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 File Date: \_\_\_\_\_

# Notice of Rulemaking Hearing

Hearings will be conducted in the manner prescribed by the Uniform Administrative Procedures Act, T.C.A. § 4-5-204. For questions and copies of the notice, contact the person listed below.

<b>Agency/Board/Commission:</b>	Underground Storage Tanks and Solid Waste Disposal Control Board
<b>Division:</b>	Solid Waste Management
<b>Contact Person:</b>	Beverly Philpot
<b>Address:</b>	William R. Snodgrass TN Tower 312 Rosa L. Parks Avenue, 14th Floor Nashville, Tennessee 37243
<b>Phone:</b>	(615) 795-1188
<b>Email:</b>	<a href="mailto:Beverly.Philpot@tn.gov">Beverly.Philpot@tn.gov</a>

Any Individuals with disabilities who wish to participate in these proceedings (to review these filings) and may require aid to facilitate such participation should contact the following at least 10 days prior to the hearing:

<b>ADA Contact:</b>	ADA Coordinator
<b>Address:</b>	William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue, 22nd Floor Nashville, Tennessee 37243
<b>Phone:</b>	1-866-253-5827 (toll free) or 615-532-0200 Hearing impaired callers may use the TN Relay Service 1-800-848-0298
<b>Email:</b>	<a href="mailto:kathryn.reitz@tn.gov">kathryn.reitz@tn.gov</a>

**Hearing Location(s)** (for additional locations, copy and paste table)

Address 1:	Conference Room A, 3 <sup>rd</sup> Floor		
Address 2:	William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue		
City:	Nashville, Tennessee		
Zip:	37243		
Hearing Date:	02/09/2023		
Hearing Time:	10:00 A.M.	<input checked="" type="checkbox"/> CST/CDT	<input type="checkbox"/> EST/EDT

**Alternate Hearing Option**

<b>Method 1:</b>	<p><b>You may also join electronically.</b></p> <p><b>Join by going to this link:</b>  <a href="https://tn.webex.com/tn/j.php?MTID=me9cdba26f1e0f0324e563d96c23bc132">https://tn.webex.com/tn/j.php?MTID=me9cdba26f1e0f0324e563d96c23bc132</a>  <b>Meeting number (access code):</b> 2315 916 4974  <b>Meeting password:</b> HazwasteRules (42992784 from phones)</p> <p><b>Join by video system</b>  <b>Dial</b> <a href="tel:+14156550001">+1-415-655-0001</a>, <a href="tel:+123159164974">23159164974</a> #42992784# US Toll</p>
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<b>Method 2:</b>	<b>Join by phone</b> 1-415-655-0001  <b>Access code:</b> 2315 916 4974
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**Additional Hearing Information:**

*If it is hard for you to read, speak, or understand English, TDEC may be able to provide translation or interpretation services free of charge. Please contact Janelle Starke at (615-906-2950) for more information.*

The Department has received program authorization from the EPA to implement the hazardous waste program in Tennessee in lieu of EPA. To maintain program authorization, when the federal regulations are amended to become more stringent than the state rules, the Department is required to timely amend its rules. On October 1, 2021, EPA issued a final rule that authorized states are required to adopt. The federal amendment changes regulations related to twelve hazardous waste recovery disposal operations used in hazardous waste export and import notices submitted to EPA by U.S. exporters and importers, and in documents that must accompany shipments. These conforming changes are needed to reflect changes to regulations related to Canadian import-export recovery and disposal operations that Canada promulgated effective October 31, 2021. Because of the federal government's role in matters of foreign policy, EPA does not authorize states to administer federal import/export functions. However, state programs are still required to adopt the provisions in the federal amendments to maintain equivalency with the federal program.

In addition, to support continuing program authorization, EPA has completed an extensive review of several prior state rulemakings that amended Chapter 0400-12-01 and determined that the Department must amend specific rule language to satisfy all requirements for final program authorization. These amendments include recognizing when EPA retains implementation authority, correcting typographical errors, addressing incorrect cross references, properly citing state and federal analogs, deleting obsolete language, removing confusing clarifying notes, and removing a state requirement determined by EPA to be less stringent than the federal regulations.

An initial set of draft rules has been prepared for public review and comment and may also be accessed for review using at <https://www.tn.gov/environment/ppo-public-participation/ppo-public-participation/ppo-waste>.

Oral or written comments are invited at the hearing. In addition, written comments may be submitted prior to or after the public hearing to: Tennessee Department of Environment and Conservation, Division of Solid Waste Management; Attention: Beverly Philpot, William R. Snodgrass TN Tower, 312 Rosa L. Parks Avenue, 14<sup>th</sup> Floor, Nashville, Tennessee 37243; telephone (615) 795-1188, email: [Beverly.Philpot@tn.gov](mailto:Beverly.Philpot@tn.gov). However, such written comments must be received by 4:30 PM CST, February 16, 2023, in order to assure consideration. For further information, please contact Beverly Philpot at the above address or telephone number, or by e-mail.

**Revision Type (check all that apply):**

- Amendment
- New
- Repeal

**Rule(s)** (ALL chapters and rules contained in filing must be listed. If needed, copy and paste additional tables to accommodate more than one chapter. Please enter only **ONE** Rule Number/Rule Title per row.)

Chapter Number	Chapter Title
0400-12-01	Hazardous Waste Management
Rule Number	Rule Title
0400-12-01-.01	Hazardous Waste Management System: General
0400-12-01-.02	Identification and Listing of Hazardous Waste
0400-12-01-.03	Notification Requirements and Standards Applicable to Generators of Hazardous Waste
0400-12-01-.05	Interim Status Standards for Owners and Operators of Existing Hazardous Waste Treatment, Storage, and Disposal Facilities
0400-12-01-.06	Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities

0400-12-01-.07	Permitting of Hazardous Waste Treatment, Storage, and Disposal Facilities
0400-12-01-.09	Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities
0400-12-01-.10	Land Disposal Restrictions

Place substance of rules and other info here. Statutory authority must be given for each rule change. For information on formatting rules go to <https://sos.tn.gov/products/division-publications/rulemaking-guidelines>.

Chapter 0400-12-01  
Hazardous Waste Management

Amendments

The definition of “facility” in subparagraph (a) of paragraph (2) of Rule 0400-12-01-.01 Hazardous Waste Management System: General is amended by deleting it in its entirety and substituting instead the following while remaining in alphabetical order.

“Facility” means:

1. All contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste, or for managing hazardous secondary materials prior to reclamation. A facility may consist of several treatment, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combinations of them).
2. For the purpose of implementing corrective action under subparagraph (6)(l) of Rule 0400-12-01-.06(6)(l), all contiguous property under the control of the owner or operator seeking a permit under the Tennessee Hazardous Waste Management Act, T.C.A. §§ 68-212-101 ~~et seq to -121~~. This definition also applies to facilities implementing corrective action under T.C.A. § 68-212-111 and RCRA Section 3008(h).
3. Notwithstanding part 2 of this definition, a remediation waste management site is not a facility ~~that is~~ subject to subparagraph (6)(l) of Rule 0400-12-01-.06(6)(l), but is subject to corrective action requirements if the site is located within such a facility.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Part 2 of subparagraph (d) of paragraph (5) of Rule 0400-12-01-.01 Hazardous Waste Management System: General is amended by deleting it in its entirety and substituting instead the following:

2. The following factor must be considered in making a determination as to the overall legitimacy of a specific recycling activity.
  - (i) The product of the recycling process does not:
    - (I) Contain significant concentrations of any hazardous constituents found in appendix VIII of paragraph (30) of Rule 0400-12-01-.02 that are not found in analogous products; or
    - (II) Contain concentrations of hazardous constituents found in appendix VIII of paragraph (30) of Rule 0400-12-01-.02 at levels that are significantly elevated from those found in analogous products; or
    - (III) Exhibit a hazardous characteristic (as defined in paragraph (3) of Rule 0400-12-01-.02) that analogous products do not exhibit.
  - (ii) In making a determination that a hazardous secondary material is legitimately recycled, persons must evaluate all factors and consider legitimacy as a whole. If, after careful evaluation of these considerations, the factor in subpart (i) of this part is not met, then this fact may be an indication that the material is not legitimately recycled. However, the factor in subpart (i) of this part does not have to be met for

~~(Note: To comply with the requirements of this subpart, a generator of the hazardous secondary material, product or intermediate may use its knowledge of the materials it recycles and of the recycling process to make legitimacy determinations.)~~

the recycling to be considered legitimate. In evaluating the extent to which the factor in subpart (i) of the part is met and in determining whether a process that does not meet the factor in subpart (i) of this part is still legitimate, persons can consider exposure from toxics in the product, the bioavailability of the toxics in the product, and other relevant considerations.

~~(Note: A person who meets the specific provisions included in 0400-12-01-.02(1)(b)3 Table 1, 0400-12-01-.02(1)(b)5, 0400-12-01-.02(1)(d)1(vi) through (xxii), 0400-12-01-.02(1)(f)1(ii)(III) and (IV), and 0400-12-01-.02(1)(f)1(iii)(I), are presumed to conduct legitimate recycling.)~~

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Item (II) of subpart (i) of part 1 of subparagraph (a) of paragraph (7) of Rule 0400-12-01-.01 Hazardous Waste Management System: General is amended by deleting it in its entirety and substituting instead the following:

- (II) ~~The Department~~ EPA will make any electronic manifest that is prepared and used in accordance with subpart (3)(a)1(iii) of Rule 0400-12-01-.03, or any paper manifest that is submitted to the system under item (5)(b)1(ii)(V) of Rule 0400-12-01-.05 or item (5)(b)1(ii)(V) of Rule 0400-12-01-.06 available to the public under this paragraph when the electronic or paper manifest is a complete and final document. Electronic manifests and paper manifests submitted to the system are considered by ~~the Department~~ EPA to be complete and final documents and publicly available information after 90 days have passed since the delivery to the designated facility of the hazardous waste shipment identified in the manifest.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Section E of subitem II of item (VI) of subpart (xxvii) of part 1 of subparagraph (d) of paragraph (1) of Rule 0400-12-01-.02 Identification and Listing of Hazardous Waste is amended by deleting it in its entirety and substituting instead the following:

- E. A certification from the remanufacturer stating “on behalf of [insert remanufacturer facility name], I certify that this facility is a remanufacturer under pharmaceutical manufacturing (NAICS 325412), basic organic chemical manufacturing (NAICS 325199), plastics and resins manufacturing (NAICS 325211), and/or the paints and coatings manufacturing sectors (NAICS 325510), and will accept the spent solvent(s) for the sole purpose of remanufacturing into commercial-grade solvent(s) that will be used for reacting, extracting, purifying, or blending chemicals (or for rinsing out the process lines associated with these functions) or for use as product ingredient(s). I also certify that the remanufacturing equipment, vents, and tanks are equipped with and are operating air emission controls in compliance with the appropriate Clean Air Act regulations under 40 C.F.R. part 60, part 61, or part 63, or an equivalent rule under the Tennessee Air Quality Act ~~regulations under Rule Division 1200-03~~, or, absent such Air Quality Act standards for the particular operation or piece of equipment covered by the remanufacturing exclusion, are in compliance with the appropriate standards in paragraphs (27) (vents), (28) (equipment) and (29) (tank storage) of Rule 0400-12-01-.02.”;

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Subitem V of item (VI) of subpart (xxvii) of part 1 of subparagraph (d) of paragraph (1) of Rule 0400-12-01-.02 Identification and Listing of Hazardous Waste is amended by deleting it in its entirety and substituting instead the following:

