continuous Emission Monitoring of Hydrocarbons for Incinerators, Boilers, and Industrial Furnaces Burning Hazardous Waste" in Section 726.Appendix I ("eye"). CO and oxygen must be continuously monitored in conformance with subsection (b)(2), above.
  - 4) The alternative CO standard is established based on CO data during the trial burn (for a new facility) and the compliance test (for an interim status facility). The alternative CO standard is the average over all valid runs of the highest hourly average CO level for each run. The CO limit is implemented on an hourly rolling average basis, and continuously corrected to 7 percent oxygen, dry gas basis.
- d) Special requirements for furnaces. Owners and operators of industrial furnaces (e.g., kilns, cupolas) that feed hazardous waste for a purpose other than solely as an ingredient (see Section 726.203(a)(5)(B)) at any location other than the end where products are normally discharged and where fuels are normally fired must comply with the HC limits provided by subsections (c)<sub>7</sub> above<sub>7</sub> or (f)<sub>7</sub> below<sub>7</sub> irrespective of whether stack gas CO concentrations meet the 100 ppmv limit of subsection (b)<sub>7</sub> above.
- e) Controls for dioxins and furans. Owners and operators of BIFs that are equipped with a dry PM control device that operates within the temperature range of 450 through 750-°\_F, and industrial furnaces operating under an alternative HC limit established under subsection (f)<sub>7</sub> below<sub>7</sub> shall conduct a site-specific risk assessment as follows to demonstrate that emissions

- 1) During the trial burn (for new facilities or an interim status facility applying for a permit) or compliance test (for interim status facilities), determine emission rates of the tetra-octa congeners of chlorinated dibenzo-p-dioxins (PCDDs) and dibenzofurans (CDDs/CDFs) using Method 23, "Determination of Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans (PCDFs) from Stationary Sources", in Section 726.Appendix I-("eye");
- 2) Estimate the 2,3,7,8-TCDD toxicity equivalence of the tetraocta CDDs/CDFs congeners using "Procedures for Estimating the Toxicity Equivalence of Chlorinated Dibenzo-p-Dioxin and Dibenzofuran Congeners" in Section 726.Appendix I ("eye"). Multiply the emission rates of CDD/CDF congeners with a toxicity equivalence greater than zero (see the procedure) by the calculated toxicity equivalence factor to estimate the equivalent emission rate of 2,3,7,8-TCDD;
- 3) Conduct dispersion modeling using methods recommended in <u>40</u> CFR 51, Appendix W, as incorporated by reference at <u>35</u> Ill. Adm. Code <u>720.111</u> ("Guideline on Air Quality Models (Revised)" <u>(1986)</u> and its supplements), or the "Hazardous Waste Combustion Air Quality Screening Procedure", which are provided in Appendices<u>x</u> I and J, respectively, or "EPA <u>SCREEN Screening Procedure" as described</u> in "Screening Procedures for Estimating Air Quality Impact of Stationary Sources, <u>Revised</u>" (incorporated by reference in <u>35</u> Ill. Adm. Code <u>720.111</u>) to predict the maximum annual average off-site ground level concentration of <u>2</u>, 3, 7, 8-TCDD equivalents determined under subsection (e)(2)<sub>T</sub> above. The maximum annual average on-site concentration must be used when a person resides on-site; and
- 4) The ratio of the predicted maximum annual average ground level concentration of 2,3,7,8-TCDD equivalents to the riskspecific dose (RSD) for 2,3,7,8-TCDD provided in Section 726.Appendix E (2.2E-07×10<sup>-7</sup>) must not exceed 1.0.
- f) Alternative HC limit for furnaces with organic matter in raw material. For industrial furnaces that cannot meet the 20 ppmv HC limit because of organic matter in normal raw material, the Agency shall establish an alternative HC limit on a case-by-case basis (under a Part B permit proceeding) at a level that ensures that flue gas HC (and CO) concentrations when burning hazardous waste are not greater than when not burning hazardous waste (the baseline HC level) provided that the owner or operator complies with the following requirements. However, cement kilns equipped with a by-pass duct meeting the requirements of subsection  $(g)_T$ below<sub>T</sub> are not eligible for an alternative HC limit.
  - 1) The owner or operator shall demonstrate that the facility is designed and operated to minimize HC emissions from fuels and raw materials, and that the facility is producing normal products under normal operating conditions feeding normal feedstocks and fuels when the baseline HC (and CO) level is determined. The baseline HC level is defined as the average over all valid test runs of the highest hourly rolling average value for each run when the facility does not burn

hazardous waste, adjusted as appropriate to consider the variability of hydrocarbon levels under good combustion operating conditions. The baseline CO level is determined based on the test runs used to establish the baseline HC level and is defined as the average over all test runs of the highest hourly rolling average CO value for each run. More than one baseline level must be determined if the facility operates under different modes that generate significantly different HC (and CO) levels;

- 2) The owner or operator shall develop an approach to monitor over time changes in the operation of the facility that could reduce the baseline HC level;
- 3) The owner or operator shall conduct emissions testing during the trial burn to:
  - A) Determine the baseline HC (and CO) level;
  - B) Demonstrate that, when hazardous waste is burned, HC (and CO) levels do not exceed the baseline level; and
  - C) Identify the types and concentrations of organic compounds listed in 35 Ill. Adm. Code 721.Appendix H, that are emitted and conduct dispersion modeling to predict the maximum annual average ground level concentration of each organic compound. On-site ground level concentrations must be considered for this evaluation if a person resides on site.
    - Sampling and analysis of organic emissions must be conducted using procedures prescribed by the Agency pursuant to 35 Ill. Adm. Code 703.208(a).
    - ii) Dispersion modeling must be conducted according to procedures provided by subsection  $(e)(2)_{\tau}$  above; and
  - D) Demonstrate that maximum annual average ground level concentrations of the organic compounds identified in subsection (f)(3)(C)<sub>7</sub> above<sub>7</sub> do not exceed the following levels:
    - i) For the noncarcinogenic compounds listed in Section 726.Appendix D, the levels established in <u>that</u>\_Section-726.Appendix D;
    - ii) For the carcinogenic compounds listed in Section 726.Appendix E, the sum for all compounds of the ratios of the actual ground level concentration to the level established in <u>that</u> Section 726.Appendix E cannot exceed 1.0. To estimate the health risk from chlorinated dibenzo-pdioxins and dibenzofuran congeners, use the procedures prescribed by subsection (e)(3)<sub>7</sub> above<sub>7</sub> to estimate the 2,3,7,8-TCDD toxicity equivalence of the congeners.
    - iii) For compounds not listed in Section 726.Appendix D or <u>726.Appendix</u> E, 0.1 uµg/eu m<sup>3</sup> (micrograms per cubic meter).

- All HC levels specified under this subsection are to be monitored and reported as specified in subsections (c)(1) and (c)(2) r above.
- g) Monitoring CO and HC in the by-pass duct of a cement kiln. Cement kilns may comply with the CO and HC limits provided by subsections (b), (c) and (d)<sub>7</sub> above<sub>7</sub> by monitoring in the by-pass duct provided that:
  - Hazardous waste is fired only into the kiln and not at any location downstream from the kiln exit relative to the direction of gas flow; and
  - 2) The by-pass duct diverts a minimum of 10% of kiln off-gas into the duct.
- h) Use of emissions test data to demonstrate compliance and establish operating limits. Compliance with the requirements of this Section must be demonstrated simultaneously by emissions testing or during separate runs under identical operating conditions. Further, data to demonstrate compliance with the CO and HC limits of this Section or to establish alternative CO or HC limits under this Section must be obtained during the time that DRE testing, and where applicable, CDD/CDF testing under subsection (e)<sub>T</sub> above<sub>T</sub> and comprehensive organic emissions testing under subsection (f)<sub>T</sub> above<sub>T</sub> is conducted.
- i) Enforcement. For the purposes of permit enforcement, compliance with the operating requirements specified in the permit (under Section 726.202) will be regarded as compliance with this Section. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the requirements of this Section is "information" justifying modification or revocation and re-issuance of a permit under 35 Ill. Adm. Code 703.270 et seq.

