

US EPA ARCHIVE DOCUMENT

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
HAZARDOUS WASTE DIVISION**

**AMENDMENTS TO
CHAPTER 4, 18 AND 24 OF THE
LOUISIANA HAZARDOUS WASTE REGULATIONS**

Effective April 20, 1984

4.10 Contents of Part II: General requirements.

Part II of the permit application consists of the general information requirements of this section, and the specific information requirements in §§4.10 - 4.25 applicable to the facility. The Part II information requirements presented in §§4.10 - 4.25 reflect the standards promulgated in Chapters 9-20. These information requirements are necessary in order for the Administrative Authority to determine compliance with Chapters 9-20.

4.11 Specific Part II information requirements for containers.

Except as otherwise provided in §12.1 owners or operators of facilities that store containers of hazardous waste must provide the following additional information:

- a) A description of the containment system to demonstrate compliance with §12.6. Show at least the followings:
 - 1) Basic design parameters, dimensions, and materials of construction.
 - 2) How the design promotes drainage or how containers are kept from contact with standing liquids in the containment system.
 - 3) Capacity of the containment system relative to the number and volume of containers to be stored.
 - 4) Provisions for preventing or managing run-on.
 - 5) How accumulated liquids can be analyzed and removed to prevent overflow.
- b) For storage areas that store containers holding wastes that do not contain free liquids, a demonstration of compliance with §12.6c) including:
 - 1) Test procedures and results or other documentation or information to show that the wastes do not contain free liquids, and
 - 2) A description of how the storage area is designed or operated to drain and remove liquids or how containers are kept from contact with standing liquids.
- c) Sketches, drawings, or data demonstrating compliance with §12.7 (location of buffer zone and containers holding ignitable or reactive wastes) and §12.8c) (location of incompatible wastes), where applicable.
- d) Where incompatible wastes are stored or otherwise managed in containers, a description of the procedures used to ensure compliance with §§12.8a) and b), and §§9.9b) and c)

4.12 Specific Part II information requirements for tanks.

Except as otherwise provided in §11.1, owners and operators of facilities that use tanks to store or treat hazardous waste must provide a description of design and operation procedures which demonstrate compliance with the requirements (§11.2a), §11.2b), §11.4 and §11.5 including:

- a) References to design standards or other available information used (or to be used) in design and construction of the tank.
- b) A description of design specifications including identification of construction materials and lining materials (include pertinent characteristics such as corrosion or erosion resistance).
- c) Tank dimensions, capacity, and shell thickness.
- d) A diagram of piping, instrumentation, and process flow.
- e) Description of feed systems, safety cutoff, bypass systems, and pressure controls (e.g., vents).
- f) Description of procedures for handling incompatible ignitable, or reactive wastes, including the use of buffer zones.

4.12 Specific Part II information requirements for surface impoundments.

Except as otherwise provided in §51.3d) and 9.1 and §3.3b) and c), owners and operators of facilities that store, treat or dispose of hazardous waste in surface impoundments must provide the following additional information:

- a) A list of the hazardous wastes placed or to be placed in each surface impoundment;
- b) Detailed plans and an engineering report describing how the surface impoundment is or will be designed, constructed, operated and maintained to meet the requirements of §16.2. This submission must address the following items as specified in §16.2:
 - 1) The liner system (except for an existing portion of a surface impoundment). If an exemption from the requirement for a liner is sought as provided by §16.2b), submit detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituents into the ground water or surface water at any future time;
 - 2) Prevention of overtopping; and
 - 3) Structural integrity of dikes;
- c) If any exemption from Chapter 18 is sought, as provided by §16.3, detailed plans and an engineering report explaining the location of the saturated zone in relation to the surface impoundment, and the design of a double-liner system that incorporates a leak detection system between the liners;
- d) A description of how each surface impoundment, including the liner and cover systems and appurtenances for control of overtopping, will be inspected in order to meet the requirements of §16.4b) and 16.4c).
- e) A certification by a qualified engineer which attests to the structural integrity of each dike, as required under §16.4d). For new units, the owner or operator must submit a statement by a qualified engineer that he will provide such a certification upon completion of construction in accordance

- f) A description of the procedure to be used for removing a surface impoundment from service, as required under §§16.5b) and 16.5c);
- g) A description of how hazardous waste residues and contaminated material will be removed from the unit at closure, as required under §16.6a). For any wastes not to be removed from the unit upon closure, the owner or operator must submit detailed plans and an engineering report describing how §§16.6b) and 16.6c) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan.
- h) If ignitable or reactive wastes are to be placed in a surface impoundment an explanation of how §16.7 will be complied with;
- i) If incompatible wastes, or incompatible wastes and materials will be placed in a surface impoundment, an explanation of how §16.8 will be complied with.