- V. During remanufacturing, and during storage of the hazardous secondary materials prior to remanufacturing, the remanufacturer certifies that the remanufacturing equipment, vents, and tanks are equipped with and are operating air emission controls in compliance with the appropriate [Clean Air Act regulations under 40 C.F.R. part 60, part 61, or part 63, or an equivalent rule under the Tennessee Air Quality Act—regulations under Rule Division 1200-03](#); or, absent such Air Quality Act standards for the particular operation or piece of equipment covered by the remanufacturing exclusion, are in compliance with the appropriate standards in paragraphs (27) (vents), (28) (equipment) and (29) (tank storage) [of this rule](#); and

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

The listing description for the Industry and Hazardous Waste Code “F019” in part 1 of subparagraph (b) of paragraph (4) of Rule 0400-12-01-.02 Identification and Listing of Hazardous Waste is amended by deleting the phrase “Rule 1200-01-11-.06(14)(b) or Rule 1200-01-11-.05(14)(b)” and substituting instead the following phrase “Rule 0400-12-01-.06(14)(b) or Rule 0400-12-01-.05(14)(b)” as that, as amended, the listing description shall read as follows:

Industry and Hazardous Waste Code	Hazardous Waste	Hazard Code
Generic:  F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process. Wastewater treatment sludges from the manufacturing of motor vehicles using a zinc phosphating process will not be subject to this listing at the point of generation if the wastes are not placed outside on the land prior to shipment to a landfill for disposal and are either: disposed in a Subtitle D municipal or industrial landfill unit that is equipped with a single clay liner and is permitted, licensed or otherwise authorized by the state; or disposed in a landfill unit subject to, or otherwise meeting, the landfill requirements in 40 <del>CFR</del> <a href="#">C.F.R. § 258.40</a> or the state equivalent, <del>Rule 1200-01-11-.06(14)(b) or Rule 1200-01-11-.05(14)(b)</del> <a href="#">Rule 0400-12-01-.06(14)(b) or Rule 0400-12-01-.05(14)(b)</a> . For the purposes of this listing, motor vehicle manufacturing is defined in item 2(iv)(I) of this subparagraph and item 2(iv)(II) of this subparagraph describes the recordkeeping requirements for motor vehicle manufacturing facilities.	(T)

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

The note immediately following subpart (ii) of part 1 of subparagraph (d) of paragraph (10) of Rule 0400-12-01-.02 Identification and Listing of Hazardous Waste is amended by deleting it in its entirety and substituting instead the following:

(Note: If the collected material is a hazardous waste under this rule, it is subject to management as a hazardous waste in accordance with all applicable requirements of Rule 0400-12-01-.03 through Rule 0400-12-01-.10. If the collected material is discharged through a point source to waters of the United States, it is subject to the requirements of [Tennessee Water Quality Control Act, as amended sections 301, 304, 402 of the Clean Water Act, or equivalent authority under the Tennessee Water Quality Control Act](#). If discharged to a Publicly Owned Treatment Works (POTW), it is subject to the requirements of [section 307 of the Clean Water Act, or equivalent authority under](#) the Tennessee Water

Quality Control Act, as amended. If the collected material is released to the environment, it may be subject to the reporting requirements of 40 ~~C.F.R.~~ C.F.R. part 302.)

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

The two notes immediately following part 6 of subparagraph (g) of paragraph (10) of Rule 0400-12-01-.02 Identification and Listing of Hazardous Waste are amended by deleting them in their entirety and substituting instead the following:

(Note: The Regional Administrator or Commissioner may, on the basis of any information received that there is or has been a release of hazardous secondary material or hazardous constituents into the environment, issue an order under RCRA section 7003(a) or the Act (T.C.A. §§ 68-212-101 ~~et seq. to -121~~), respectively, requiring corrective action or such other response as deemed necessary to protect human health or the environment.)

(Note: ~~The Tennessee Water Quality Control Act 40 C.F.R. part 302~~ may require the owner or operator to notify the National Response Center of certain releases.)

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Part 5 of subparagraph (b) of paragraph (13) of Rule 0400-12-01-.02 Identification and Listing of Hazardous Waste is amended by deleting it in its entirety and substituting instead the following:

5. Required aisle space

The hazardous secondary material generator or intermediate or reclamation facility managing hazardous secondary material excluded from regulation under subpart (1)(d)1(xxiv) of this rule must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Part 6 of subparagraph (b) of paragraph (13) of Rule 0400-12-01-.02 Identification and Listing of Hazardous Waste is amended by deleting it in its entirety and substituting instead the following:

6. Arrangements with local authorities

(i) The hazardous secondary material generator or an intermediate or reclamation facility managing hazardous secondary material excluded from regulation under subpart (1)(d)1(xxiv) of this rule must attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations:

- (I) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous secondary material handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes;
- (II) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;
- (III) Agreements with state emergency response teams, emergency response contractors, and equipment suppliers; and
- (IV) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses ~~which that~~ could result from fires, explosions, or releases at the

facility.

- (ii) Where state or local authorities decline to enter into such arrangements, the hazardous secondary material generator or an intermediate or reclamation facility managing hazardous secondary material excluded from regulation under subpart (1)(d)1(xxiv) of this rule must document the refusal in the operating record.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Subparagraph (c) of paragraph (13) of Rule 0400-12-01-.02 Identification and Listing of Hazardous Waste is amended by deleting it in its entirety and substituting instead the following:

- (c) Emergency procedures for facilities generating or accumulating 6000 kg or less of hazardous secondary material. ~~[40 CFR 261.411]~~

A generator or an intermediate or reclamation facility managing hazardous secondary material excluded from regulation under subpart (1)(d)1(xxiv) of this rule that generates or accumulates 6000 kg or less of hazardous secondary material must comply with the following requirements:

1. At all times there must be at least one employee either on the premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures specified in part 4 of this subparagraph. This employee is the emergency coordinator.
2. The generator or intermediate or reclamation facility managing hazardous secondary material excluded from regulation under subpart (1)(d)1(xxiv) of this rule must post the following information next to the telephone to be used during a potential emergency:
  - (i) The name and telephone number of the emergency coordinator;
  - (ii) Location of fire extinguishers and spill control material, and, if present, fire alarm; and
  - (iii) The telephone number of the fire department, unless the facility has a direct alarm.
3. The generator or an intermediate or reclamation facility managing hazardous secondary material excluded from regulation under subpart (1)(d)1(xxiv) of this rule must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facility operations and emergencies.
4. The emergency coordinator or ~~his~~ designee must respond to any emergencies that arise. The applicable responses are as follows:
  - (i) In the event of a fire, call the fire department or attempt to extinguish it using a fire extinguisher;
  - (ii) In the event of a spill, contain the flow of hazardous waste to the extent possible, and as soon as is practicable, clean up the hazardous waste and any contaminated materials or soil;
  - (iii) In the event of a fire, explosion, or other release ~~which that~~ could threaten human health outside the facility or when the generator or an intermediate or reclamation facility managing hazardous secondary material excluded from regulation under subpart (1)(d)1(xxiv) of this rule has knowledge that a spill has reached surface water, the generator or an intermediate or reclamation facility managing hazardous secondary material excluded from regulation under subpart (1)(d)1(xxiv) of this rule must immediately notify the National Response Center (using ~~their~~ its 24-hour toll free number ~~800/~~ 800-424-8802). The report must include the following information:



- (I) The name, address, and U.S. EPA Identification Number of the facility;
- (II) Date, time, and type of incident (e.g., spill or fire);
- (III) Quantity and type of hazardous waste involved in the incident;
- (IV) Extent of injuries, if any; and
- (V) Estimated quantity and disposition of recovered materials, if any.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Subparagraph (d) of paragraph (13) of Rule 0400-12-01-.02 Identification and Listing of Hazardous Waste is amended by deleting it in its entirety and substituting instead the following:

- (d) Contingency planning and emergency procedures for facilities generating or accumulating more than 6000 kg of hazardous secondary material. ~~[40 CFR 261.420]~~

A generator or an intermediate or reclamation facility managing hazardous secondary material excluded from regulation under subpart (1)(d)1(xxiv) of this rule that generates or accumulates more than 6000 kg of hazardous secondary material must comply with the following requirements:

1. Purpose and implementation of contingency plan
  - (i) Each generator or an intermediate or reclamation facility managing hazardous secondary material excluded from regulation under subpart (1)(d)1(xxiv) of this rule that accumulates more than 6000 kg of hazardous secondary material must have a contingency plan for his facility. The contingency plan must be designed to minimize hazards to human health ~~or~~ and the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous secondary material ~~or~~ hazardous secondary material constituents to air, soil, or surface water.
  - (ii) The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous secondary material or hazardous secondary material constituents ~~which~~ that could threaten human health or the environment.
2. Content of contingency plan
  - (i) The contingency plan must describe the actions facility personnel must take to comply with parts 1 and 6 of this subparagraph in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous secondary material or hazardous secondary material constituents to air, soil, or surface water at the facility.
  - (ii) If the generator or an intermediate or reclamation facility managing hazardous secondary material excluded from regulation under subpart (1)(d)1(xxiv) of this rule accumulating more than 6000 kg of hazardous secondary material has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR C.F.R. part 112, or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this rule. The hazardous secondary material generator or an intermediate or reclamation facility managing hazardous secondary material excluded from regulation under subpart (1)(d)1(xxiv) of this rule may develop one contingency plan which meets all regulatory requirements. The Department recommends that the plan be based on the National Response Team's Integrated Contingency Plan Guidance ("One Plan"). When modifications are made to non-Rule Chapter 0400-12-01 provisions in an integrated contingency plan, the changes do not trigger the need for a permit modification under Rule 0400-12-01-.07.

- (iii) The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and state and local emergency response teams to coordinate emergency services, pursuant to part (b)6 of this paragraph.
- (iv) The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see part 5 of this subparagraph), and this list must be kept ~~up-to-date~~ up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates.
- (v) The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.
- (vi) The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).

3. Copies of contingency plan

A copy of the contingency plan and all revisions to the plan must be:

- (i) Maintained at the facility; and
- (ii) Submitted to all local police departments, fire departments, hospitals, and state and local emergency response teams that may be called upon to provide emergency services.

4. Amendment of contingency plan

The contingency plan must be reviewed, and immediately amended, if necessary, whenever:

- (i) Applicable rules are revised;
- (ii) The plan fails in an emergency;
- (iii) The facility changes--in its design, construction, operation, maintenance, or other circumstances--in a way that materially increases the potential for fires, explosions, or releases of hazardous secondary material or hazardous secondary material constituents, or changes the response necessary in an emergency;
- (iv) The list of emergency coordinators changes; or
- (v) The list of emergency equipment changes.

5. Emergency coordinator

At all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out

the contingency plan. The emergency coordinator's responsibilities are more fully ~~spelled out~~ detailed in part 6 of this subparagraph. Applicable responsibilities for the emergency coordinator vary, depending on factors such as type and variety of hazardous secondary material(s) handled by the facility, and type and complexity of the facility.

6. Emergency procedures

- (i) Whenever there is an imminent or actual emergency ~~situation~~, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately:
  - (I) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and
  - (II) Notify appropriate state or local agencies with designated response roles if their help is needed.
- (ii) Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials. ~~He~~ The emergency coordinator may do this by observation or review of facility records or manifests and, if necessary, by chemical analysis.
- (iii) Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water ~~run-offs from~~ runoff of water or chemical agents used to control fire and heat-induced explosions).
- (iv) If the emergency coordinator determines that the facility has had a release, fire, or explosion ~~which that~~ could threaten human health, or the environment, outside the facility, ~~he~~ the emergency coordinator must report ~~his~~ these findings as follows:
  - (I) If ~~his~~ the assessment indicates that evacuation of local areas may be advisable, ~~he~~ the emergency coordinator must immediately notify appropriate local authorities. ~~He must and~~ be available to help appropriate officials decide whether local areas should be evacuated; and
  - (II) ~~He~~ The emergency coordinator must immediately notify either the government official designated as the on-scene coordinator for that geographical area, or the National Response Center (using ~~their~~ its 24-hour toll free number ~~800/~~ 800-424-8802). The report must include:
    - I. Name and telephone number of reporter;
    - II. Name and address of facility;
    - III. Time and type of incident (e.g., release, explosion, or fire);
    - IV. Name and quantity of material(s) involved, to the extent known;
    - V. The extent of injuries, if any; and
    - VI. The possible hazards to human health, or the environment, outside the facility.
- (v) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous secondary material at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released material, and removing or isolating containers.