(Source: Amended at 18 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 726.206 Standards to eControl Metals Emissions

- a) General. The owner or operator shall comply with the metals standards provided by subsections (b), (c), (d), (e) or (f)<sub>T</sub> below<sub>T</sub> for each metal listed in subsection (b)<sub>T</sub> below<sub>T</sub> that is present in the hazardous waste at detectable levels using analytical procedures specified in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, (SW-846), incorporated by reference in 35 Ill. Adm. Code 720.111.
- b) Tier I feed rate screening limits. Feed rate screening limits for metals are specified in Section 726.Appendix A as a function of terrain-adjusted effective stack height (TESH) and terrain and land use in the vicinity of the facility. Criteria for facilities that are not eligible to comply with the screening limits are provided in subsection (b)(7) $\tau$  below.
  - Noncarcinogenic metals. The feed rates of the noncarcinogenic metals in all feed streams, including hazardous waste, fuels and industrial furnace feed stocks must not exceed the screening limits specified in Section 726.Appendix A.
    - A) The feed rate screening limits for antimony, barium, mercury, thallium and silver are based on either:

- i) An hourly rolling average as defined in Sections 726.200(g) and 726.202(e)(6)(A)(ii); or
- ii) An instantaneous limit not to be exceeded at any time.
- B) The feed rate screening limit for lead is based on one of the following:
  - i) An hourly rolling average as defined in Sections 726.200(g) and 726.202(e)(6)(A)(ii);
  - ii) An averaging period of 2 to 24 hours as defined in Section 726.202(e)(6)(B) with an instantaneous feed rate limit not to exceed 10 times the feed rate that would be allowed on an hourly rolling average basis; or
  - iii) An instantaneous limit not to be exceeded at any time.
- 2) Carcinogenic metals.
  - A) The feed rates of carcinogenic metals in all feed streams, including hazardous waste, fuels and industrial furnace feed stocks must not exceed values derived from the screening limits specified in Section 726.Appendix A. The feed rate of each of these metals is limited to a level such that the sum of the ratios of the actual feed rate to the feed rate screening limit specified in Section 726.Appendix A must not exceed 1.0, as provided by the following equation:

$$\sum_{i=1}^n \frac{A_i}{F_i} \le 1.0$$

 $SUM(Ai/Fi) \leq 1.0$ 

where:

 $\frac{SUM(Xi)\Sigma A_i/F_i}{F_i}$  means the sum of the values of  $\frac{XA/F}{F}$  for each metal "i", from i = 1 to n.

n = number of carcinogenic metals

 $A_{\dot{x}_i} = \underline{the}$  actual feed rate to the device for metal "i"

 $F_{\pm_i} = \underline{the}$  feed rate screening limit provided by Section 726.Appendix A for metal "i".

- B) The feed rate screening limits for the carcinogenic metals are based on either:
  - i) An hourly rolling average; or
  - ii) An averaging period of 2 to 24 hours, as defined

in Section 726.202(e)(6)(B), with an instantaneous feed rate limit not to exceed 10 times the feed rate that would be allowed on an hourly rolling average basis.

- 3) TESH (terrain adjusted effective stack height).
  - A) The TESH is determined according to the following equation:

TESH = H + P - T

where:

H = Actual physical stack height (m)

P = Plume rise (in m) as determined from Section 726.Appendix F as a function of stack flow rate and stack gas exhaust temperature.

T = Terrain rise (in m) within five kilometers of the stack.

- B) The stack height (H) must not exceed good engineering practice stack height, as defined in Section 726.200(g).
- C) If the TESH calculated pursuant to subsection (b)(3)(A)<sub>7</sub> above<sub>7</sub> is not listed in <u>Sections</u> <u>726.Appendisesx</u> A through <u>726.Appendix</u> C, the values for the nearest lower TESH listed in the table must be used. If the TESH is four meters or less, a value based on four meters must be used.
- 4) Terrain type. The screening limits are a function of whether the facility is located in noncomplex or complex terrain. A device located where any part of the surrounding terrain within 5 kilometers of the stack equals or exceeds the elevation of the physical stack height (H) is considered to be in complex terrain and the screening limits for complex terrain apply. Terrain measurements are to be made from U.S. Geological Survey 7.5-minute topographic maps of the area surrounding the facility.
- 5) Land use. The screening limits are a function of whether the facility is located in an area where the land use is urban or rural. To determine whether land use in the vicinity of the facility is urban or rural, procedures provided in <u>Section 726.Appendicesx</u> I ("eye") or <u>Section</u> <u>726.Appendix</u>J shall be used.
- 6) Multiple stacks. Owners and operators of facilities with more than one on-site stack from a BIF, incinerator or other thermal treatment unit subject to controls of metals emissions under a RCRA permit or interim status controls shall comply with the screening limits for all such units assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics. The stack with the lowest value of K is the worst-case stack. K is determined from the following equation as applied to each stack:

 $K = H + \times V + \times T$ 

Where:

K = a parameter accounting for relative influence of stack height and plume rise; H = physical stack height (meters); V = stack gas flow rate (eu-m<sup>3</sup>/sec\_(cubic meters per second); and

T = exhaust temperature (degrees K).

- 7) Criteria for facilities not eligible for screening limits. If any criteria below are met, the Tier I (and Tier II) screening limits do not apply. Owners and operators of such facilities shall comply with either the Tier III standards provided by subsection (d)<sub>7</sub> below or with the adjusted Tier I feed rate screening limits provided by subsection (e) below.
  - A) The device is located in a narrow valley less than one kilometer wide;
  - B) The device has a stack taller than 20 meters and is located such that the terrain rises to the physical height within one kilometer of the facility;
  - C) The device has a stack taller than 20 meters and is located within five kilometers of a shoreline of a large body of water such as an ocean or large lake;
  - D) The physical stack height of any stack is less than 2.5 times the height of any building within five building heights or five projected building widths of the stack and the distance from the stack to the closest boundary is within five building heights or five projected building widths of the associated building; or
- 8) Implementation. The feed rate of metals in each feedstream must be monitored to ensure that the feed rate screening limits are not exceeded.
- c) Tier II emission rate screening limits. Emission rate screening limits are specified in Section 726.Appendix A as a function of TESH and terrain and land use in the vicinity of the facility. Criteria for facilities that are not eligible to comply with the screening limits are provided in subsection  $(b)(7)_T$  above.
  - Noncarcinogenic metals. The emission rates of noncarcinogenic metals must not exceed the screening limits specified in Section 726.Appendix A.
  - 2) Carcinogenic metals. The emission rates of carcinogenic metals must not exceed values derived from the screening limits specified in Section 726.Appendix A. The emission rate of each of these metals is limited to a level such that the sum of the ratios of the actual emission rate to the emission rate screening limit specified in Section 726.Appendix A must not exceed 1.0, as provided by the

following equation:

$$\sum_{i=1}^{n} \frac{A_i}{E_i} \le 1.0$$

 $SUM(Ai/Ei) \leq 1.0$ 

where:

 $\frac{SUM(Xi)\Sigma A_i/E_i}{KA/E}$  means the sum of the values of  $\frac{KA/E}{E}$  for each metal "i", from i = 1 to n.

n = number of carcinogenic metals

 $A_{i} = \underline{the} actual emission rate to the device for metal "i"$ 

 $E_{\dot{t}_i} = \underline{the}$  emission rate screening limit provided by Section 726. Appendix A for metal "i".

- 3) Implementation. The emission rate limits must be implemented by limiting feed rates of the individual metals to levels during the trial burn (for new facilities or an interim status facility applying for a permit) or the compliance test (for interim status facilities). The feed rate averaging periods are the same as provided by subsections (b)(1)(A), and (b)(1)(B), and (b)(2)(B), above. The feed rate of metals in each feedstream must be monitored to ensure that the feed rate limits for the feedstreams specified under Sections 726.202 or 726.203 are not exceeded.
- 4) Definitions and limitations. The definitions and limitations provided by subsection (b), above, and 726.200(g) for the following terms also apply to the Tier II emission rate screening limits provided by this subsection (c): TESH, good engineering practice stack height, terrain type, land use and criteria for facilities not eligible to use the screening limits.
- 5) Multiple stacks.
  - A) Owners and operators of facilities with more than one on-site stack from a BIF, incinerator or other thermal treatment unit subject to controls on metals emissions under a RCRA permit or interim status controls shall comply with the emissions screening limits for any such stacks assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics.
  - B) The worst-case stack is determined by procedures provided in subsection  $(b)(6)_{\tau}$  above.
  - C) For each metal, the total emissions of the metal from those stacks must not exceed the screening limit for the worst-case stack.
- d) Tier III site-specific risk assessment. The requirements of this

subsection apply to facilities complying with either the Tier III or Adjusted Tier I except where specified otherwise.