4.13 Specific Part II information requirements for waste piles.

Except as otherwise provided in §§13.3d), 9.1, and 3.3b) and e), owners and operators of facilities that store or treat hazardous waste in waste piles must provide the following additional information:

- a) A list of hazardous wastes placed or to be placed in each waste pile;
- b) If an exemption is sought to §13.2 and Chapter 18 as provided by §13.1c), an explanation of how the standards of §13.1c) will be complied with;
- c) Detailed plans and an engineering report describing how the pile is or will be designed, constructed, operated and maintained to meet the requirements of §13.2. This submission must address the following items as specified in §13.2.
 - 1) The liner system (except for an existing portion of a pile). If an exemption from the requirement for a liner is sought, as provided by §13.2b), the owner or operator must submit detailed plans and engineering and hydrogeologic reports, as applicable, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituents into the ground water or surface water at any future time;
 - 2) Control of run-on;
 - 3) Control of run-off;
 - 4) Management of collection and holding units associated with run-on and run-off control systems; and
 - 5) Control of wind dispersal of particulate matter, where applicable;
- d) If an exemption from Chapter 18 is sought as provided by §§13.2) or 13.4 submit detailed plans and an engineering report describing how the requirements of §§13.2b) or 13.4 will be complied with;
- e) A description of how each waste pile, including the liner and appurtenances for control of run-on and run-off will be inspected in order to meet the

requirements of 513.5a) and 13.5b). This information should be included in the inspection plan. If an exemption is sought to Chapter 18 pursuant to 513.4, describe in the inspection plan how the inspection requirements of 513.4b) will be complied with;

- f) If treatment is carried out on or in the pile, details of the process and equipment used, and the nature and quality of the residuals;
- g) If ignitable or reactive wastes are to be placed in a waste pile, an explanation of how the requirements of 513.6 will be complied with;
- h) If incompatible wastes, or incompatible wastes and materials will be placed in a waste pile, an explanation of how 513.7 will be complied with;
- i) A description of how hazardous waste residues and contaminated materials will be removed from the waste pile at closure, as required under 513.8a). For any waste not to be removed from the waste pile upon closure, the owner or operator must submit detailed plans and an engineering report describing how 514.11a) and 14.11b) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan.

4.14 Specific Part II information requirements for incinerators.

Except as Chapter 17 provides otherwise, owners and operators of facilities that incinerate hazardous waste must fulfill the requirements of a), b), or c) of this section.

- a) When seeking an exemption under 517.3b) or 17.3c) of this chapter (ignitable, corrosive, or reactive wastes only)
 - 1) Documentation that the waste is listed as a hazardous waste in Chapter 24 of this chapter, solely because it is ignitable (Hazard Code D) or corrosive (Hazard Code C) or both; or
 - 2) Documentation that the waste is listed as a hazardous waste in Chapter 24.1 of this chapter, solely because it is reactive (Hazard Code B) for characteristics other than those listed in 524.2c)4) and 24.2c)5) of this chapter, 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, corrosivity, or both, as determined by the tests for characteristics of hazardous waste under 524.2 of this chapter; or
 - 4) Documentation that the waste is a hazardous waste solely because it possesses the reactivity characteristics listed in 524.2c)1), 2), 3), 6), 7), or 8) of this chapter, 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 517.8; or.

c) In lieu of a trial burn, the applicant may submit the following information:

1) An analysis of each waste or mixture of wastes to be burned including:

Heat value of the waste in the form and composition in which it will be burned.

Viscosity (if applicable), or description of physical form of the waste.

An identification of any hazardous organic constituents listed in Table I, Chapter 17, which are present in the waste to be burned, except that the applicant need not analyze for constituents listed in Table I, Chapter 17 which 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" (SW-846).