- (vi) If the facility stops operations in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever ~~this is~~ appropriate.
- (vii) Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered secondary material, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility. Unless the hazardous secondary material generator can demonstrate, in accordance with part (1)(c)3 or part (1)(c)4 of this rule, that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of Rules 0400-12-01-.03, 0400-12-01-.04 and 0400-12-01-.05.
- (viii) The emergency coordinator must ensure that, in the affected area(s) of the facility:
  - (I) No secondary material that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and
  - ~~(ii)(II)~~ All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.
- (ix) The hazardous secondary material generator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, ~~he~~ the hazardous secondary material generator must submit a written report on the incident to the Commissioner. The report must include:
  - (I) Name, address, and telephone number of the hazardous secondary material generator;
  - (II) Name, address, and telephone number of the facility;
  - (III) Date, time, and type of incident (e.g., fire, explosion, or release);
  - (IV) Name and quantity of material(s) involved;
  - (V) The extent of injuries, if any;
  - (VI) An assessment of actual or potential hazards to human health or the environment, where ~~this is~~ applicable; and
  - (VII) Estimated quantity and disposition of recovered material that resulted from the incident.

7. Personnel training-

All employees must be thoroughly familiar with proper waste handling and emergency procedures relevant to their responsibilities during normal facility operations and emergencies.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Subparagraph (a) of paragraph (27) of Rule 0400-12-01-.02 Identification and Listing of Hazardous Waste is amended by deleting it in its entirety and substituting instead the following:

- (a) Applicability ~~[40 CFR 261.1030]~~

This paragraph applies to process vents associated with distillation, fractionation, thin-film

evaporation, solvent extraction, or air or stream stripping operations that manage hazardous secondary materials excluded under the remanufacturing exclusion at (1)(d)1(xxvii) of this rule with concentrations of at least 10 ppmw, unless the process vents are equipped with operating air emission controls in accordance with the requirements of an applicable Clean Air Act regulation codified under 40 C.F.R. part 60, part 61, or part 63, or an equivalent rule under the Tennessee Air Quality Act ~~and Rule Division 1200-03 or Rule Division 0400-30.~~

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Part 14 of subparagraph (d) of paragraph (27) of Rule 0400-12-01-.02 Identification and Listing of Hazardous Waste are amended by deleting them in their entirety and substituting instead the following:

14. The owner or operator using a carbon adsorption system to control air pollutant emissions shall document that all carbon that is a hazardous waste and that is removed from the control device is managed in one of the following manners, regardless of the average volatile organic concentration of the carbon:
  - (i) Regenerated or reactivated in a thermal treatment unit that meets one of the following:
    - (I) The owner or operator of the unit has been issued a final permit under Rule 0400-12-01-.07 ~~which that~~ implements the requirements of paragraph (27) of Rule 0400-12-01-.06;
    - (II) The unit is equipped with ~~and is~~ operating ~~air emission controls in accordance with the applicable requirements of either paragraphs (27) and (29) of either this rule or Rule 0400-12-01-.05 or paragraphs (30) and (32) of Rule 0400-12-01-.06;~~ or
    - (III) The unit is equipped with and operating air emission controls in accordance with a national emission standard for hazardous air pollutants under 40 ~~CFR C.F.R.~~ part 61 or 40 ~~CFR C.F.R.~~ part 63 or an equivalent rule under the Tennessee Air Quality Act.
  - (ii) Incinerated in a hazardous waste incinerator for which the owner or operator either:
    - (I) Has been issued a final permit under Rule 0400-12-01-.07 ~~which that~~ implements the requirements of paragraph (15) of Rule 0400-12-01-.06; or
    - (II) Has designed and operates the incinerator in accordance with the interim status requirements of paragraph (15) of Rule 0400-12-01-.05.
  - (iii) Burned in a boiler or industrial furnace for which the owner or operator either:
    - (I) Has been issued a final permit under Rule 0400-12-01-.07 ~~which that~~ implements the requirements of paragraph (8) of Rule 0400-12-01-.09; or
    - (II) Has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of paragraph (8) of Rule 0400-12-01-.09.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Part 1 of subparagraph (a) of paragraph (28) of Rule 0400-12-01-.02 Identification and Listing of Hazardous Waste is amended by deleting it in its entirety and substituting instead the following:

1. This paragraph applies to equipment that contains hazardous secondary materials excluded under the remanufacturing exclusion at subpart (1)(d)1(xxvii) of this rule, unless the equipment operations are subject to the requirements of an applicable Clean Air Act regulation codified under 40 ~~CFR C.F.R.~~ part 60, part 61, or part 63 or an equivalent rule

under the Tennessee Air Quality Act.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Subpart (ii) of part 2 of subparagraph (k) of paragraph (28) of Rule 0400-12-01-.02 Identification and Listing of Hazardous Waste is amended by deleting it in its entirety and substituting instead the following:

- (ii) Any unit that begins operation after ~~July 13, 2015~~ January 4, 2018 and is subject to the provisions of this paragraph when operation begins, must comply with the rules immediately (i.e., must have control devices installed and operating on startup of the affected unit); the 30-month implementation schedule does not apply.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Subpart (iv) of part 2 of subparagraph (k) of paragraph (28) of Rule 0400-12-01-.02 Identification and Listing of Hazardous Waste is amended by deleting it in its entirety and substituting instead the following:

- (iv) Remanufacturers or other persons that store or treat ~~the~~ hazardous secondary materials at facilities and units ~~already subject to federal law that became newly subject to the requirements of this paragraph after January 4, 2018~~, due to an action other than those described in subpart ~~2(ii)~~ ~~(iii)~~ of this ~~subparagraph part~~ must comply with all applicable requirements immediately (i.e., must have control devices installed and operating on the date the facility or unit becomes subject to this subpart; the 30-month implementation schedule does not apply).

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Part 1 of subparagraph (a) of paragraph (29) of Rule 0400-12-01-.02 Identification and Listing of Hazardous Waste is amended by deleting it in its entirety and substituting instead the following:

1. This paragraph applies to tanks and containers that contain hazardous secondary materials excluded under the remanufacturing exclusion at subpart (1)(d)1(xxvii) of this rule, unless the tanks and containers are equipped with and operating air emission controls in accordance with the requirements of an applicable Clean Air Act regulations codified under 40 CFR C.F.R. part 60, part 61, or part 63 or an equivalent rule under the Tennessee Air Quality Act.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

The introductory text to subparagraph (b) of paragraph (29) of Rule 0400-12-01-.02 Identification and Listing of Hazardous Waste is amended, without impacting the definitions that follow, by deleting it in its entirety and substituting instead the following:

- (b) Definitions ~~[40 CFR 261.1081]~~

As used in this ~~subpart paragraph~~, all terms not defined herein shall have the meaning given to them in the Act and Rules 0400-12-01-.01 through 0400-12-01-.06 and 0400-12-01-.09.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

The definition of “point of material origination” in subparagraph (b) of paragraph (29) of Rule 0400-12-01-.02 Identification and Listing of Hazardous Waste is amended by deleting it in its entirety and substituting instead the following while remaining in alphabetical order.

“Point of material origination” means as follows:

1. When the remanufacturer or other person that stores or treats the hazardous secondary material is the generator of the hazardous secondary material, the point of material origination means the point where a material produced by a system, process, or material management unit is determined to be a hazardous secondary material excluded under

subpart (1)(d)1(xxvii) of this rule.

(Note: This term is being used in a manner similar to the use of the term “point of generation” in air standards established under authority of the Clean Air Act in 40 ~~CFR C.F.R.~~ parts 60, 61, and 63 or an equivalent rule under the authority of the Tennessee Air Quality Act.)

2. When the remanufacturer or other person that stores or treats the hazardous secondary material is not the generator of the hazardous secondary material, point of material origination means the point where the remanufacturer or other person that stores or treats the hazardous secondary material accepts delivery or takes possession of the hazardous secondary material

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Part 1 of subparagraph (a) of paragraph (29) of Rule 0400-12-01-.02 Identification and Listing of Hazardous Waste is amended by deleting it in its entirety and substituting instead the following:

- (ii) Transfer of hazardous secondary material in or out of a container using Container Level 2 controls shall be conducted in such a manner as to minimize exposure of the hazardous secondary material to the atmosphere, to the extent practical, considering the physical properties of the hazardous secondary material and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that ~~the EPA considers to~~ meet the requirements of this subpart include using any one of the following: a submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous secondary material is filled and subsequently purging the transfer line before removing it from the container opening.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Part 8 of subparagraph (g) of paragraph (29) of Rule 0400-12-01-.02 Identification and Listing of Hazardous Waste is amended by deleting it in its entirety and substituting instead the following:

8. Procedure for determining a container to be vapor-tight using Method 27 of 40 ~~CFR C.F.R.~~ part 60, appendix A for the purpose of complying with item ~~4(i)(II)~~ 4(i)(III) of this subparagraph.
  - (i) The test shall be performed in accordance with Method 27 of 40 ~~CFR C.F.R.~~ part 60, appendix A ~~of this chapter.~~
  - (ii) A pressure measurement device shall be used that has a precision of  $\pm 2.5$  mm water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness.
  - (iii) If the test results determined by Method 27 indicate that the container sustains a pressure change less than or equal to 750 Pascals within ~~5~~ five minutes after it is pressurized to a minimum of 4,500 Pascals, then the container is determined to be vapor-tight.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Part 6 of subparagraph (j) of paragraph (29) of Rule 0400-12-01-.02 Identification and Listing of Hazardous Waste is amended by deleting it in its entirety and substituting instead the following:

6. The remanufacturer or other person that stores or treats the hazardous secondary material using a tank or container exempted under the hazardous secondary material organic concentration conditions specified in ~~subpart (c)3(i) of this paragraph or items (c)3(ii)(I)~~

~~through (IV) part (c)3~~ of this paragraph, shall prepare and maintain at the facility records documenting the information used for each material determination (e.g., test results, measurements, calculations, and other documentation). If analysis results for material samples are used for the material determination, then the remanufacturer or other person that stores or treats the hazardous secondary material shall record the date, time, and location that each material sample is collected in accordance with applicable requirements of subparagraph (d) of this paragraph.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Item (II) of subpart (i) of part 2 of subparagraph (a) of paragraph (1) of Rule 0400-12-01-.03 Notification Requirements and Standards Applicable to Generators of Hazardous Waste is amended by deleting it in its entirety and substituting instead the following:

- (II) A generator that accumulates hazardous waste on site is a person that stores hazardous waste; such generator is subject to the applicable requirements of Rules 0400-12-01-.05 through 0400-12-01-.09 and ~~paragraph (2) the notification requirements~~ of this ~~rule chapter~~, unless it is one of the following:
  - I. A very small quantity generator that meets the conditions for exemption in subparagraph (e) of this paragraph;
  - II. A small quantity generator that meets the conditions for exemption in subparagraphs (f) and (g) of this paragraph; or
  - III. A large quantity generator that meets the conditions for exemption in subparagraphs (f) and (h) of this paragraph.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Subparagraph (b) of paragraph (9) of Rule 0400-12-01-.03 Notification Requirements and Standards Applicable to Generators of Hazardous Waste is amended by replacing the current definitions of “disposal operations” and “recovery operations” with new definitions for “disposal operations” and “recovery operations” while remaining in alphabetical order to read as follows:

“Disposal operations” means activities ~~which that~~ do not lead to the possibility of resource recovery, recycling, reclamation, direct re-use or alternate uses, which include:

1. D1 Release or Deposit into or onto land, other than by any of operations D2 through D5 or D12.
2. D2 Land treatment, such as biodegradation of liquids or sludges in soils.
3. D3 Deep injection, such as injection into wells, salt domes, or naturally-occurring repositories.
4. D4 Surface impoundment, such as placing of liquids or sludges into pits, ponds, or lagoons.
5. D5 Specially engineered landfill, such as placement into lined discrete cells ~~which that~~ are capped and isolated from one another and the environment.
6. D6 Release into a water body other than a sea or ocean, and other than by operation D4.
7. D7 Release into a sea or ocean, including sea-bed insertion, other than by operation D4.
8. D8 Biological treatment not specified elsewhere in operations D1 through D12, ~~which that~~ results in final compounds or mixtures ~~which are~~ discarded by means of any of operations D1 through D12.
9. D9 Physical or chemical treatment not specified elsewhere in operations D1 through D12,



such as evaporation, drying, calcination, neutralization, or precipitation, ~~which that~~ results in final compounds or mixtures ~~which are~~ discarded by means of any of operations D1 through D12.