- 1) General. Conformance with the Tier III metals controls must be demonstrated by emissions testing to determine the emission rate for each metal. In addition, conformance with either Tier III or Adjusted Tier I metals controls must be demonstrated by air dispersion modeling to predict the maximum annual average off-site ground level concentration for each metal and a demonstration that acceptable ambient levels are not exceeded.
- 2) Acceptable ambient levels. Sections 726. Appendicesx D and 726. Appendix E list the acceptable ambient levels for purposes of this Subpart. Reference air concentrations (RACs) are listed for the noncarcinogenic metals and 1E-  $05\times10^{-5}$  RSDs are listed for the carcinogenic metals. The RSD for a metal is the acceptable ambient level for that metal provided that only one of the four carcinogenic metals is emitted. If more than one carcinogenic metal is emitted, the acceptable ambient level for the carcinogenic metals is a fraction of the RSD as described in subsection (d)(3)<sub>T</sub> below.
- 3) Carcinogenic metals. For the carcinogenic metals the sum of the ratios of the predicted maximum annual average off-site ground level concentrations (except that on-site concentrations must be considered if a person resides on site) to the RSD for all carcinogenic metals emitted must not exceed 1.0 as determined by the following equation:

$$\sum_{i=1}^n \frac{P_i}{R_i} \le 1.0$$

 $SUM(Pi/Ri) \leq 1.0$ 

where:

 $\frac{SUM(Xi)\Sigma P_i/R_i}{KP/R}$  means the sum of the values of  $\frac{XP}{R}$  for each metal "i", from i = 1 to n.

n = number of carcinogenic metals

 $P_{\pm_i} = \underline{the \ pPredicted}$  ambient concentration for metal i.

 $R_{\dot{t}_i} = \underline{the} RSD$  for metal i.

- 4) Noncarcinogenic metals. For the noncarcinogenic metals, the predicted maximum annual average off-site ground level concentration for each metal must not exceed the RAC.
- 5) Multiple stacks. Owners and operators of facilities with more than one on-site stack from a BIF, incinerator or other thermal treatment unit subject to controls on metals emissions under a RCRA permit or interim status controls shall conduct emissions testing (except that facilities complying with Adjusted Tier I controls need not conduct emissions testing) and dispersion modeling to demonstrate

that the aggregate emissions from all such on-site stacks do not result in an exceedance of the acceptable ambient levels.

- 6) Implementation. Under Tier III, the metals controls must be implemented by limiting feed rates of the individual metals to levels during the trial burn (for new facilities or an interim status facility applying for a permit) or the compliance test (for interim status facilities). The feed rate averaging periods are the same as provided by subsections (b)(1)(A), and (b)(1)(B), and (b)(2)(B), above. The feed rate of metals in each feedstream must be monitored to ensure that the feed rate limits for the feedstreams specified under Sections 726.202 or 726.203 are not exceeded.
- e) Adjusted Tier I feed rate screening limits. The owner or operator may adjust the feed rate screening limits provided by Section 726. Appendix A to account for site-specific dispersion modeling. Under this approach, the adjusted feed rate screening limit for a metal is determined by back-calculating from the acceptable ambient levels provided by <u>Sections 726. Appendiceesx</u> D and <u>726. Appendix E using dispersion modeling to determine the maximum allowable emission rate. This emission rate becomes the adjusted Tier I feed rate screening limit. The feed rate screening limits for carcinogenic metals are implemented as prescribed in subsection (b) (2)<sub>7</sub> above.
  </u>
- f) Alternative implementation approaches.
  - Pursuant to subsection (f)(2) to below, the Agency shall approve on a case-by-case basis approaches to implement the Tier II or Tier III metals emission limits provided by subsections (c) or (d) above, alternative to monitoring the feed rate of metals in each feedstream.
  - 2) The emission limits provided by subsection (d)<sub>T</sub> above<sub>T</sub> must be determined as follows:
    - For each noncarcinogenic metal, by back-calculating from the RAC provided in Section 726.Appendix D to determine the allowable emission rate for each metal using the dilution factor for the maximum annual average ground level concentration predicted by dispersion modeling in conformance with subsection (h)<sub>T</sub> below; and
    - B) For each carcinogenic metal by:
      - i) Back-calculating from the RSD provided in Section 726.Appendix E to determine the allowable emission rate for each metal if that metal were the only carcinogenic metal emitted using the dilution factor for the maximum annual average ground level concentration predicted by dispersion modeling in conformance with subsection (h)<sub>T</sub> below; and
      - ii) If more than one carcinogenic metal is emitted, selecting an emission limit for each carcinogenic metal not to exceed the emission rate determined by subsection  $(f)(2)(B)(i)_{T}$

above, such that the sum for all carcinogenic metals of the ratios of the selected emission limit to the emission rate determined by that subsection does not exceed 1.0.

- g) Emission testing.
  - General. Emission testing for metals must be conducted using the Multiple Metals Train as described in Section 726.Appendix I—("eye").
  - 2) Hexavalent chromium. Emissions of chromium are assumed to be hexavalent chromium unless the owner or operator conducts emissions testing to determine hexavalent chromium emissions using procedures prescribed in Section 726.Appendix I ("eve").
- h) Dispersion modeling. Dispersion modeling required under this Section must be conducted according to methods recommended in Section 726.Appendix J40 CFR 51, appendix W ("Guideline on Air Quality Models (Revised)" (1986) and its supplements), the "Hazardous Waste Combustion Air Quality Screening Procedure" described in Section 726.Appendix I ("eye"), or in "EPA SCREEN Screening Procedure" as described in Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised" (the latter document is incorporated by reference, seein 35 Ill. Adm. Code 720.111) to predict the maximum annual average off-site ground level concentration. However, on-site concentrations must be considered when a person resides on-site.
- i) Enforcement. For the purposes of permit enforcement, compliance with the operating requirements specified in the permit (under Section 726.202) will be regarded as compliance with this Section. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the requirements of this Section is "information" justifying modification or revocation and re-issuance of a permit under 35 Ill. Adm. Code 703.270 et seq.

(Source: Amended at 18 Ill. Reg. \_\_\_\_, effective \_\_\_\_\_)

Section 726.212 Regulation of Residues

A residue derived from the burning or processing of hazardous waste in a BIF is not excluded from the definition of a hazardous waste under 35 Ill. Adm. Code 721.104(b)(4), <u>(b)(7)</u>, or (b)(8) unless the device and the owner or operator meet the following requirements:

- a) The device meets the following criteria:
  - Boilers. Boilers must burn at least 50% coal on a total heat input or mass basis, whichever results in the greater mass feed rate of coal;
  - 2) Ore or mineral furnaces. Industrial furnaces subject to 35 Ill. Adm. Code 721.104(b)(7) must process at least 50% by weight normal, nonhazardous raw materials;
  - Cement kilns. Cement kilns must process at least 50% by weight normal cement-production raw materials;
- b) The owner or operator demonstrates that the hazardous waste does not significantly affect the residue by demonstrating conformance
with either of the following criteria:

- Comparison of waste-derived residue with normal residue. 1) The waste-derived residue must not contain 35 Ill. Adm. Code 721. Appendix H constituents (toxic constituents) that could reasonably be attributable to the hazardous waste at concentrations significantly higher than in residue generated without burning or processing of hazardous waste, using the following procedure. Toxic compounds that could reasonably be attributable to burning or processing the hazardous waste (constituents of concern) include toxic constituents in the hazardous waste, and the organic compounds listed in 35 Ill. Adm. Code 721. Appendix H that may be PICs. Sampling and analyses must be in conformance with procedures prescribed in <u>"Test Methods for Evaluating</u> Solid Waste, Physical/Chemical Methods<u>", U.S. EPA</u> Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).
  - A) Normal residue. Concentrations of toxic constituents of concern in normal residue must be determined based on analyses of a minimum of 10 samples representing a minimum of 10 days of operation. Composite samples may be used to develop a sample for analysis provided that the compositing period does not exceed 24 hours. The upper tolerance limit (at 95% confidence with a 95% proportion of the sample distribution) of the concentration in the normal residue shall be considered the statistically-derived concentration in the normal residue. If changes in raw materials or fuels reduce the statistically-derived concentrations of the toxic constituents of concern in the normal residue, the statistically-derived concentrations must be revised or statistically-derived concentrations of toxic constituents in normal residue must be established for a new mode of operation with the new raw material or fuel. To determine the upper tolerance limit in the normal residue, the owner or operator shall use statistical procedures prescribed in "Statistical Methodology for Bevill Residue Determinations" in Section 726. Appendix I- ("eye").
  - B) Waste-derived residue. Waste derived residue must be sampled and analyzed as often as necessary to determine whether the residue generated during each 24-hour period has concentrations of toxic constituents that are higher than the concentrations established for the normal residue under subsection (b)(1)(A)<sub> $\tau$ </sub> above. If so, hazardous waste burning has significantly affected the residue and the residue is not excluded from the definition of "hazardous waste". Concentrations of toxic constituents in waste-derived residue must be determined based on analysis of one or more samples obtained over a 24-hour period. Multiple samples may be analyzed, and multiple samples may be taken to form a composite sample for analysis provided that the sampling period does not exceed 24 hours. If more than one sample is analyzed to characterize waste-derived residues generated over a 24-hour period, the concentration of each toxic constituent must be the arithmetic mean of the concentrations in the samples. No results can be disregarded; or