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" (SW-846).

A quantification of those hazardous constituents in the waste which may be designated as POHC's based on data submitted from other trial or operational burns which demonstrate compliance with the performance standards in §17.6.

2) A detailed engineering description of the incinerator, including:

Manufacturer's name and model number of incinerator.

Type of incinerator.

Linear dimension of incinerator unit including cross sectional area of combustion chamber.

Description of auxiliary fuel system (type/feed).

Capacity of prime mover.

Description of automatic waste feed cutoff system(s).

Stack gas monitoring and pollution control monitoring system.

Nozzle and burner design.

Construction materials.

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 paragraph c)1) of this section. This analysis should specify the POHC's which the applicant has identified in the waste for which a permit is sought, and any differences from the POHC's 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:
 - Sampling and analysis techniques used to calculate performance standards in §17.6,
 - 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).
- 6) The expected incinerator operation information to demonstrate compliance with §17.6 and 17.9 of this chapter including:
 - Expected carbon monoxide (CO) level in the stack exhaust gas.
 - Waste feed rate.
 - Combustion zone temperature.
 - Indication of combustion gas velocity.
 - Expected stack gas volume, flow rate, and temperature.
 - Computed residence time for waste in the combustion zone.
 - Expected hydrochloric acid removal efficiency.
 - Expected fugitive emissions and their control procedures.
 - Proposed waste feed cut-off limits based on the identified significant operating parameters.
- 7) Such supplemental information as the Administrative Authority finds necessary to achieve the purposes of this paragraph.
- 8) Waste analysis data, including that submitted in paragraph c)1) of this section, sufficient to allow the Administrative Authority to specify as permit Principal Organic Hazardous Constituents (permit POHC's) those constituents for which destruction and removal efficiencies will be required.

d) The Administrative Authority shall approve a permit application without a trial burn if he 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 §17.9 of this chapter) operating conditions that will ensure that the performance standards in §17.6 of this chapter will be met by the incinerator.

4.15 Specific Part II information requirements for land treatment facilities.

Except as otherwise provided in §§1.3d), 9.1, and 3.3b) and c), owners and operators of facilities that use land treatment to dispose of hazardous waste must provide the following additional information:

a) A description of plans to conduct a treatment demonstration as required under §15.4. The description must include the following information:

- 1) The wastes for which the demonstration will be made and the potential hazardous constituents in the wastes;
- 2) The data sources to be used to make the demonstration (e.g., literature, laboratory data, field data, or operating data);
- 3) Any specific laboratory or field test that will be conducted, including:

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

Materials and methods, including analytical procedures;

Expected time for completion;

Characteristics of the unit that will be simulated in the demonstration, including treatment zone characteristics, climatic conditions, and operating practices.

b) A description of a land treatment program, as required under §15.3. This information must be submitted with the plans for the treatment demonstration, and updated following the treatment demonstration. The land treatment program must address the following items:

- 1) The wastes to be land treated;
- 2) Design measures and operating practices necessary to maximize treatment in accordance with §15.2a) including:

Waste application method and rate;

Measures to control soil pH;

Enhancement of microbial or chemical reactions;

- 3) Provisions for unsaturated zone monitoring, including:
 - Sampling equipment, procedures, and frequency;
 - Procedures for selecting sampling locations;
 - Analytical procedures;
 - Chain of custody controls;
 - Procedures for establishing background values;
 - Statistical methods for interpreting results;
 - The justification for any hazardous constituents recommended for selection as principal hazardous constituents, in accordance with the criteria for such selection in §15.6a)
- 4) A list of hazardous constituents reasonably expected to be in, or derived from, the wastes to be land treated based on waste analysis performed pursuant to §9.10;
- 5) The proposed dimensions of the treatment zone;
- c) A description of how the unit is or will be designed, constructed, operated, and maintained in order to meet the requirements of §15.2. This submission must address the following items:
 - 1) Control of run-on;
 - 2) Collection and control of run-off;
 - 3) Minimization of run-off of hazardous constituents from the treatment zone;
 - 4) Management of collection and holding facilities associated with run-on and run-off control systems;
 - 5) Periodic inspection of the unit. This information should be included in the inspection plan.
 - 6) Control of wind dispersal of particulate matter, if applicable;
- d) No food-chain crops are to be grown in or on the treatment zone of the land treatment unit.
- e) A description of the vegetative cover to be applied to closed portions of the facility, and a plan for maintaining such cover during the post-closure care period, as required under §§15.10a)8) and 15.10c)2). This information should be included in the closure plan and, where applicable, the post-closure plan.
- g) If ignitable or reactive wastes will be placed in or on the treatment zone, an explanation of how the requirements of §15.8 will be complied with;

- h) If incompatible wastes, or incompatible wastes and materials, will be placed in or on the same treatment zone, an explanation of how §13.9 will be complied with.