10. D10 Incineration on land.
11. D11 Incineration at sea.
12. D12 Permanent storage.
13. D13 ~~Blending~~ Interim blending or mixing, ~~prior to any of before an operation that bears any of the disposal~~ operations D1 through D12.
14. D14 ~~Repackaging, prior to any of~~ Interim repackaging, before an operation that bears any of the disposal operations D1 through ~~D13~~ D12.
15. D15 ~~(or DC17 for transboundary movements with Canada only)~~ Interim Storage, prior to any of before an operation that bears any of the disposal operations D1 through D12.
16. ~~DC15~~ DC1 Release, including the venting of compressed or liquified gases, or treatment, other than by any of ~~operations~~ disposal operation codes D1 to D12 (for transboundary movements with Canada only).
17. ~~DC16~~ DC2 Testing of a new technology to dispose of a hazardous waste (for transboundary movements with Canada only).

“Recovery operations” means activities leading to resource recovery, recycling, reclamation, direct re-use, or alternative uses, which include:

1. R1 Use as a fuel (other than in direct incineration) or other means to generate energy.
2. R2 Solvent reclamation/regeneration.
3. R3 Recycling/reclamation of organic substances ~~which that~~ are not used as solvents.
4. R4 Recycling/reclamation of metals and metal compounds.
5. R5 Recycling/reclamation of other inorganic materials.
6. R6 Regeneration of acids or bases.
7. R7 Recovery of components used for pollution abatement.
8. R8 Recovery of components used from catalysts.
9. R9 Used oil re-refining or other reuses of previously used oil.
10. R10 Land treatment resulting in benefit to agriculture or ecological improvement.
11. R11 ~~Uses~~ Use of residual materials obtained from any of the ~~operations~~ recovery operation codes numbered ~~R1-R10 or RC14 (for transboundary shipments with Canada only)~~ R1 through R10 or RC1.
12. R12 ~~Exchange~~ Interim exchange of wastes ~~for submission to any of the operations numbered R1-R11 or RC14 (for transboundary shipments with Canada only) before recycling using any of the recovery operation codes numbered R1 through R11 or RC1~~.
13. R13 ~~Accumulation of material intended for any operation numbered R1-R12 or RC14 (for transboundary shipments with Canada only)~~ Interim accumulation of wastes before recycling using any of the recovery operation codes numbered R1 through R11 or RC1.

14. ~~RC14~~ RC1 Recovery or regeneration of a substance or use or re-use of a recyclable material, other than by any of operations R1 to R10 (for transboundary shipments with Canada only).
15. ~~RC15~~ RC2 Testing of a new technology to recycle a hazardous recyclable material (for transboundary shipments with Canada only).
16. ~~RC16~~ RC3 Interim storage prior to any of operations R1 to R11 or ~~RC14~~ RC1 (for transboundary shipments with Canada only).

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Subpart (iii) of part 2 of subparagraph (d) of paragraph (9) of Rule 0400-12-01-.03 Notification Requirements and Standards Applicable to Generators of Hazardous Waste is amended by deleting it in its entirety and substituting instead the following:

- (iii) Notifications listing interim recycling operations or interim disposal operations. If the foreign receiving facility listed in item (i)(II) of this part will engage in any of the interim recovery operations R12 or R13 or interim disposal operations D13 through D15, or in the case of transboundary movements with Canada, any of the interim recovery operations R12, R13, or ~~RC16~~ RC3, or interim disposal operations D13 to D14, or ~~DC17~~ D15, the notification submitted according to subpart (i) of this part must also include the final foreign recovery or disposal facility name, address, telephone number, fax numbers, email address, technologies employed, and which of the applicable recovery or disposal operations R1 through R11 and D1 through D12, or in the case of transboundary movements with Canada, which of the applicable recovery or disposal operations R1 through R11, ~~RC14 to RC15~~ RC1 to RC2, D1 through D12, and ~~DC15 to DC16~~ DC1 to DC2 will be employed at the final foreign recovery or disposal facility. The recovery and disposal operations in this subpart are defined in subparagraph (b) of this paragraph.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Subpart (vi) of part 6 of subparagraph (d) of paragraph (9) of Rule 0400-12-01-.03 Notification Requirements and Standards Applicable to Generators of Hazardous Waste is amended by deleting it in its entirety and substituting instead the following:

- (vi) Contracts must specify that the foreign importer or the foreign receiving facility that performed interim recycling operations R12, R13, or ~~RC16~~ RC3, or interim disposal operations D13 through D15 ~~or DC17~~, (recovery and disposal operations defined in subparagraph (b) of this paragraph) as appropriate, will:
  - (I) Provide the notification required in item (iii)(II) of this part prior to any re-export of the hazardous wastes to a final foreign recovery or disposal facility in a third country; and
  - (II) Promptly send copies of the confirmation of recovery or disposal that it receives from the final foreign recovery or disposal facility within one year of shipment delivery to the final foreign recovery or disposal facility that performed one of recovery operations R1 through R11, or ~~RC16~~ RC1, or one of disposal operations D1 through D12, ~~DC15 or DC16~~ DC1 or DC2 to the competent authority of the country of import. For contracts that will be in effect on or after the electronic import-export reporting compliance date, the contracts must additionally specify that the foreign facility send copies to EPA at the same time using the allowable method listed in subpart 2(i) of this subparagraph on or after that date.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Subpart (ii) of part 2 of subparagraph (e) of paragraph (9) of Rule 0400-12-01-.03 Notification Requirements and Standards Applicable to Generators of Hazardous Waste is amended by deleting it in its entirety and substituting

instead the following:

- (ii) Notifications listing interim recycling operations or interim disposal operations. If the receiving facility listed in item (i)(II) of this part will engage in any of the interim recovery operations R12, ~~or~~ R13, or RC3 or interim disposal operations D13 through D15, the notification submitted according to subpart (i) of this part must also include the final recovery or disposal facility name, address, telephone, fax numbers, email address, technologies employed, and which of the applicable recovery or disposal operations R1 through R11, RC1, and D1 through D12, will be employed at the final recovery or disposal facility. The recovery and disposal operations in this subpart are defined in subparagraph (b) of this paragraph.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Subpart (v) of part 6 of subparagraph (e) of paragraph (9) of Rule 0400-12-01-.03 Notification Requirements and Standards Applicable to Generators of Hazardous Waste is amended by deleting it in its entirety and substituting instead the following:

- (v) Contracts must specify that the importer or the receiving facility that performed interim recycling operations R12, R13, or ~~RC16~~ RC3, or interim disposal operations D13 through D15 ~~or DC15 through DC17~~, as appropriate, will provide the notification required in subpart (d)2(vii) of this paragraph prior to the re-export of hazardous wastes. The recovery and disposal operations in this paragraph are defined in subparagraph (b) of this paragraph.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Subpart (ii) of part 7 of subparagraph (e) of paragraph (9) of Rule 0400-12-01-.03 Notification Requirements and Standards Applicable to Generators of Hazardous Waste is amended by deleting it in its entirety and substituting instead the following:

- (ii) If the receiving facility performed any of recovery operations R12, R13, or ~~RC16~~ RC3, or disposal operations D13 through D15, ~~or DC17~~, the receiving facility shall promptly send copies of the confirmation of recovery or disposal that it receives from the final recovery or disposal facility within one year of shipment delivery to the final recovery or disposal facility that performed one of recovery operations R1 through R11, or ~~RC14 to RC15~~ RC1 to RC2, or one of disposal operations D1 through D12, or ~~DC15 to DC16~~ DC1 to DC2, to the competent authority of the country of export, and for confirmations received on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system. The recovery and disposal operations in this paragraph are defined in subparagraph (b) of this paragraph.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Item (III) of subpart (ii) of part 8 of subparagraph (e) of paragraph (9) of Rule 0400-12-01-.03 Notification Requirements and Standards Applicable to Generators of Hazardous Waste is amended by deleting it in its entirety and substituting instead the following:

- (III) For the receiving facility that performed any of recovery operations R12, R13, or ~~RC16~~ RC3, or disposal operations D13 through D15, ~~or DC17~~ (recovery and disposal operations defined in subparagraph (b) of this paragraph), a copy of each confirmation of recovery or disposal that the final recovery or disposal facility sent to it for at least three years from the date that the final recovery or disposal facility completed processing the waste shipment; and

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Part 4 of subparagraph (j) of paragraph (12) of Rule 0400-12-01-.03 Notification Requirements and Standards Applicable to Generators of Hazardous Waste is amended by deleting it in its entirety.

~~4. For a facility possessing 24-hour response capabilities, submission of a copy of the contingency plan and of the quick reference guide as required by parts 1 and 2 of this subparagraph to a local emergency responder (i.e., police department, fire department, hospital, and state and local emergency response teams) is not required, provided a waiver has been obtained in accordance with part (g)3 of this paragraph that specifies that the services of the local emergency responder is not needed in the event of an emergency.~~

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Subpart (ix) of part 2 of subparagraph (b) of paragraph (1) of Rule 0400-12-01-.05 Interim Status Standards for Owners and Operators of Existing Hazardous Waste Treatment, Storage, and Disposal Facilities is amended by deleting it in its entirety and substituting instead the following:

(ix) ~~Reserved; A person disposing of hazardous waste by means of underground injection subject to permits issued under Chapter 0400-45-06 of the rules of the State of Tennessee and under Part C of the Federal Safe Drinking Water Act (42 U.S.C. 3001 et seq.);~~

~~(Comment: This rule does apply to the aboveground treatment or storage of hazardous waste before it is injected underground.)~~

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Item (II) of subpart (iv) of part 1 of subparagraph (c) of paragraph (2) of Rule 0400-12-01-.05 Interim Status Standards for Owners and Operators of Existing Hazardous Waste Treatment, Storage, and Disposal Facilities is amended by deleting it in its entirety and substituting instead the following:

(II) If the facility performed any of recovery operations R12, R13, or ~~RC16 RC3~~, or disposal operations D13 through D15, ~~or DC17~~, promptly send copies of the confirmation of recovery or disposal that it receives from the final recovery or disposal facility within one year of shipment delivery to the final recovery or disposal facility that performed one of recovery operations R1 through R11, or ~~RC16 RC1~~, or one of disposal operations D1 through D12, or ~~DC15 to DC16 DC1 to DC2~~, to the competent authority of the country of export that controls the shipment as an export of hazardous waste, and on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system. The recovery and disposal operations in this item are defined in subparagraph (9)(b) of Rule 0400-12-01-.03.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Subpart (i) of part 4 of subparagraph (b) of paragraph (14) of Rule 0400-12-01-.05 Interim Status Standards for Owners and Operators of Existing Hazardous Waste Treatment, Storage, and Disposal Facilities is amended by deleting it in its entirety and substituting instead the following:

(i) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes do not contain constituents ~~which that~~ would render the wastes hazardous for reasons other than the Toxicity Characteristic in subparagraph (3)(e) of Rule 0400-12-01-.02~~(3)(d)~~, with Hazardous Waste Codes D004 through D017; and

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Part 2 of subparagraph (a) of paragraph (15) of Rule 0400-12-01-.05 Interim Status Standards for Owners and Operators of Existing Hazardous Waste Treatment, Storage, and Disposal Facilities is amended by deleting it in its entirety and substituting instead the following:

2. Integration of the MACT standards or equivalent state analogs
  - (i) Except as provided by subparts (ii) and (iii) of this part, the standards of this rule no longer apply when an owner or operator demonstrates compliance with the maximum achievable control technology (MACT) requirements of 40 CFR C.F.R. Part 63, Subpart EEE or equivalent state analog by conducting a comprehensive performance test and submitting to the Administrator and the Commissioner a Notification of Compliance under 40 CFR C.F.R. 63.1207(j) and 40 CFR C.F.R. 63.1210(d) or under equivalent state analogs documenting compliance with the requirements of 40 CFR Part 63, Subpart EEE or an equivalent state analog.
  - (ii) The following requirements continue to apply even where the owner or operator has demonstrated compliance with the MACT requirements of 40 CFR 63 Subpart EEE or an equivalent state analog: subparagraph (l) of this paragraph (Closure) and the applicable requirements of paragraphs (1) through (8), (28), and (29) of this rule.
  - (iii) Subparagraph (f) of this paragraph generally prohibiting burning of hazardous waste during startup and shutdown remains in effect if you elect to comply with item (12)(a)2(i)(l) of Rule 0400-12-01-.07 to minimize emissions of toxic compounds from startup and shutdown.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Item (II) of subpart (iv) of part 1 of subparagraph (c) of paragraph (2) of Rule 0400-12-01-.06 Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities is amended by deleting it in its entirety and substituting instead the following:

- (II) If the facility performed any of recovery operations R12, R13, or ~~RC16 RC3~~, or disposal operations D13 through D15, ~~or DC17~~, promptly send copies of the confirmation of recovery or disposal that it receives from the final recovery or disposal facility within one year of shipment delivery to the final recovery or disposal facility that performed one of recovery operations R1 through R11, or ~~RC16 RC1~~, or one of disposal operations D1 through D12, or ~~DC15 to DC16 DC1 to DC2~~, to the competent authority of the country of export that controls the shipment as an export of hazardous waste, and on or after the electronic import-export reporting compliance date, to EPA electronically using EPA's Waste Import Export Tracking System (WIETS), or its successor system. The recovery and disposal operations in this item are defined in subparagraph (9)(b) of Rule 0400-12-01-.03.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Part 2 of subparagraph (a) of paragraph (15) of Rule 0400-12-01-.06 Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities is amended by deleting it in its entirety and substituting instead the following:

2. Integration of the MACT standards or equivalent state analogs
  - (i) Except as provided by subparts (ii) through (iv) of this part, the standards of this rule do not apply to a new hazardous waste incineration unit that becomes subject to RCRA permit requirements after October 12, 2005; or no longer apply when an owner or operator of an existing hazardous waste incineration unit demonstrates compliance with the maximum achievable control technology (MACT) requirements of 40 CFR C.F.R. Part 63, Subpart EEE or equivalent state analog by conducting a comprehensive performance test and submitting to the Administrator and the Commissioner a Notification of Compliance under 40 CFR C.F.R. §§ 63.1207(j) and 63.1210(d) or under equivalent state analogs documenting compliance with the requirements of 40 CFR C.F.R. Part 63, Subpart

EEE or an equivalent state analog. Nevertheless, even after this demonstration of compliance with the MACT standards or equivalent state analog, Hazardous Waste permit conditions that were based on the standards of this rule will continue to be in effect until they are removed from the permit or the permit is terminated or revoked, unless the permit expressly provides otherwise.

- (ii) The MACT standards or equivalent state analogs do not replace the closure requirements of subparagraph ~~(15)(4) (l) of this paragraph~~ or the applicable requirements of paragraphs (1) through (8), (31), and (32) of this rule.
- (iii) The particulate matter standard of part (d)3 of this paragraph remains in effect for incinerators that elect to comply with the alternative to the particulate matter standard of 40 C.F.R. §§ 63.1206(b)(14) and 63.1219(e) or equivalent state analogs.
- (iv) The following requirements remain in effect for startup, shutdown, and malfunction events if ~~you elect~~ owner or operator elects to comply with ~~item (12)(a)1(i)(l) of Rule 0400-12-01-.07(12)(a)1(i)(l)~~ to minimize emissions of toxic compounds from these events:
  - (I) Part ~~(15)(f)1~~ of this ~~rule paragraph~~ requiring that an incinerator operate in accordance with operating requirements specified in the permit; and
  - (II) Part ~~(15)(f)3~~ of this ~~rule paragraph~~ requiring compliance with the emission standards and operating requirements during startup and shutdown if hazardous waste is in the combustion chamber, except for particular hazardous wastes.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

The introductory text of subparagraph (e) of paragraph (1) of Rule 0400-12-01-.07 Permitting of Hazardous Waste Treatment, Storage, and Disposal Facilities is amended, without amending any of its parts, by deleting it in its entirety and substituting instead the following introductory text:

- (e) Hazardous Waste Incinerator Permits ~~[40 CFR 270.62]~~

When an owner or operator of a hazardous waste incineration unit becomes subject to RCRA permit requirements after October 12, 2005, or when an owner or operator of an existing hazardous waste incineration unit demonstrates compliance with the air emission standards and limitations in 40 CFR C.F.R. 63 Subpart EEE or equivalent state analog (i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance under 40 CFR C.F.R. §§ 63.1207(j) and 63.1210(d) or equivalent state analogs documenting compliance with all applicable requirements of 40 CFR C.F.R. 63 Subpart EEE or equivalent state analog), the requirements of this subparagraph do not apply, except those provisions the Commissioner determines are necessary to ensure compliance with parts (15)(f)1 and 3 of Rule 0400-12-01-.06 if you elect to comply with item (12)(a)1(i)(l) of this rule to minimize emissions of toxic compounds from startup, shutdown, and malfunction events. Nevertheless, the Commissioner may apply the provisions of this subparagraph, on a case-by-case basis, for purposes of information collection in accordance with subparagraphs (2)(g) and (h) and subparts (8)(b)2(ii) and (iii) of this rule.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

The introductory text of subparagraph (j) of paragraph (1) of Rule 0400-12-01-.07 Permitting of Hazardous Waste Treatment, Storage, and Disposal Facilities is amended, without amending any of its parts, by deleting it in its entirety and substituting instead the following introductory text:

- (j) Permits for Boilers and Industrial Furnaces Burning Hazardous Waste ~~[40 CFR 270.66]~~

When an owner or operator of a cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace becomes subject to RCRA permit requirements after October 12, 2005 or when an owner or operator of an existing cement kiln, lightweight aggregate

kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace demonstrates compliance with the air emission standards and limitations in 40 [CFR C.F.R.](#) 63 Subpart EEE [or equivalent state analog](#) (i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance under 40 [CFR C.F.R.](#) §§ 63.1207(j) and 63.1210(d) [or equivalent state analogs](#) documenting compliance with all applicable requirements of 40 [CFR C.F.R.](#) 63 Subpart EEE [or equivalent state analog](#)), the requirements of this subparagraph do not apply. The requirements of this subparagraph do apply, however, if the Commissioner determines certain provisions are necessary to ensure compliance with subpart (8)(c)5(i) and item (8)(c)5(ii)(III) of Rule 0400-12-01-.09 if ~~you elect the owner or operator elects~~ to comply with subpart (12)(a)1(i) of this rule to minimize emissions of toxic compounds from startup, shutdown, and malfunction events; or if you are an area source and elect to comply with subparagraphs (8)(f), (g), and (h) of Rule 0400-12-01-.09 standards and associated requirements for particulate matter, hydrogen chloride and chlorine gas, and non-mercury metals; or the Commissioner determines certain provisions apply, on a case-by-case basis, for purposes of information collection in accordance with subparagraphs (2)(g) and (h) and subparts (8)(b)2(ii) and (iii) of this rule.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Subparagraph (h) of paragraph (2) of Rule 0400-12-01-.07 Permitting of Hazardous Waste Treatment, Storage, and Disposal Facilities is amended by deleting it in its entirety and substituting instead the following:

- (h) ~~General application requirements [40 CFR 270.10(l)] 1.~~ If the Commissioner concludes, based on one or more of the factors listed in ~~subpart (i) of this part~~ [1 of this subparagraph](#) that compliance with the standards of 40 [CFR C.F.R.](#) Part 63, Subpart EEE [or equivalent state analog](#) alone may not be protective of human health or the environment, the Commissioner shall require the additional information or assessment(s) necessary to determine whether additional controls are necessary to ensure protection of human health and the environment. This includes information necessary to evaluate the potential risk to human health ~~and/or and~~ the environment resulting from both direct and indirect exposure pathways. The Commissioner may also require a permittee or applicant to provide information necessary to determine whether such an assessment(s) should be required.

~~(h)1.~~ The Commissioner shall base the evaluation of whether compliance with the standards of 40 [CFR C.F.R.](#) Part 63 Subpart EEE [or equivalent state analog](#) alone is protective of human health ~~or and~~ the environment on factors relevant to the potential risk from a hazardous waste combustion unit, including as appropriate, any of the following factors:

- ~~(h)(i)~~ Particular site-specific considerations such as proximity to receptors (such as schools, hospitals, nursing homes, day care centers, parks, community activity centers, or other potentially sensitive receptors), unique dispersion patterns, etc.;
- ~~(h)(ii)~~ Identities and quantities of emissions of persistent, bioaccumulative, or toxic pollutants considering enforceable controls in place to limit those pollutants;
- ~~(h)(iii)~~ Identities and quantities of nondioxin products of incomplete combustion most likely to be emitted and to pose significant risk based on known toxicities (confirmation of which should be made through emissions testing);
- ~~(h)(iv)~~ Identities and quantities of other off-site sources of pollutants in proximity of the facility that significantly influence interpretation of a facility-specific risk assessment;
- ~~(h)(v)~~ Presence of significant ecological considerations, such as the proximity of a particularly sensitive ecological area;
- ~~(h)(vi)~~ Volume and types of wastes, for example wastes containing highly toxic constituents;
- ~~(h)(vii)~~ Other on-site sources of hazardous air pollutants that significantly influence interpretation of the risk posed by the operation of the source in question;
- ~~(h)(viii)~~ Adequacy of any previously conducted risk assessment, given any subsequent

changes in conditions likely to affect risk; and

~~(X)(ix)~~ Such other factors as may be appropriate.

~~(#)2.~~ Reserved.