- 2) Comparison of waste-derived residue concentrations with health-based limits.
  - Nonmetal constituents. The concentrations of each A) nonmetal toxic constituents of concern (specified in subsection  $(b)(1)_{\tau}$  above) in the waste-derived residue must not exceed the health-based levels specified in Section 726. Appendix G, or the level of detection (using analytical procedures prescribed in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", U.S. EPA Publication\_SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111), whichever is higher. If a health-based limit for a constituent of concern is not listed in Section 726. Appendix G, then a limit of 0.002  $\frac{\mu\mu}{g}/kg$  or the level of detection (using analytical procedures prescribed in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", U.S. EPA Publication SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111), whichever is higher, must be used. The levels specified in Section 726. Appendix G (and the default level of 0.002 µg/kg or the level of detection for constituents, as identified in Note 1 of Section 726. Appendix G) are administratively stayed under the condition, for those constituents specified in subsection (b)(1) above, that the owner or operator complies with alternative levels defined as the land disposal restriction limits specified in 35 Ill. Adm. Code 728.143 and 728.Table B for F039 nonwastewaters. In complying with those alternative levels, if an owner or operator is unable to detect a constituent despite documenting use of the best good-faith efforts, as defined by applicable U.S. EPA guidance and standards, the owner or operator is deemed to be in compliance for that constituent. Until U.S. EPA develops new guidance or standards, the owner or operator may demonstrate such good-faith efforts by achieving a detection limit for the constituent that does not exceed an order of magnitude above (ten times) the level provided by 35 Ill. Adm. Code 728.143 and 728.Table B for F039 nonwastewaters. The stay will remain in effect until further rulemaking action is taken; and
  - B) Metal constituents. The concentration of metals in an extract obtained using the TCLP test must not exceed the levels specified in Section 726.Appendix G; and
  - C) Sampling and analysis. Wastewater-derived residue must be sampled and analyzed as often as necessary to determine whether the residue generated during each 24 hour period has concentrations of toxic constituents which that are higher than the health-based levels. Concentrations of concern in the wastewater-derived residue must be determined based on analysis of one or more samples obtained over a 24-hour period. Multiple samples may be analyzed, and multiple samples may be taken to form a composite for analysis provided that the sampling period does not exceed 24 hours. If more than one sample is analyzed to characterize wastederived residues generated over a 24 hour period, the concentration of each toxic constituent is the arithmetic mean of the concentrations of the samples.

- c) Records sufficient to document compliance with the provisions of this Section must be retained until closure of the BIF unit. At a minimum, the following must be recorded:
  - Levels of constituents in 35 Ill. Adm. Code 721.Appendix H that are present in waste-derived residues;
  - 2) If the waste-derived residue is compared with normal residue under subsection (b)(1)<sub>7</sub> above:
    - A) The levels of constituents in 35 Ill. Adm. Code 721.Appendix H that are present in normal residues; and
    - B) Data and information, including analyses of samples as necessary, obtained to determine if changes in raw materials or fuels would reduce the concentration of toxic constituents of concern in the normal residue.

(Source: Amended at 18 Ill. Reg. \_\_\_\_, effective \_\_\_\_\_)

Section 726.Appendix G Health-Based Limits for Exclusion of Waste-Derived Residues

**BOARD** NOTE 1: **TUnder Section 726.212(b)(2)(A), the health-based** concentration limits for 35 Ill. Adm. Code 721.Appendix H constituents for which a health-based concentration is not provided below is  $0.002 \ \mu g/kg \ (0.000002E-06 \ mg/kg)$ .

NOTE 2: The levels specified in this Section and the default level of  $0.002 \mu g/kq$  (0.000002 mg/kg) or the level of detection for constituents, as identified in Note 1, are administratively stayed under the condition, for those constituents specified in Section 726.212(b)(1), that the owner or operator complies with alternative levels defined as the land disposal restriction limits specified in 35 Ill. Adm. Code 728.143 and 728.Table B for F039 nonwastewaters. See Section 726.212(b)(2)(A).

#### Metals-TCLP Extract Concentration Limits

| Constituent | CAS No.   | Concentration<br>limits (mg/L) |
|-------------|-----------|--------------------------------|
| Antimony    | 7440-36-0 | 1 <u>.</u> E+00                |
| Arsenic     | 7440-38-2 | 5 <u>. <del>E+00</del></u>     |
| Barium      | 7440-39-3 | 100.E+02                       |
| Bervllium   | 7440-41-7 | 0.007 <del>E-03</del>          |
| Cadmium     | 7440-43-9 | 1.E+00                         |
| Chromium    | 7440-47-3 | 5 <del>.±+00</del>             |
| Lead        | 7439-92-1 | 5 <del>. ±+00</del>            |
| Mercurv     | 7439-97-6 | 0.2 <del>E-01</del>            |
| Nickel      | 7440-02-0 | 70. <del>E+01</del>            |
| Selenium    | 7782-49-2 | 1. <del>E+00</del>             |
| Silver      | 7440-22-4 | 5 <del>. =+00</del>            |
| Thallium    | 7440-28-0 | 7 <u>.</u> =+00                |
|             |           |                                |

## Nonmetals-Residue Concentration Limits

| Constituent   | CAS No.   | Concentration<br>limits for<br>residues<br>(mg/kg)   |
|---|---|--|
| Acetonitrile<br>Acetophenone<br>Acrolein<br>Acrylamide<br>Acrylonitrile<br>Aldrin   | 75-05-8<br>98-86-2<br>107-02-8<br>79-06-1<br>107-13-1<br>309-00-2   | $\begin{array}{r} \underline{0.2E-01}\\ 4\underline{.E+00}\\ \underline{0.5E-01}\\ \underline{0.0002E-04}\\ \underline{0.0007E-04}\\ \underline{0.00002E-}\\ \underline{0.000002E-}\\ \underline{0.0000002E-}\\ \underline{0.000002E-}\\ \underline{0.000002E-}\\ \underline{0.000002E-}\\ \underline{0.000002E-}\\ \underline{0.000002E-}\\ \underline{0.0000002E-}\\$ |
| Allyl alcohol<br>Aluminum phosphide<br>Aniline<br>Barium cyanide<br>Benz(a)anthracene<br>Benzene<br>Benzidine   | 107-18-6<br>20859-73-8<br>62-53-3<br>542-62-1<br>56-55-3<br>71-43-2<br>92-87-5                                  | 0.2 <del>E-01</del><br>0.01 <del>E-02</del><br>0.06 <del>E-02</del><br>1. <del>E+00</del><br>0.0001 <del>E-04</del><br>0.0005 <del>E-03</del><br>0.000001 <del>E-</del>  |
| Bis(2-chloroethyl) ether<br>Bis(chloromethyl) ether   | 111-44-4<br>542-88-1  | $\frac{0.0003E-04}{0.000002E-}$  |
| Bis(2-ethylhexyl) phthalate<br>Bromoform<br>Calcium cyanide   | 117-81-7<br>75-25-2<br>592-01-8   | 30.E+010.7E-010.000001E-06   |
| Carbon disulfide<br>Carbon tetrachloride<br>Chlordane<br>Chlorobenzene<br>Chloroform<br>Copper cyanide<br>Cresols (Cresylic acid)<br>Cyanogen<br>DDT<br>Dibenz(a, h)-anthracene | 75-15-0<br>56-23-5<br>57-74-9<br>108-90-7<br>67-66-3<br>544-92-3<br>1319-77-3<br>460-19-5<br>50-29-3<br>53-70-3 | $4 \underline{E+00} \\ \underline{0.005E-03} \\ \underline{0.0003E-04} \\ 1 \underline{E+00} \\ \underline{0.06E-02} \\ \underline{0.2E-01} \\ 2 \underline{E+00} \\ 1 \underline{E+00} \\ 1 \underline{E+00} \\ \underline{0.001E-03} \\ \underline{0.000007E-03} \\ \underline{0.000007E-03} \\ \underline{0.000007E-03} \\ \underline{0.0000007E-03} \\ \underline{0.00000000007E-03} \\ 0.00000000000000000000000000000000000$   |
| 1,2-Dibromo-3-chloropropane<br>p-Dichlorobenzene<br>Dichlorodifluoromethane<br>1,1-Dichloroethylene<br>2,4-Dichlorophenol<br>1,3-Dichloropropene<br>Dieldrin                    | 96-12-8<br>106-46-7<br>75-71-8<br>75-35-4<br>120-83-2<br>542-75-6<br>60-57-1                                    | $\begin{array}{r} & \underline{0.0000}_{2E} \\ & \underline{0.07.5E-02} \\ & 7\underline{E+00} \\ & \underline{0.005E-03} \\ & \underline{0.001E-03} \\ & \underline{0.0001E-03} \\ & \underline{0.00002E-} \\ & \underline{0.00002E-} \end{array}$  |
| Diethyl phthalate<br>Diethylstilbestrol   | 84-66-2<br>56-53-1  | 3 <u>0.</u> <del>E+01</del>  |
| Dimethoate<br>2,4-Dinitrotoluene<br>Diphenylamine<br>1,2-Diphenylhydrazine<br>Endosulfan<br>Endrin<br>Epichlorohydrin<br>Ethylene dibromide                                     | 60-51-5<br>121-14-2<br>122-39-4<br>122-66-7<br>115-29-7<br>72-20-8<br>106-89-8<br>106-93-4                      | $ \begin{array}{r}                                 $   |
| Ethylene oxide  | 75-21-8   | <u>0.000000</u> 4 <del>E-07</del><br><u>0.000</u> 3 <del>E-04</del>  |