4.16 Specific Part II information requirements for landfills.

Except as otherwise provided in §§1.3d), 9.1, and 3.3b) and 3.3c), owners and operators of facilities that dispose of hazardous waste in landfills must provide the following additional information:

- a) A list of the hazardous wastes placed or to be placed in each landfill or landfill cell;
- b) Detailed plans and an engineering report describing how the landfill is or will be designed, constructed, operated and maintained to comply with the requirements of §14.2. This submission must address the following items as specified in §14.2:
- 1) The liner system and leachate collection and removal system;
 - 2) Control of run-on;
 - 3) Control of run-off;
 - 4) Management of collection and holding facilities associated with run-on and run-off control systems; and
 - 5) Control of wind dispersal of particulate matter, where applicable;
- c) There are no exemptions from the ground water protection requirements of Chapter 18.
- d) A description of how each landfill, including the liner and cover systems, will be inspected in order to meet the requirements of §14.4. This information should be included in the inspection plan.
- e) Detailed plans and an engineering report describing the final cover which will be applied to each landfill or landfill cell at closure in accordance with §14.11a), and a description of how each landfill will be maintained and monitored after closure in accordance with §14.11b). This information should be included in the closure and post-closure plans.
- f) If ignitable or reactive wastes will be landfilled, an explanation of how the standards of §14.6 will be complied with;
- g) If incompatible wastes, or incompatible wastes and materials will be landfilled, an explanation of how §14.7 will be complied with;
- h) Bulk or non-containerized liquid waste or wastes containing free liquids to be landfilled must comply with §14.8;
- i) If containers of hazardous waste are to be landfilled, an explanation of how the requirements of §14.9 or §14.10, as applicable, will be complied with.

PROPOSED AMENDMENTS TO CHAPTERS 18, 4 and 24.3
OF THE PENDING HAZARDOUS WASTE REGULATIONS

18.1b) Change 13.2h) to 13.2g)

18.1c)1) Change 13.1d) to 13.2

18.2c) Add the following:

In addition all permitted facilities where pre-existing groundwater contamination continues to be present shall be required to institute compliance monitoring as required in 18.10 of this chapter and corrective action programs as required in 18.11 of this chapter. In no case shall free phase or mobile hazardous constituents be un-mitigated. Hazardous constituents shall be isolated, reduced or stabilized consistent with the application of good engineering practices and best practical technology.

3.6d) and
18.2d) Add the following:

All permits for facilities with pre-existing groundwater contamination shall contain a permit condition containing the concentration limits of hazardous constituents established consistent with 18.3, 18.4 and 18.5. In no case shall other than background concentration limits be listed in the initial permit. Compliance with corrective action programs required in 18.2, 18.10 and 18.11 of the chapter will constitute a permitted variance. Corrective action programs shall be reviewed annually and may be based on predictive computer modeling. Alternate concentrations provided in 18.5a) or b) may be set by permit amendment should the original concentration limits be unattainable within a 36 month time-frame.

18.5a) Substitute the following:

The Administrative Authority will specify in the facility permit concentration limits in the groundwater for hazardous constituents established under 18.4.

All permits for facilities with pre-existing groundwater contamination shall set concentration limits at background levels and provide corrective action programs as specified in 18.2c) and d).

Permits for facilities without pre-existing groundwater contamination shall set concentration limits at background levels.