~~2. (RESERVED)~~

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Subpart (v) of part 5 of subparagraph (b) of paragraph (5) of Rule 0400-12-01-.07 Permitting of Hazardous Waste Treatment, Storage, and Disposal Facilities is amended by deleting it in its entirety and substituting instead the following:

- (v) When an owner or operator of a hazardous waste incineration unit becomes subject to RCRA permit requirements after October 12, 2005, or when an owner or operator of an existing hazardous waste incineration unit demonstrates compliance with the air emission standards and limitations in 40 ~~CFR C.F.R.~~ 63 Subpart EEE or equivalent state analog (i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance under 40 ~~CFR C.F.R.~~ §§ 63.1207(j) and 63.1210(d) or equivalent state analogs documenting compliance with all applicable requirements of 40 ~~CFR C.F.R.~~ 63 Subpart EEE or equivalent state analog), the requirements of this part do not apply, except those provisions the Commissioner determines are necessary to ensure compliance with parts (15)(f) 1 and 3 of Rule 0400-12-01-.06 if ~~you elect the owner or operator elects~~ to comply with subpart (12)(a)1(i)(I) of this rule to minimize emissions of toxic compounds from startup, shutdown, and malfunction events. Nevertheless, the Commissioner may apply the provisions of this part, on a case-by-case basis, for purposes of information collection in accordance with subparagraphs (2)(g) and (2)(h) and subparts (8)(b)2(ii) and (iii) of this rule.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

The introductory text of part 8 of subparagraph (b) of paragraph (5) of Rule 0400-12-01-.07 Permitting of Hazardous Waste Treatment, Storage, and Disposal Facilities is amended, without amending any of its subparts, by deleting it in its entirety and substituting instead the following introductory text:

8. Specific Part B Information Requirements for Boilers and Industrial Furnaces Burning Hazardous Waste ~~[40 CFR 270.22]~~

When an owner or operator of a cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace becomes subject to RCRA permit requirements after October 12, 2005, or when an owner or operator of an existing cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace demonstrates compliance with the air emission standards and limitations in 40 ~~CFR C.F.R.~~ Part 63 Subpart EEE or equivalent state analog (i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance under 40 ~~CFR C.F.R.~~ §§ 63.1207(j) and 63.1210(d) or equivalent state analogs documenting compliance with all applicable requirements of 40 ~~CFR C.F.R.~~ Part 63, Subpart EEE or equivalent state analog), the requirements of this part do not apply. The requirements of this part do apply, however, if the Commissioner determines certain provisions are necessary to ensure compliance with subpart (8)(c)5(i) and item (8)(c)5(ii)(III) of Rule 0400-12-01-.09 if ~~you elect the owner or operator elects~~ to comply with subpart (12)(a)1(i)(I) of this rule to minimize emissions of toxic compounds from startup, shutdown, and malfunction events; or if ~~you are if the owner or operator is~~ an area source and ~~elect elects~~ to comply with the subparagraphs (8)(f), (8)(g), and (8)(h) of Rule 0400-12-01-.09 standards and associated requirements for particulate matter, hydrogen chloride and chlorine gas, and non-mercury metals; or the Commissioner determines certain provisions apply, on a case-by-case basis, for purposes of information collection in accordance with subparagraphs (2)(g) and (h) and subparts (8)(b)2(ii) and (iii) of this rule.



Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Item (III) of subpart (iv) of part 10 of subparagraph (b) of paragraph (5) of Rule 0400-12-01-.07 Permitting of Hazardous Waste Treatment, Storage, and Disposal Facilities is amended by deleting it in its entirety and substituting instead the following:

- (III) A design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of “APTI Course 415: Control of Gaseous Emissions” ([EPA, December 1981](#)) (~~listed incorporated by reference as specified in subparagraph (2)(b) of Rule 0400-12-01-.01(2)(b)~~) or other engineering texts acceptable to the Commissioner that present basic control device information. The design analysis shall address the vent stream characteristics and control device operation parameters as specified in [item \(30\)\(f\)2\(iv\)\(III\) of Rule 0400-12-01-.06\(30\)\(f\)2\(iv\)\(III\)](#).

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Item (III) of subpart (v) of part 11 of subparagraph (b) of paragraph (5) of Rule 0400-12-01-.07 Permitting of Hazardous Waste Treatment, Storage, and Disposal Facilities is amended by deleting it in its entirety and substituting instead the following:

- (III) A design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of “ATPI Course 415: Control of Gaseous Emissions” ([EPA December 1981](#)) (~~listed incorporated by reference as specified in subparagraph (2)(b) of Rule 0400-12-01-.01(2)(b)~~) or other engineering texts acceptable to the Commissioner that present basic control device information. The design analysis shall address the vent stream characteristics and control device operation parameters as specified in [item \(30\)\(f\)2\(iv\)\(III\) of Rule 0400-12-01-.06\(30\)\(f\)2\(iv\)\(III\)](#).

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Subpart (iii) of part 2 of subparagraph (b) of paragraph (8) of Rule 0400-12-01-.07 Permitting of Hazardous Waste Treatment, Storage, and Disposal Facilities is amended by deleting it in its entirety and substituting instead the following:

- (iii) If, as the result of an assessment(s) or other information, the Commissioner determines that conditions are necessary in addition to those required under 40 [CFR C.F.R. Part 63 Subpart EEE](#) [or equivalent state analog](#), Rule 0400-12-01-.06, or Rule 0400-12-01-.09 to ensure protection of human health and the environment, he shall include those terms and conditions in a RCRA permit for a hazardous waste combustion unit.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Subparts (x) and (xi) of part 5 of subparagraph (c) of paragraph (9) of Rule 0400-12-01-.07 Permitting of Hazardous Waste Treatment, Storage, and Disposal Facilities are amended by deleting them in their entirety and substituting instead the following:

- (x) Combustion facility changes to meet 40 [CFR C.F.R.](#) part 63 MACT standards [or equivalent state analog](#). The following procedures apply to hazardous waste combustion facility permit modifications requested under Appendix I to Rule 0400-12-01-.07 of paragraph (10) of this rule.
- (I) Facility owners or operators must have complied with the Notification of Intent to Comply (NIC) requirements of 40 [CFR C.F.R. § 63.1210](#) [or equivalent state analog](#) that were in effect prior to October 11, 2000, (~~See 40 CFR Part 63 §§ 63.1200–63.1499 revised as of July 1, 2000~~) in order to request a permit modification under this part for the purpose of technology changes needed to meet the standards under 40 [CFR C.F.R.](#)

§§ 63.1203, 63.1204, and 63.1205 or equivalent state analogs.

- (II) Facility owners or operators must comply with the Notification of Intent to Comply (NIC) requirements of 40 CFR C.F.R. §§ 63.1210(b) and 63.1212(a) or equivalent state analogs before a permit modification can be requested under this part for the purpose of technology changes needed to meet the 40 CFR C.F.R. §§ 63.1215, 63.1216, 63.1217, 63.1218, 63.1219, 63.1220, and 63.1221 standards promulgated on October 12, 2005 or equivalent state analogs.
  - (III) If the Commissioner does not approve or deny the request within 90 days of receiving it, the request shall be deemed approved. The Commissioner may, at his-or-her the Commissioner's discretion, extend this 90-day deadline one time for up to 30 days by notifying the facility owner or operator.
- (xi) Waiver of RCRA permit conditions in support of transition to the 40 CFR C.F.R. 63 MACT standards or equivalent state analog.
- (I) You may request to have specific RCRA operating and emissions limits waived by submitting a Class 1 permit modification request under part (10)(I)10 (Appendix I to Rule 0400-12-01-.07). You must:
    - I. Identify the specific RCRA permit operating and emissions limits which you are requesting to waive;
    - II. Provide an explanation of why the changes are necessary in-order to minimize or eliminate conflicts between the RCRA permit and MACT compliance; and
    - III. Discuss how the revised provisions will be sufficiently protective.
    - IV. The Commissioner shall approve or deny the request within 30 days of receipt of the request. The Commissioner may, at his-or-her the Commissioner's discretion, extend this 30-day deadline one time for up to 30 days by notifying the facility owner or operator.
  - (II) To request this modification in conjunction with MACT performance testing where permit limits may only be waived during actual test events and pretesting, as defined under 40 CFR C.F.R. § 63.1207(h)(2)(i) and (ii) or under an equivalent state analog, for an aggregate time not to exceed 720 hours of operation (renewable at the discretion of the Commissioner) you must:
    - I. Submit your the modification request to the Commissioner at the same time you submit your test plans to the Commissioner; and
    - II. The Commissioner may elect to approve or deny the request contingent upon approval of the test plans.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Part 10 of subparagraph (I) of paragraph (10) APPENDIX I to Rule 0400-12-01-.07 [40 CFR 270.42 APPENDIX I] of Rule 0400-12-01-.07 Permitting of Hazardous Waste Treatment, Storage, and Disposal Facilities is amended by deleting it in its entirety and substituting instead the following:

10. Changes to RCRA permit provisions needed to support transition to 40 CFR C.F.R. Part 63 (Subpart EEE—National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors) or to an equivalent state analog, provided the procedures of subpart (9)(c)5(xi) of Rule 0400-12-01-.07 (9)(c)5(xi) are followed.

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Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Paragraph (12) of Rule 0400-12-01-.07 Permitting of Hazardous Waste Treatment, Storage, and Disposal Facilities is amended by deleting it in its entirety and substituting instead the following:

(12) Integration with Maximum Achievable Control Technology (MACT) Standards or Equivalent State Analogs.  
~~[40 CFR 270 Subpart I]~~

(a) Options for incinerators, cement kilns, lightweight aggregate kilns, solid fuel boilers, liquid fuel boilers, and hydrochloric acid production furnaces to minimize emissions from startup, shutdown, and malfunction events. ~~[40 CFR 270.235]~~

1. Facilities with existing permits.

(i) Revisions to permit conditions after documenting compliance with MACT.

The owner or operator of a RCRA-permitted incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace may request that the Commissioner address permit conditions that minimize emissions from startup, shutdown, and malfunction events under any of the following options when requesting removal of permit conditions that are no longer applicable according to part (15)(a)2 of Rule 0400-12-01-.06 and part ~~(8)(a)(2)~~ (8)(a)2 of Rule 0400-12-01-.09:

(I) Retain relevant permit conditions. Under this option, the Commissioner will:

- I. Retain permit conditions that address releases during startup, shutdown, and malfunction events, including releases from emergency safety vents, as these events are defined in the facility's startup, shutdown, and malfunction plan required under 40 CFR C.F.R. § 63.1206(c)(2) or equivalent state analog; and
- II. Limit applicability of those permit conditions only to when the facility is operating under its startup, shutdown, and malfunction plan.

(II) Revise relevant permit conditions.

I. Under this option, the Commissioner will:

- A. Identify a subset of relevant existing permit requirements, or develop alternative permit requirements, that ensure emissions of toxic compounds are minimized from startup, shutdown, and malfunction events, including releases from emergency safety vents, based on review of information including the source's startup, shutdown, and malfunction plan, design, and operating history.
- B. Retain or add these permit requirements to the permit to apply only when the facility is operating under its startup, shutdown, and malfunction plan.

II. Changes that may significantly increase emissions.

- A. You must notify the Commissioner in writing of changes to the startup, shutdown, and malfunction plan or changes to the design of the source that may significantly increase emissions of toxic compounds from startup, shutdown, or malfunction events, including releases from emergency

safety vents. You must notify the Commissioner of such changes within five days of making such changes. You must identify in the notification recommended revisions to permit conditions necessary as a result of the changes to ensure that emissions of toxic compounds are minimized during these events.

B. The Commissioner may revise permit conditions as a result of these changes to ensure that emissions of toxic compounds are minimized during startup, shutdown, or malfunction events, including releases from emergency safety vents either:

(A) Upon permit renewal, ~~;~~ or, if warranted;

(B) ~~If warranted by~~ By modifying the permit under part (9)(c)3 or part (9)(c)5 of this rule.