| Fluorine                               | 7782-41-4                    | A ELOO                         |
|--|------------------------------|--------------------------------|
| Fiuorine<br>Remain anid                | 64-19-6                      | 70 F+01                        |
| Formic actu                            | 76                           | / <u>0.</u>                    |
| heptachior                             | /0-44-8                      | 0.00008                        |
|  |                              | <del>05</del>                  |
| Heptachlor epoxide                     | 1024-57-3                    | <u>0.0000</u> 4 <del>5</del> - |
|  |                              | <del>05</del>                  |
| Hexachlorobenzene                      | 118-74-1                     | <u>0.000</u> 2 <del>E-04</del> |
| Hexachlorobutadiene                    | 87-68-3                      | <u>0.00</u> 5 <del>E-03</del>  |
| Hexachlorocyclopentadiene              | 77-47-4                      | 0.2 <del>E-01</del>            |
| Hexachlorodibenzo-p-dioxins            | 19408-74-3                   |                                |
| -                                      |                              | 0.0000006 <del>E</del> -       |
|  |                              | 08                             |
| Heyachloroethane                       | 67-72-1                      | 0.038-02                       |
| Hudrazine                              | 302-01-1                     | $\frac{0}{0}$ 0001E-04         |
| Hydrogon gwonido                       | 74_90_9                      |                                |
| nydrogen cyanide                       | 74-90-8                      | <u>0.0000</u> / <del>s</del> - |
| The American and fide                  | 7702 06 4                    |                                |
| Hydrogen Bullide                       | 1183-06-4                    | 0.00001#-                      |
|  |                              | <del>06</del>                  |
| Isobutyl alcohol                       | 78-83-1                      | 1 <u>0.<del>5+01</del></u>     |
| Methomyl                               | 16752-77-5                   | 1 <u>.</u> ≌+00                |
| Methoxychlor                           | 72-43-5                      | 0.1 <del>E-01</del>            |
| 3-Methylcholanthrene                   | 56-49-5                      | $\overline{0.0004}$            |
| · ···································· |                              | 05                             |
| 4.4'-Methylenebis (2-chloroaniline)    | 101-14-4                     | 0.002 = 03                     |
| Methylene chloride                     | 75-09-2                      | $\frac{0.000}{0.05E-00}$       |
| Methylene Chioride                     |                              |                                |
| Metnyl etnyl ketone (MEK)              | /8-93-3                      | 2.8+00                         |
| Metnyi nyarazine                       | 60-34-4                      | 0.0003 = -04                   |
| Methyl parathion                       | 298-00-0                     | <u>0.0</u> 2 <del>E-02</del>   |
| Naphthalene                            | 91-20-3                      | 1 <u>0.<del>5+01</del></u>     |
| Nickel cyanide                         | 557-19-7                     | 0.7 <del>E-01</del>            |
| Nitric oxide                           | 10102-43-9                   | 4.E+00                         |
| Nitrobenzene                           | 98-95-3                      | 0.02 = -02                     |
| N-Nitrosodi-n-butylamine               | 924-16-3                     | 0.0006                         |
|  |                              | AF.                            |
| N-Nitrosodiethylamine                  | 55-18-5                      | 0.000028-                      |
|  |                              | n <del>c</del>                 |
| N-Nitrogo-N-methylurea                 | 684-93-5                     | 80                             |
| N MICIOBO M Meenyiulea                 | 004 75 5                     | 0 0000018-07                   |
| NT NTikus namuumalidina                | 000 55 0                     | <u>0.0000015-07</u>            |
| N-Nitrosopyrrolidine                   | 930-55-2                     | 0.0002 = -04                   |
| Pentachlorobenzene                     | 608-93-5                     | <u>0.0</u> 3 <del>E-02</del>   |
| Pentachloronitrobenzene (PCNB)         | 82-68-8                      | <u>0.</u> 1 <del>E-01</del>    |
| Pentachlorophenol                      | 87-86-5                      | 1 <u>.</u> <del>E+00</del>     |
| Phenol                                 | 108-95-2                     | 1.E+00                         |
| Phenvlmercury acetate                  | 62-38-4                      | 0.003 = 0.3                    |
| Phosphine                              | 7803-51-2                    | 0.01 = 0.02                    |
| Polychlorinated hiphenyls NOS          | 1336-36-3                    | $0.0005E_{-}$                  |
| Forychiorinated Diphenyis, w.o.s       | 1000-00-0                    | 0.00003                        |
| Potaggium ovanide                      | 151-50-8                     | 00<br>0 5 100                  |
| Polassium cilmon suppide               |                              | 2 <u>-5+00</u>                 |
| Potassium silver cyanide               | 506-61-6                     | / <u>.</u> #+00                |
| Pronamide                              | 23950-58-5                   | 3 <u>.</u> <del>E+00</del>     |
| Pyridine                               | 110-86-1                     | <u>0.0</u> 4 <del>E-02</del>   |
| Reserpine                              | 50-55-5                      | <u>0.0000</u> 3 <del>5-</del>  |
|  |                              | <del>05</del>                  |
| Selenourea                             | 630-10-4                     | 0.2 <del>E-01</del>            |
| Silver cyanide                         | 506-64-9                     | 4.E+00                         |
| Sodium cvanide                         | 143-33-9                     | 1 == 00                        |
| Struchning                             | 57-24-9                      | 0.01 m $-0.02$                 |
| 1 0 A E-Motwardlovchon-one             | 9, 2, 2, -9<br>95 - 9, 4 - 2 |                                |
| 1,2,4,5-Tetrachioucodenzene            | 70-34-3                      | 0.018-02                       |
| 1, 1, 2, 2-tetrachioroethane           | /9-34-5                      | 0.002 = -03                    |
| Tetrachloroethylene                    | 127-18-4                     | <u>0.</u> 7 <del>E-01</del>    |
| 2,3,4,6-Tetrachlorophenol              | 58-90-2                      | <u>0.0</u> 1 <del>E-02</del>   |
| Tetraethyl lead                        | 78-00-2                      | <u>0.00000</u> 4 <del>E-</del> |
|  |                              |                                |

|                            |           | <del>06</del>                  |
|----------------------------|-----------|--------------------------------|
| Thiourea                   | 62-56-6   | <u>0.000</u> 2 <del>E-04</del> |
| Toluene                    | 108-88-3  | 10. <del>E+01</del>            |
| Toxaphene                  | 8001-35-2 | 0.005 <del>E-03</del>          |
| 1,1,2-Trichloroethane      | 79-00-5   | 0.006 <del>E-03</del>          |
| Trichloroethylene          | 79-01-6   | 0.005 <del>E-03</del>          |
| Trichloromonofluoromethane | 75-69-4   | 10.E+01                        |
| 2,4,5-Trichlorophenol      | 95-95-4   | 4 <u>.</u> E+00                |
| 2,4,6-Trichlorophenol      | 88-06-2   | 4 <del>. ±+00</del>            |
| Vanadium pentoxide         | 1314-62-1 | 0.7 <del>5-01</del>            |
| Vinyl chloride             | 75-01-4   | 0.002 <del>E-03</del>          |
|                            |           |                                |