In other cases in which groundwater contamination is detected after granting of the initial permit, the concentration limits of hazardous constituents shall be established consistent with 18.2c) and d), and:

- 1) Must not exceed the background level of that constituent in the groundwater at the time that limit is specified in the permit; or
- 2) For any of the constituents listed in Table 1 below, must not exceed the respective value given in that Table if the background level of the constituent is below the value given; or
- 3) After compliance monitoring and corrective action measures specified in 18.10 and 18.11 have demonstrated the original concentration limits are unattainable after a 36 month time-frame, the Administrative Authority may set by permit amendment, alternative concentration limits which must not exceed those provided in 18.5b).

TABLE 1. MAXIMUM CONCENTRATION OF
CONSTITUENTS FOR GROUNDWATER PROTECTION.

Constituent	Maximum concentration ¹
Arsenic	0.05
Barium	1.0
Cadmium	0.01
Chromium	0.05
Lead	0.05
Mercury	0.002
Selenium	0.01
Silver	0.05
Endrin (1,2,3,4,10,10-hexachloro-1,7-epoxy 1,4,4a,5,6,7,8,9a-octahydro-1,4-endo, endo-5,8-dimethano naphthalene)	0.0002
Lindane (1,2,3,4,5,6-hexachlorocyclohexane, gamma isomer)	0.004
Methoxychlor (1,1,1-Trichloro-2,2-bis) (p-methoxyphenylethane)	0.1
Toxaphene (C ₁₀ H ₁₀ Cl ₈ , Technical chlorinated camphene, 67-69 percent chlorine)	0.005
2,4-D (2,4-Dichlorophenoxyacetic acid)	0.1
2,4,5-TP Silvex (2,4,5-Trichlorophenoxypropionic acid)	0.01

¹Milligrams per liter.

18.5b) Substitute the following:

The Administrative Authority may establish an alternate concentration limit for a hazardous constituent if he finds that the constituent will not pose a substantial present or potential hazard to human health or the environment as long as the alternate concentration limit is not exceeded.

In no case shall alternate concentration limits of hazardous constituents be established which will result in the potential for concentrations of hazardous constituents in potable water aquifers that exceed recognized U. S. Environmental Protection Agency Drinking Water Quality Standards or background levels whichever are higher, at the property boundary of the permitted site. In setting such alternative concentration limits, the Administrative Authority will consider the best available evidence accepted by the scientific community, including nationally accepted guidelines which have been established by risk assessment methodology.

18.9h)5) Within 180 days, submit to the Administrative Authority:

An engineering feasibility plan for a corrective action program necessary to meet the requirements of 18.5.

18.3e) Also repeat this language as 9.17e)

18.4b) Change "will" to "may" in the first line and add after Administrative Authority in the first line "upon sufficient demonstration by the permittee,"

4.9T)4)e) Delete from line 8:

"except as provided in 18.9h)5)

4.9T)4)f) Delete the following:

However, an owner or operator is not required to submit information to establish a corrective action program if he demonstrates to the Administrative Authority that alternate concentration limits will protect human health and the environment after considering the criteria listed in 18.5. An owner or operator who is not required to establish a corrective action program for this reason must instead submit sufficient information to establish a compliance monitoring program which meets the requirements of 18.10 and 4.11g)3).

24.3a) In the last line of a) and b), eliminate the semicolon and "or" and add the following:

"and provided that the generator uses due care as a prudent operator to minimize the amount of these substances entering the wastewater treatment system; or"

24.3c) Substitute the following:

One of the following wastes listed in § 24.1b) - Heat exchanger bundle cleaning sludge from the petroleum refining industry (EPA Hazardous Waste No. K-050), provided such waste does not exceed one percent of the weekly influent into the headworks of the facility's wastewater treatment or pretreatment system; or

24.3d) Substitute the following:

A discarded commercial chemical product, or chemical intermediate listed in § 24.1d) and 24.1e) arising from de minimis losses of these materials from manufacturing operations in which these materials are used as raw materials or are produced in the manufacturing process. For purposes of this subparagraph, "de minimis" losses include those from normal material handling operations (e.g. residue after clean-up of all free liquids from spills from the unloading or transfer of materials from bins or other containers, minor leaks from well-maintained pipes, valves or other devices used to transfer materials); minor leaks of process equipment, storage tanks or containers prior to detection and repair; minor leaks from well-maintained pump packings and seals; sample purgings; relief device discharges during necessary testing and relief operation; discharges from safety showers and rinsing and cleaning of personal safety equipment; and rinsate from empty containers rinsed by water; or