(III) Remove permit conditions. Under this option:

I. The owner or operator must document that the startup, shutdown, and malfunction plan required under 40 ~~CFR~~ C.F.R. § 63.1206(c)(2) or equivalent state analog has been approved by the Commissioner under 40 ~~CFR~~ C.F.R. § 63.1206(c)(2)(ii)(B) or equivalent state analog; and

II. The Commissioner will remove permit conditions that are no longer applicable according to part (15)(a)2 of Rule 0400-12-01-.06 and part (8)(a)2 of Rule 0400-12-01-.09.

(ii) Addressing permit conditions upon permit reissuance.

The owner or operator of an incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace that has conducted a comprehensive performance test and submitted to the Commissioner a Notification of Compliance documenting compliance with the standards of 40 ~~CFR~~ C.F.R. Part 63 Subpart EEE or equivalent state analog may request in the application to reissue the permit for the combustion unit that the Commissioner control emissions from startup, shutdown, and malfunction events under any of the following options:

(I) RCRA Option A.

I. Under this option, the Commissioner will:

A. Include, in the permit, conditions that ensure compliance with parts 1 and 3 of subparagraph (15)(f) of Rule 0400-12-01-.06 or subpart (8)(c)5(i) and item (8)(c)5(ii)(III) of Rule 0400-12-01-.09 to minimize emissions of toxic compounds from startup, shutdown, and malfunction events, including releases from emergency safety vents; and

B. Specify that these permit requirements apply only when the facility is operating under its startup, shutdown, and malfunction plan; or

(II) RCRA Option B.

I. Under this option, the Commissioner will:

- A. Include, in the permit conditions, that ensure emissions of toxic compounds are minimized from startup, shutdown, and malfunction events, including releases from emergency safety vents, based on review of information including the source's startup, shutdown, and malfunction plan, design and operating history; and
- B. Specify that these permit requirements apply only when the facility is operating under its startup, shutdown, and malfunction plan.

II. Changes that may significantly increase emissions.

- A. You must notify the Commissioner in writing of changes to startup, shutdown, and malfunction plan or changes to the design of the source that may significantly increase emissions of toxic compounds from startup, shutdown, or malfunction events, including releases from emergency safety vents. You must notify the Commissioner of such changes within five days of making such changes. You must identify in the notification recommended revisions to permit conditions necessary as a result of the changes to ensure that emissions of toxic compounds are minimized during these events.
- B. The Commissioner may revise permit conditions as a result of these changes to ensure that emissions of toxic compounds are minimized during startup, shutdown, or malfunction events, including releases from emergency safety vents either:
  - (A) Upon permit renewal, or, if warranted;
  - (B) By modifying the permit under part (9)(c)3 or part (9)(c)5 of this rule.

(III) CAA Option.

Under this option:

- I. The owner or operator must document that the startup, shutdown, and malfunction plan required under 40 ~~CFR~~ C.F.R. § 63.1206(c)(2) or equivalent state analog has been approved by the Commissioner under 40 ~~CFR~~ C.F.R. § 63.1206(c)(2)(ii)(B) or equivalent state analog; and
- II. The Commissioner will omit from the permit conditions that are not applicable under part (15)(a)2 of Rule 0400-12-01-.06 and part (8)(a)2 of Rule 0400-12-01-.09.

2. Interim status facilities.

(i) Interim status operations.

- (I) In compliance with subparagraph (15)(a) of Rule 0400-12-01-.05 and part (8)(a)2 of Rule 0400-12-01-.09, the owner or operator of an incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace that is operating under the interim status standards of Rule 0400-12-01-.05 or 0400-12-01-.09 may control emissions of toxic compounds during startup, shutdown, and malfunction events under either of the following options after conducting a

comprehensive performance test and submitting to the Commissioner a Notification of Compliance documenting compliance with the standards of 40 [CFR C.F.R.](#) 63 Subpart EEE [or equivalent state analog](#):

(II) RCRA Option<sub>2</sub>

Under this option, the owner or operator continues to comply with the interim status emission standards and operating requirements of Rule 0400-12-01-.05 or Rule 0400-12-01-.09 relevant to control of emission from startup, shutdown, and malfunction events. Those standards and requirements apply only during startup, shutdown, and malfunction events; or

(III) CAA Option<sub>2</sub>

Under this option, the owner or operator is exempt from the interim status standards of Rule 0400-12-01-.05 or Rule 0400-12-01-.09 relevant to control of emissions of toxic compounds during startup, shutdown, and malfunction events upon submission of written notification and documentation to the ~~Director~~ [Commissioner](#) that the startup, shutdown, and malfunction plan required under 40 [CFR C.F.R. § 63.1206\(c\)\(2\)](#) [or equivalent state analog](#) has been approved by the Commissioner under 40 [CFR C.F.R. § 63.1206\(c\)\(2\)\(ii\)\(B\)](#) [or equivalent state analog](#).

(ii) Operations under a subsequent RCRA permit<sub>2</sub>

When an owner or operator of an incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace that is operating under the interim status standards of Rule 0400-12-01-.05 or Rule 0400-12-01-.09 submits a RCRA permit application, the owner or operator may request that the Commissioner control emissions from startup, shutdown, and malfunction events under any of the options provided by item 1(ii)(I), (II), or (III) of this subparagraph.

3. New units<sub>2</sub>

Hazardous waste incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace units that become subject to RCRA permit requirements after October 12, 2005 must control emissions of toxic compounds during startup, shutdown, and malfunction events under either of the following options:

(i) Comply with the requirements specified in 40 [CFR C.F.R. § 63.1206\(c\)\(2\)](#) [or equivalent state analog](#); or

(ii) Request to include in the RCRA permit, conditions that ensure emissions of toxic compounds are minimized from startup, shutdown, and malfunction events, including releases from emergency safety vents, based on review of information including the source's startup, shutdown, and malfunction plan and design. The Commissioner will specify that these permit conditions apply only when the facility is operating under its startup, shutdown, and malfunction plan.

[\(b\) Reserved.](#)

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

Part 2 of subparagraph (a) of paragraph (8) of Rule 0400-12-01-.09 Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities is amended by deleting it in its entirety and substituting instead the following:

2. Integration of the MACT standards

- (i) Except as provided by subparts (ii), (iii), and (iv) of this part, the standards of this rule do not apply to a new hazardous waste boiler or industrial furnace unit that becomes subject to RCRA permit requirements after October 12, 2005; or no longer apply when an owner or operator of an existing hazardous waste boiler or industrial furnace unit demonstrates compliance with the maximum achievable control technology (MACT) requirements of 40 ~~CFR C.F.R.~~ 63 Subpart EEE or equivalent state analog by conducting a comprehensive performance test and submitting to the Administrator and the Commissioner a Notification of Compliance under 40 ~~CFR C.F.R.~~ §§ 63.1207(j) and 63.1210(d) or under equivalent state analogs documenting compliance with the requirements of 40 ~~CFR C.F.R.~~ 63 Subpart EEE or an equivalent state analog. Nevertheless, even after this demonstration of compliance with the MACT standards, RCRA permit conditions that were based on the standards of this rule will continue to be in effect until they are removed from the permit or the permit is terminated or revoked unless the permit expressly provides otherwise.
- (ii) The following standards continue to apply:
  - (I) If you elect to comply with item (12)(a)1(i)(I) of Rule 0400-12-01-.07 to minimize emissions of toxic compounds from startup, shutdown, and malfunction events, subpart (c)5(i) of this paragraph requiring operations in accordance with the operating requirements specified in the permit at all times that hazardous waste is in the unit, and item (c)5(ii)(III) of this subparagraph requiring compliance with the emission standards and operating requirements during startup and shutdown if hazardous waste is in the combustion chamber, except for particular hazardous wastes. These provisions apply only during startup, shutdown, and malfunction events;
  - (II) The closure requirements of subpart (c)5(xi) and part (d)12 of this paragraph;
  - (III) The standards for direct transfer of subparagraph (l) of this paragraph;
  - (IV) The standards for regulation of residues of subparagraph (m) of this paragraph; and
  - (V) The applicable requirements of paragraphs (1) through (8), (28), and (29) of Rule 0400-12-01-.05 and paragraphs (1) through (8), (31), and (32) of Rule 0400-12-01-.06.
- (iii) If you own or operate a boiler or hydrochloric acid production furnace that is an area source under 40 ~~CFR C.F.R.~~ § 63.2 or equivalent state analog and you elect not to comply with the emission standards under 40 ~~CFR C.F.R.~~ §§ 63.1216, 63.1217, and 63.1218 or equivalent state analogs for particulate matter, semivolatile and low volatile metals, and total chlorine, you also remain subject to:
  - (I) Subparagraph (f) of this paragraph--Standards to control particulate matter;
  - (II) Subparagraph (g) of this paragraph--Standards to control metals emissions, except for mercury; and
  - (III) Subparagraph (h) of this paragraph--Standards to control hydrogen chloride and chlorine gas.
- (iv) The particulate matter standard of subparagraph (f) of this paragraph remains in effect for boilers that elect to comply with the alternative to the particulate matter standard under 40 ~~CFR C.F.R.~~ §§ 63.1216(e) and 63.1217(e) or equivalent state analogs.

Table 1.-ALTERNATIVE TREATMENT STANDARDS FOR HAZARDOUS DEBRIS immediately following subpart (v) of part 4 of subparagraph (f) of paragraph (3) of Rule 0400-12-01-.10 Land Disposal Restrictions is amended by deleting it in its entirety as substituting instead the following:

<sup>a</sup>TABLE 1.-ALTERNATIVE TREATMENT STANDARDS FOR HAZARDOUS DEBRIS<sup>1</sup>

Technology Description	Performance and/or Design and Operating Standard	Contaminant Restrictions <sup>2</sup>
<p>A. Extraction Technologies:</p> <p>1. Physical Extraction</p> <p>a. Abrasive Blasting: Removal of contaminated debris surface layers using water and/or air pressure to propel a solid media (e.g., steel shot, aluminum oxide grit, plastic beads).</p> <p>b. Scarification, Grinding, and Planing: Process utilizing striking piston heads, saws, or rotating grinding wheels such that contaminated debris surface layers are removed.</p> <p>c. Spalling: Drilling or chipping holes at appropriate locations and depth in the contaminated debris surface and applying a tool which exerts a force on the sides of those holes such that the surface layer is removed. The surface layer removed remains hazardous debris subject to the debris treatment standards.</p> <p>d. Vibratory Finishing: Process utilizing scrubbing media, flushing fluid, and oscillating energy such that hazardous contaminants or contaminated debris surface layers are removed.<sup>4</sup></p> <p>e. High Pressure Steam and Water Sprays: Application of water or steam sprays of sufficient temperature, pressure, residence time, agitation, surfactants, and detergents to remove hazardous contaminants from debris surfaces or to remove contaminated debris surface layers.</p>	<p>Glass, Metal, Plastic, Rubber: Treatment to a clean debris surface.<sup>3</sup></p> <p>Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Removal of at least 0.6 cm of the surface layer; treatment to a clean debris surface.<sup>3</sup></p> <p>Same as above.</p> <p>Same as above.</p> <p>Same as above.</p> <p>Same as above.</p> <p>Same as above.</p>	<p>All Debris: None.</p> <p>Same as above.</p> <p>Same as above.</p> <p>Same as above.</p> <p>Same as above.</p> <p>Same as above.</p>



## 2. Chemical Extraction

a. Water Washing and Spraying: Application of water sprays or water baths of sufficient temperature, pressure, residence time, agitation, surfactants, acids, bases, and detergents to remove hazardous contaminants from debris surfaces and surface pores or to remove contaminated debris surface layers.

b. Liquid Phase Solvent Extraction: Removal of hazardous contaminants from debris surfaces and surface pores by applying a nonaqueous liquid or liquid solution which causes the hazardous contaminants to enter the liquid phase and be flushed away from the debris along with the liquid or liquid solution while using appropriate agitation, temperature, and residence time.<sup>4</sup>

c. Vapor Phase Solvent Extraction: Application of an organic vapor using sufficient agitation, residence time, and temperature to cause hazardous contaminants on contaminated debris surfaces and surface pores to enter the vapor phase and be flushed away with the organic vapor.<sup>4</sup>

## 3. Thermal Extraction

a. High Temperature Metals Recovery: Application of sufficient heat, residence time, mixing, fluxing agents, and/or carbon in a smelting, melting, or refining furnace to separate metals from debris.

b. Thermal Desorption: Heating in an enclosed chamber under either oxidizing or nonoxidizing atmospheres at sufficient temperature and residence time to vaporize hazardous contaminants from

All Debris: Treatment to a clean debris surface<sup>3</sup>;

Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Debris must be no more than 1.2 cm (1/2 inch) in one dimension (i.e., thickness limit,<sup>5</sup> except that this thickness limit may be waived under an "Equivalent Technology" approval under [part \(3\)\(c\)2 of Rule 0400-12-01-10\(3\)\(e\)2](#)<sup>8</sup>; debris surfaces must be in contact with water solution for at least 15 minutes

Same as above.