# (Source: Amended at 18 Ill. Reg. \_\_\_\_, effective \_\_\_\_\_)

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

# **PART 728**

## LAND DISPOSAL RESTRICTIONS

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AUTHORITY: Implementing Section 22.4 and authorized by Section 27 of the Environmental Protection Act (Ill. Rev. Stat. 1991, ch. 111½, pars. 1022.4 and 1027 [415 ILCS 5/22.4 and 27]).

SOURCE: Adopted in R87-5 at 11 Ill. Reg. 19354, effective November 12, 1987; amended in R87-39 at 12 Ill. Reg. 13046, effective July 29, 1988; amended in R89-1 at 13 Ill. Reg. 18403, effective November 13, 1989; amended in R89-9 at 14 Ill. Reg. 6232, effective April 16, 1990; amended in R90-2 at 14 Ill. Reg. 14470, effective August 22, 1990; amended in R90-10 at 14 Ill. Reg. 16508, effective September 25, 1990; amended in R90-11 at 15 Ill. Reg. 9462, effective June 17, 1991; amended in R92-10 at 17 Ill. Reg. 5727, effective March 26, 1993; amended in R93-4 at 17 Ill. Reg. 20692, effective November 22, 1993; amended in R93-16 at 18 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_\_\_, effective

#### SUBPART A: GENERAL

Section 728.107 Waste Analysis and Recordkeeping

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 a) Except as specified in Section 728.132, where a generator's waste is listed in 35 Ill. Adm. Code 721.Subpart D, the generator shall test its waste, or test an extract using the test method described in 35 Ill. Adm. Code 721.Appendix BToxicity Characteristic Leaching Procedure, Method 1311, in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", U.S. EPA Publication SW-846, as incorporated by reference in 35 Ill. Adm. Code 720.111, or use knowledge of the waste, to determine if the waste is restricted from land disposal under this Part. Except as specified in Section 728.132, if a generator's waste exhibits one or more of the characteristics set out at 35 Ill. Adm. Code 721.Subpart C, the generator shall test an extract using the test method described in Section 728.Appendix IToxicity Characteristic Leaching Procedure, Method 1311, in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", U.S. EPA Publication SW-846, as incorporated by reference in 35 Ill. Adm. Code 720.111, or use knowledge of the waste, to determine if the waste is restricted from land disposal under this Part. If the generator determines that its waste displays the characteristic of ignitability (D001) (and is not in the High TOC Ignitable Liquids Subcategory or is not treated by INCIN, FSUBS, or RORGS of Section 728.Table C of this Part), or the characteristic or corrosivity (D002), and is prohibited under Section 728.137, the generator shall determine what underlying hazardous constituents (as defined in Section 728.102 of this Part), are reasonably expected to be present in the D001 or D002 waste.

- 1) If a generator determines that the generator is managing a restricted waste under this Part and determines that the waste does not meet the applicable treatment standards set forth in Subpart D of this Part or exceeds the applicable prohibition levels set forth in Section 728.132 or 728.139, with each shipment of waste the generator shall notify the treatment or storage facility in writing of the appropriate treatment standard set forth in Subpart D of this Part and any applicable prohibition levels set forth in Subpart D of this Part and any applicable prohibition levels set forth in Section 728.132 or 728.139. The notice must include the following information:
  - A) U.S. EPA hazardous waste number;
  - B) The corresponding treatment standards for wastes F001 through F005, F039, wastes prohibited pursuant to Section 728.132 or Section 3004(d) of the Resource Conservation and Recovery Act, referenced in Section 728.139. Treatment standards for all other restricted wastes must either be included, or be referenced by including on the notification the applicable wastewater (as defined in Section 728.102(f)) or nonwastewater (as defined in Section 728.102(d)) category, the applicable subcatogory made within a waste code based on waste-specific criteria (such as D003 reactive cyanides), and the Sections and subsections where the applicable treatment standard appears. Where the applicable treatment standards are expressed as specified technologies in Section 728.142, the applicable five-letter treatment code found in Section 728. Table C (e.g., INCIN, WETOX) also must be listed on the notification.
  - C) The manifest number associated with the shipment of waste; and
  - D) For hazardous debris, the contaminants subject to treatment as provided by Section 728.145(b) and the following statement: "This hazardous debris is subject to the alternative treatment standards of 35 Ill. Adm. Code 728.145; and
  - E) Waste analysis data, where available.
- 2) If a generator determines that the generator is managing a

restricted waste under this Part, and determines that the waste can be land disposed without further treatment, with each shipment of waste the generator shall submit, to the treatment, storage or land disposal facility, a notice and a certification stating that the waste meets the applicable treatment standards set forth in Subpart D<u>of this Part</u> and the applicable prohibition levels set forth in Section 728.132 or 728.139. Generators of hazardous debris that is excluded from the definition of hazardous waste under 35 Ill. Adm. Code 721.103(c), 35 Ill. Adm. Code 728.103(f)(2) and 35 Ill. Adm. Code 720.122 (i.e. debris that is delisted), however are not subject to these notification and certififcation requirements.

- A) The notice must include the following information:
  - i) U.S. EPA hazardous waste number;
  - ii) The corresponding treatment standards for wastes F001 through F005, F039 and wastes prohibited pursuant to Section 728.132 or Section 3004(d) of the Resource Conservation and Recovery Act, referenced in Section 728.139. Treatment standards for all other restricted wastes must either be included or referenced by including on the notification the applicable wastewater or nonwastewater (as defined in Section 728.102) category, the applicable subdivisions made within a waste code based on waste-specific criteria (such as D003, reactive cyanides), and the Section and subsection where the applicable treatment standard appears. Where the applicable treatment standards are expressed as specified technologies in Section 728.142, the applicable five-letter treatment code found in Section 728. Table C (e.g., INCIN, WETOX) also must be listed on the notification.
  - iii) The manifest number associated with the shipment of waste;
  - iv) Waste analysis data, where available
- B) The certification must be signed by an authorized representative and must state the following:

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 35 Ill. Adm. Code 728.Subpart D and all applicable prohibitions set forth in 35 Ill. Adm. Code 728.132, 728.139 or Section 3004(d) of the Resource Conservation and Recovery Act. I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

- 3) If a generator's waste is subject to an exemption from a prohibition on the type of land disposal method utilized for the waste (such as, but not limited to, a case-by-case extension under Section 728.105, an exemption under Section 728.106, an extension under Section 728.101(c)(3) or a nationwide capacity variance under 40 CFR 268.Subpart C (19892), with each shipment of waste, the generator shall submit a notice with the waste to the facility receiving the generator's waste, stating that the waste is not prohibited from land disposal. The notice must include the following information:
  - A) U.S. EPA hazardous waste number:
  - B) The corresponding treatment standards for wastes F001 through F005, F039 and wastes prohibited pursuant to Section 728.132 or Section 3004(d) of the Resource Conservation and Recovery Act, referenced in Section 728.139. Treatment standards for all other restricted wastes must either be included or be referenced by including on the notification the , and the Section and subsection where the applicable treatment standard appears. Where the applicable treatment standards are expressed as specified technologies in Section 728.142, the applicable five-letter treatment code found in Section 728.Table C (e.g., INCIN, WETOX) also must be listed on the notification.
  - C) The manifest number associated with the shipment of waste;
  - D) Waste analysis data, where available;
  - E) For hazardous debris, the contaminenets subject to treatment as provided by Section 728.145(b) and the following statement: "This hazardous debris is subject to the alternative treatment standards of 35 Ill. Adm. Code 728.145"; and
  - F) The date the waste is subject to the prohibitions.
- 4) If a generator is managing a prohibited waste in tanks or containers regulated under 35 Ill. Adm. Code 722.134, and is treating such waste in such tanks, containers or containment buildings to meet applicable treatment standards under Subpart D of this Part, the generator shall develop and follow a written waste analysis plan which that describes the procedures the generator will carry out to comply with the treatment standards. The plan must be kept on-site in the generator's records, and the following requirements must be met:
  - A) The waste analysis plan must be based on a detailed chemical and physical analysis of a representative sample of the prohibited wastes being treated, and contain all information necessary to treat the wastes in accordance with the requirements of this Part, including the selected testing frequency.
  - B) Such plan must be filed with the Agency a minimum of 30 days prior to the treatment activity, with delivery verified.

- C) Wastes shipped off-site pursuant to this subsection must comply with the notification requirements of Section 728.107(a)(2).
- 5) If a generator determines whether the waste is restricted based solely on the generator's knowledge of the waste, the generator shall retain all supporting data used to make this determination on-site in the generator's files. If a generator determines whether the waste is restricted based on testing the waste or an extract developed using the test method described in Section 728.Appendix A, the generator shall retain all waste analysis data on site in the generator's files.
- 6) If a generator determines, subsequent to the time of generation, that the generator is managing a restricted waste whichthat is excluded from the definition of hazardous or solid waste or exempt from regulation as a RCRA hazardous waste under 35 Ill. Adm. Code 721.102 through 721.106, the generator shall place, in the facility's file, a one-time notice stating such generation, subsequent exclusion from the definition of hazardous or solid waste or exemption from regulation as a RCRA hazardous waste, and the disposition of the waste.
- 7) Generators shall retain on-site a copy of all notices, certifications, demonstrations, waste analysis data and other documentation produced pursuant to this Section for at least five years from the date that the waste that is the subject of such documentation was last sent to on-site or off-site treatment storage or disposal. The five year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Agency. The requirements of this subsection apply to solid wastes even when the hazardous characteristic is removed prior to disposal, or when the waste is excluded from the definition of hazardous or solid waste under 35 Ill. Adm. Code 721.102 through 721.106, or exempted from regulation as a RCRA hazardous waste subsequent to the point of generation.
- 8) If a generator is managing a lab pack that contains wastes identified in Section 728.Appendix D and wishes to use the alternative treatment standard under Section 728.142, with each shipment of waste the generator shall submit a notice to the treatment facility in accordance with subsection (a)(1) above. The generator shall also comply with the requirements in subsections (a)(5) and (a)(6) abover and shall submit the following certification, which must be signed by an authorized representative:

I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only the wastes specified in 35 Ill. Adm. Code 728.Appendix D or solid wastes not subject to regulation under 35 Ill. Adm. Code 721. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

9) If a generator is managing a lab pack that contains organic wastes specified in Section 728. Appendix E and wishes to use

the alternate treatment standards under Section 728.142, with each shipment of waste the generator shall submit a notice to the treatment facility in accordance with subsection (a)(1) above. The generator also shall comply with the requirements in subsections (a)(5) and (a)(6) above, and shall submit the following certification which that must be signed by an authorized representative:

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste and that the lab pack contains only organic waste specified in 35 Ill. Adm. Code 728.Appendix E or solid wastes not subject to regulation under 35 Ill. Adm. Code 721. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

- 10) Small quantity generators with tolling agreements pursuant to 35 Ill. Adm. Code 722.120(e) shall comply with the applicable notification and certification requirements of subsection (a) above for the initial shipment of the waste subject to the agreement. Such generators shall retain onsite a copy of the notification and certification, together with the tolling agreement, for at least three years after termination or expiration of the agreement. The three-year record retention period is automatically extended following notification pursuant to Section 31(d) of the Environmental Protection Act, until either any subsequent enforcement action is resolved, or the Agency notifies the generator documents need no be retained.
- b) Treatment facilities shall test their wastes according to the frequency specified in their waste analysis plans as required by 35 Ill. Adm. Code 724.113 or 725.113. Such testing must be performed as provided in subsections (b)(1), (b)(2) and (b)(3) below.
  - 1) For wastes with treatment standards expressed as concentrations in the waste extract (Section 728.141), the owner or operator of the treatment facility shall test the treatment residues or an extract of such residues developed using the test method described in Section 728.Appendix A to assure that the treatment residues or extract meet the applicable treatment standards.
  - 2) For wastes prohibited under Section 728.132 or 728.139 whichthat are not subject to any treatment standards under Subpart D of this Part, the owner or operator of the treatment facility shall test the treatment residues according to the generator testing requirements specified in Section 728.132 to assure that the treatment residues comply with the applicable prohibitions.
  - 3) For wastes with treatment standards expressed as concentrations in the waste (Section 728.143), the owner or operator of the treatment facility shall test the treatment residues (not an extract of such residues) to assure that the treatment residues meet the applicable treatment standards.
  - 4) A notice must be sent with each waste shipment to the land

disposal facility which that includes the following information, except that debris excluded from the definition of the hazardous waste under Section 728.103(f)(2) (i.e., debris treated by an extraction or destruction technology provided by Section 728.Table F, and debris that is delisted) is subject to the notififcation and certification requirments of subsection (d) below rather than these notification requirments:

- A) U.S. EPA hazardous waste number;
- B) The corresponding treatment standards for wastes F001 through F005, F039, wastes prohibited pursuant to Section 728.132 or Section 3004(d) of the Resource Conservation and Recovery Act, referenced in Section 728.139, and for underlying hazardous constituents (as defined in Section 728.102 of this Part), in D001 and D002 wastes if those wastes are prohibited under Section 728.137 of this Part. Treatment standards for all other restricted wastes must either be included, or be referenced by including on the notification the applicable wastewater (as defined in Section 728.102(f)) or nonwastewater (as defined in Section 728.102(d)) category, the applicable subdivisions made within a waste code based on waste-specific criteria (such as D003 reactive cyanides), and the Sections and subsections where the applicable treatment standard appears. Where the applicable treatment standards are expressed as specified technologies in Section 728.142, the applicable five-letter treatment code found in Section 728. Table C (e.g., INCIN, WETOX) also must be listed on the notification.
- C) The manifest number associated with the shipment of waste; and
- D) Waste analysis data, where available.
- 5) The treatment facility shall submit a certification with each shipment of waste or treatment residue of a restricted waste to the land disposal facility stating that the waste or treatment residue has been treated in compliance with the treatment standards specified in Subpart D<u>of this Part</u> and the applicable prohibitions set forth in Section 728.132 or 728.139. Debris excluded from the definiton of hazardous waste under Section 728.103(f)(2) (i.e., debris treated by an extraction or destruction technology provided by Section 728.Table F, and debris that is delisted), however, is subject to the notififcation and certication requirments of subsection (d) below rather than the certification requirements of subsection (b)(5).
  - A) For wastes with treatment standards expressed as concentrations in the waste extract or in the waste (Sections 728.141 or 728.143), or for wastes prohibited under Section 728.132 or 728.139 which that are not subject to any treatment standards under Subpart D of this Part, the certification must be signed by an authorized representative and must state the following:

I certify under penalty of law that I have

personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the performance levels specified in 35 Ill. Adm. Code 728.Subpart D and all applicable prohibitions set forth in 35 Ill. Adm. Code 728.132 or 728.139 or Section 3004(d) of the Resource Conservation and Recovery Act without impermissible dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

B) For wastes with treatment standards expressed as technologies (Section 728.142), the certification must be signed by an authorized representative and must state the following:

> I certify under penalty of law that the waste has been treated in accordance with the requirements of 35 Ill. Adm. Code 728.142. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

C) For wastes with treatment standards expressed as concentrations in the waste pursuant to Section 728.143, if compliance with the treatment standards in Subpart D of this Part is based in part or in whole on the analytical detection limit alternative specified in Section 728.143(c), the certification also must state the following:

> I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by incineration in units operated in accordance with 35 Ill. Adm. Code 724.Subpart O or 35 Ill. Adm. Code 725. Subpart O, or by combustion in fuel substitution units operating in accordance with applicable technical requirements, and I have been unable to detect the nonwastewater organic constituents despite having used best good faith efforts to analyze for such constituents. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

6) If the waste or treatment residue will be further managed at a different treatment or storage facility, the treatment, storage or disposal facility sending the waste or treatment residue off-site must comply with the notice and certification requirements applicable to generators under this Section.