Same as above, except that brick, cloth, concrete, paper, pavement, rock and wood surfaces must be in contact with the organic vapor for at least 60 minutes.

For refining furnaces, treated debris must be separated from treatment residuals using simple physical or mechanical means,<sup>9</sup> and, prior to further treatment, such residuals must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris.

All Debris: Obtain an "Equivalent Technology" approval under [part \(3\)\(c\)2 of Rule 0400-12-01-10\(3\)\(e\)2](#)<sup>8</sup>; treated debris must be separated from treatment residuals using simple physical

Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Contaminant must be soluble to at least 5% by weight in water solution or 5% by weight in emulsion; if debris is contaminated with a dioxin-listed waste,<sup>6</sup> an "Equivalent Technology" approval under [part \(3\)\(c\)2 of Rule 0400-12-01-10\(3\)\(e\)2](#)<sup>8</sup> must be obtained.<sup>8</sup>

Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Same as above, except that contaminant must be soluble to at least 5% by weight in the solvent.

Same as above.

Debris contaminated with a dioxin-listed waste:<sup>5</sup> Obtain an "Equivalent Technology" approval under [part \(3\)\(c\)2 of Rule 0400-12-01-10\(3\)\(e\)2](#)<sup>8</sup>

All Debris: Metals other than mercury.

contaminated surfaces and surface pores and to remove the contaminants from the heating chamber in a gaseous exhaust gas.<sup>7</sup>

or mechanical means,<sup>9</sup> and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris.

Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Debris must be no more than 10 cm (4 inches) in one dimension (i.e., thickness limit),<sup>5</sup> except that this thickness limit may be waived under the "Equivalent Technology" approval

## B. Destruction Technologies:

1. Biological Destruction (Biodegradation): Removal of hazardous contaminants from debris surfaces and surface pores in an aqueous solution and ~~biodegration~~ biodegradation of organic or nonmetallic inorganic compounds (i.e., inorganics that contain phosphorus, nitrogen, or sulfur) in units operated under either aerobic or anaerobic conditions.

All Debris: Obtain an "Equivalent Technology" approval under part (3)(c)2 of Rule 0400-12-01-.10(3)(e)2;<sup>8</sup> treated debris must be separated from treatment residuals using simple physical or mechanical means,<sup>9</sup> and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris.

All Debris: Metal contaminants.

Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Debris must be no more than 1.2 cm (1/2 inch) in one dimension (i.e., thickness limit),<sup>5</sup> except that this thickness limit may be waived under the "Equivalent Technology" approval

## 2. Chemical Destruction

a. Chemical Oxidation: Chemical or electrolytic oxidation utilizing the following oxidation reagents (or waste reagents) or combination of reagents-(1) hypochlorite (e.g., bleach); (2) chlorine; (3) chlorine dioxide; (4) ozone or UV (ultraviolet light) assisted ozone; (5) peroxides; (6) persulfates; (7) perchlorates; (8) permanganates; and/or (9) other oxidizing reagents of equivalent destruction efficiency.<sup>4</sup> Chemical oxidation specifically includes what is referred to as alkaline chlorination.

All Debris: Obtain an "Equivalent Technology" approval under part (3)(c)2 of Rule 0400-12-01-.10(3)(e)2;<sup>8</sup> treated debris must be separated from treatment residuals using simple physical or mechanical means,<sup>9</sup> and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris.

All Debris: Metal contaminants.

Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Debris must be no more than 1.2 cm (1/2 inch) in one dimension (i.e., thickness limit),<sup>5</sup> except that this

<p>b. Chemical Reduction: Chemical reaction utilizing the following reducing reagents (or waste reagents) or combination of reagents: (1) sulfur dioxide; (2) sodium, potassium, or alkali salts of sulfites, bisulfites, and metabisulfites, and polyethylene glycols (e.g., NaPEG and KPEG); (3) sodium hydrosulfide; (4) ferrous salts; and/or (5) other reducing reagents of equivalent efficiency.<sup>4</sup></p>	<p>thickness limit may be waived under the "Equivalent Technology" approval</p> <p>Same as above.</p>	<p>Same as above.</p>
<p>3. Thermal Destruction: Treatment in an incinerator operating in accordance with <a href="#">paragraph (15 of Rule 0400-12-01-.05(15))</a> or <a href="#">paragraph (15) of Rule 0400-12-01-.06(15))</a>, a boiler or industrial furnace operating in accordance with <a href="#">paragraph (8) of Rule 0400-12-01-.09(8))</a>, or other thermal treatment unit operated in accordance with <a href="#">paragraph (27) of Rule 0400-12-01-.06(27))</a> or <a href="#">paragraph (16) of Rule 0400-12-01-.05(16))</a>, but excluding for purposes of these debris treatment standards Thermal Desorption units.</p>	<p>Treated debris must be separated from treatment residuals using simple physical or mechanical means,<sup>9</sup> and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris.</p>	<p>Brick, Concrete, Glass, Metal, Pavement, Rock, Metal: Metals other than mercury, except that there are no metal restrictions for vitrification. Debris contaminated with a dioxin-listed waste.<sup>6</sup> Obtain an "Equivalent Technology" approval under <a href="#">subparagraph (3)(c) of Rule 0400-12-01-.10(3)(c))</a>,<sup>8</sup> except that this requirement does not apply to vitrification.</p>
<p>C. Immobilization Technologies:</p> <p>1. Macroencapsulation: Application of surface coating materials such as polymeric organics (e.g., resins and plastics) or use of a jacket of inert inorganic materials to substantially reduce surface exposure to potential leaching media.</p> <p>2. Microencapsulation: Stabilization of the debris with the following reagents (or waste reagents) such that the leachability of the hazardous contaminants is reduced: (1) Portland cement; or (2) lime/pozzolans (e.g., fly ash and cement kiln dust). Reagents (e.g., iron salts, silicates, and clays) may be added to enhance the set/cure time and/or compressive strength, or</p>	<p>Encapsulating material must completely encapsulate debris and be resistant to degradation by the debris and its contaminants and materials into which it may come into contact after placement (leachate, other waste, microbes).</p> <p>Leachability of the hazardous contaminants must be reduced.</p>	<p>None.</p> <p>None.</p>

to reduce the leachability of the hazardous constituents. <sup>5</sup>	Sealing must avoid exposure of the debris surface to potential leaching media and sealant must be resistant to degradation by the debris and its contaminants and materials into which it may come into contact after placement (leachate, other waste, microbes).	None.
3. Sealing: Application of an appropriate material which adheres tightly to the debris surface to avoid exposure of the surface to potential leaching media. When necessary to effectively seal the surface, sealing entails pretreatment of the debris surface to remove foreign matter and to clean and roughen the surface. Sealing materials include epoxy, silicone, and urethane compounds, but paint may not be used as a sealant		

~~FOOTNOTE:<sup>a</sup> All rule citations contained herein are from Chapter 0400-12-01.~~

FOOTNOTE:<sup>1</sup> Hazardous debris must be treated by either these standards or the waste-specific treatment standards for the waste contaminating the debris. The treatment standards must be met for each type of debris contained in a mixture of debris types, unless the debris is converted into treatment residue as a result of the treatment process. Debris treatment residuals are subject to the waste-specific treatment standards for the waste contaminating the debris.

FOOTNOTE:<sup>2</sup> Contaminant restriction means that the technology is not BDAT for that contaminant. If debris containing a restricted contaminant is treated by the technology, the contaminant must be subsequently treated by a technology for which it is not restricted in order to be land disposed (and excluded from Subtitle C regulation).

FOOTNOTE:<sup>3</sup> "Clean debris surface" means the surface, when viewed without magnification, shall be free of all visible contaminated soil and hazardous waste except that residual staining from soil and waste consisting of light shadows, slight streaks, or minor discolorations, and soil and waste in cracks, crevices, and pits may be present provided that such staining and waste and soil in cracks, crevices, and pits shall be limited to no more than 5% of each square inch of surface area.

FOOTNOTE:<sup>4</sup> Acids, solvents, and chemical reagents may react with some debris and contaminants to form hazardous compounds. For example, acid washing of cyanide-contaminated debris could result in the formation of hydrogen cyanide. Some acids may also react violently with some debris and contaminants, depending on the concentration of the acid and the type of debris and contaminants. Debris treaters should refer to the safety precautions specified in Material Safety Data Sheets for various acids to avoid applying an incompatible acid to a particular debris/contaminant combination. For example, concentrated sulfuric acid may react violently with certain organic compounds, such as acrylonitrile.

FOOTNOTE:<sup>5</sup> If reducing the particle size of debris to meet the treatment standards results in material that no longer meets the 60 mm minimum particle size limit for debris, such material is subject to the waste-specific treatment standards for the waste contaminating the material, unless the debris has been cleaned and separated from contaminated soil and waste prior to size reduction. At a minimum, simple physical or mechanical means must be used to provide such cleaning and separation of nondebris materials to ensure that the debris surface is free of caked soil, waste, or other nondebris material.

FOOTNOTE:<sup>6</sup> Dioxin-listed wastes are EPA Hazardous Waste numbers F020, F021, F022, F023, F026, and F027.

FOOTNOTE:<sup>7</sup> Thermal desorption is distinguished from Thermal Destruction in that the primary purpose of Thermal Desorption is to volatilize contaminants and to remove them from the treatment chamber for subsequent destruction or other treatment.

FOOTNOTE:<sup>8</sup> The demonstration "Equivalent Technology" under part (c)2 of this paragraph must document that the technology treats contaminants subject to treatment to a level equivalent to that required by the performance and design and operating standards for other technologies in this table such that residual levels of hazardous contaminants will not pose a hazard to human health and the environment absent management controls.

FOOTNOTE:<sup>9</sup> Any soil, waste, and other nondebris material that remains on the debris surface (or remains mixed with the debris) after treatment is considered a treatment residual that must be separated from the debris using, at a minimum, simple physical or mechanical means. Examples of simple physical or mechanical means are vibratory or trommel screening or water washing. The debris surface need not be cleaned to a "clean debris surface" as defined in note 3 when separating treated debris from residue; rather, the surface must be free of caked soil, waste, or other nondebris material. Treatment residuals are subject to the waste-specific treatment standards for the waste contaminating the debris.

Authority: T.C.A. §§ 68-212-101 et seq. and 4-5-201 et seq.

I certify that the information included in this filing is an accurate and complete representation of the intent and scope of rulemaking proposed by the agency.

Date: December 9, 2022

Signature: \_\_\_\_\_

Name of Officer: Lisa A. Hughey

Title of Officer: Director of the Division of Solid Waste Management

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Filed with the Department of State on: \_\_\_\_\_

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Tre Hargett  
Secretary of State