- 7) Where the wastes are recyclable materials used in a manner constituting disposal subject to the provisions of 35 Ill. Adm. Code 726.120(b), regarding treatment standards and prohibition levels, the owner or operator of a treatment facility (i.e. the recycler) is not required to notify the receiving facility pursuant to subsection (b)(4) above. With each shipment of such wastes the owner or operator of the recycling facility shall submit a certification described in subsection (b)(5) abover and a notice which that includes the information listed in subsection (b)(4) above (except the manifest number) to the Agency. The recycling facility also shall keep records of the name and location of each entity receiving the hazardous waste-derived product.
- c) Except where the owner or operator is disposing of any waste that is a recyclable material used in a manner constituting disposal pursuant to 35 Ill. Adm. Code 726.120(b), the owner or operator of any land disposal facility disposing any waste subject to restrictions under this Part shall:
  - Have copies of the notice and certification specified in subsection (a) or (b) above, and the certification specified in Section 728.108 if applicable.
  - 2) Test the waste, or an extract of the waste or treatment residue developed using the test method described in Section 728.Appendix A or using any methods required by generators under Section 728.132, to assure that the wastes or treatment residues are in compliance with the applicable treatment standards set forth in Subpart D of this Part and all applicable prohibitions set forth in Sections 728.132 or 728.139. Such testing must be performed according to the frequency specified in the facility's waste analysis plan as required by 35 Ill. Adm. Code 724.113 or 725.113.
  - 3) Where the owner or operator is disposing of any waste that is subject to the prohibitions under Section 728.133(f) but not subject to the prohibitions set forth in Section 728.132, the owner or operator shall ensure that such waste is the subject of a certification according to the requirements of Section 728.108 prior to disposal in a landfill or surface impoundment unit, and that such disposal is in accordance with the requirements of Section 728.105(h)(2). The same requirement applies to any waste that is subject to the prohibitions under Section 728.133(f) and also is subject to the statutory prohibitions in the codified prohibitions in Section 728.139 or Section 728.132.
  - 4) Where the owner or operator is disposing of any waste that is a recyclable material used in a manner constituting disposal subject to the provisions of 35 Ill. Adm. Code 726.120(b), the owner or operator is not subject to subsections (c)(1) through (c)(3) above with respect to such waste.
- d) Generators or treaters whothat first claim that hazardous debris is excluded from the definition of hazardous waste under 35 Ill. Adm. Code 728.103(f)(2) (i.e., debris treated by an extraction or

destruction technology provided by Section 728.Table F, and debris that has been delisted) are subject to the following notification and certification requirements:

- 1) A one-time notification must be submitted to the Agency including the following information:
  - A) The name and address of the RCRA Subtitle D facility receiving the treated debris;
  - B) A description of the hazardous debris as initially generated, including the applicable U.S. EPA hazardous waste numbers; and
  - C) For debris excluded under 35 Ill. Adm. Code 728.103(f)(2), the technology from Section 728.Table F, used to treat the debris.
- 2) The notification must be updated if the debris is shipped to a different facility, and, for debris excluded 35 Ill. Adm. Code 721.2(d)(1), if a different type of debris is treated or if a different technology is used to treat the debris.
- 3) For debris excluded under 35 Ill. Adm. Code 728.103(f)(2), the owner or operator of the treatment facility shall document and certify compliance with the treatment standards of Section 728.Table F, as follows:
  - A) Records must be kept of all inspections, evaluations, and analyses of treated debris that are made to determine compliance with the treatment standards;
  - B) Records must be kept of any data or information the treater obtains during treatment of the debris that identifies key operating parameters of the treatment unit; and
  - C) For each shipment of treated debris, a certification of compliance with the treatment standards must be signed by an authorized representative and placed in the facility's files. The certification must state the following: "I certify under penalty of law that the debris has been treated in accordance with the requirements of 35 Ill. Adm. Code 728.145. I am aware that there are significant penalties for making a false certification, including the possibility of fine and imprisonment."

(Source: Amended at 18 Ill. Reg. \_\_\_\_, effective \_\_\_\_\_)

### SUBPART D: TREATMENT STANDARDS

Section 728.140 Applicability of Treatment Standards

 a) A restricted waste identified in Section 728.141 may be land disposed only if an extract of the waste or of the treatment residue of the waste developed using the test method 35 Ill. Adm. Code 721.Appendix BMethod 1311, the Toxicity Characteristic Leaching Procedure, does not exceed the value shown in Section 728.Table A for any hazardous constituent listed in Section 728.Table A for that waste, with the following exceptions: D004, D008, K031, K084, K101, K102, P010, P011, P012, P036, P038 and U136. These wastes may be land disposed only if an extract of the waste or of the treatment residue of the waste developed using either the test method in 35 Ill. Adm. Code 721.Appendix BMethod 1310, the Extraction Procedure Toxicity Test, or Method 1311, the Toxicity Characteristic Leaching Procedure, or the test method in Section 728.Appendix A does not exceed the value shown in Section 728.Table B for any hazardous constituent listed in Section 728.Table A for that waste. Methods 1310 and 1311 are both found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", U.S. EPA Publication SW-846, as incorporated by reference in 35 Ill. Adm. Code 720.111.

- b) A restricted waste for which a treatment technology is specified under Section 728.142(a) or hazardous debris for which a treatment technology is specified under Section 728.145 may be land disposed after it is treated using that specified technology or an equivalent treatment method approved by the Agency under the procedures set forth in Section 728.142(b). For waste displaying the characteristic of ignitability (D001) and reactivity (D003), that are diluted to meet the deactivation treatment standard in Section 728.Tables C and D (DEACT), the treater shall comply with the precautionary measures specified in 35 Ill. Adm. Code 724.117(b) and 35 Ill. Adm. Code 725.117(b).
- c) Except as otherwise specified in Section 728.143(c), a restricted waste identified in Section 728.143 may be land disposed only if the constituent concentrations in the waste or treatment residue of the waste do not exceed the value shown in Section 728.Table B for any hazardous constituent listed in Section 728.Table B for that waste.
- d) If a treatment standard has been established in Sections 728.141 through 728.143 for a hazardous waste that is itself subject to those standards rather than the standards for hazardous debris under Section 728.145.

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(Source: Amended at 18 Ill. Reg. \_\_\_\_, effective \_\_\_\_\_

Section 728.141 Treatment Standards Expressed as Concentrations in Waste Extract

- a) Section 728.Table A identifies the restricted wastes and the concentrations of their associated constituents which that may not be exceeded by the extract of a waste or waste treatment residual developed using the test method in Section 728.Appendix AMethod 1311, the Toxicity Characteristic Leaching Procedure, for the allowable land disposal of such wastes. Compliance with these concentrations is required based upon grab samples, unless otherwise noted in Section 728.Table A. Method 1311 is found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", U.S. EPA Publication SW-846, as incorporated by reference in 35 Ill. Adm. Code 720.111.
- b) When wastes with differing treatment standards for a constituent of concern are combined for purposes of treatment, the treatment residue must meet the lowest treatment standard for the constituent of concern, except that mixtures of high and low zinc nonwastewater K061 are subject to the treatment standard for high zinc K061.

c) The treatment standards for the constituents in F001 through F005 whichthat are listed in Section 728.Table A only apply to wastes which contain one, two, or all three of these constituents. If the waste contains any of these three constituents along with any of the other 26 constituents found in F001 through F005, then only the treatments standards in Section 728.Table A are required.

(Source: Amended at 18 Ill. Reg. \_\_\_\_, effective \_\_\_\_\_)

Appendix A Toxicity Characteristic Leaching Procedure (TCLP)

The Board incorporates by reference 40 CFR 268, Appendix I (1988). This incorporation includes no future editions or amendments. Note: The TCLP (Method 1311) is published in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", U.S. EPA Publication SW-846, as incorporated by reference in 35 Ill. Adm. Code 720.111.

(Source: Amended at 18 Ill. Reg. \_\_\_\_, effective \_\_\_\_\_)

Section 728. Appendix I EP Toxicity Test Method and Structural Integrity Test

The Board incorporates by reference 40 GFR 268, Appendix IX, adopted at 56 Fed. Reg. 3876, January 31, 1991. This Section incorporates no future amendments or editions.

Note: The EP (Method 1310) is published in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", U.S. EPA Publication SW-846, as incorporated by reference in 35 Ill. Adm. Code 720.111.

(Source: Amended at 18 Ill. Reg. \_\_\_\_, effective \_\_\_\_\_)