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Sequence Number: 03-10-15  
 Notice ID(s): 2309  
 File Date: 3-16-15

# 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>	Environment and Conservation
<b>Division:</b>	Solid Waste Management
<b>Contact Person:</b>	David Moran
<b>Address:</b>	William R. Snodgrass Tn Tower 312 Rosa L. Parks Avenue, 14 <sup>th</sup> Floor Nashville, Tennessee 37243
<b>Phone:</b>	(615) 532-0875
<b>Email:</b>	David.Moran@tn.gov

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 Tn Tower 312 Rosa L. Parks Avenue, 2 <sup>nd</sup> 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 at 1-800-848-0298.
<b>Email:</b>	Beverly.Evans@tn.gov

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

Address 1:	Conference Room M, 3rd Floor		
Address 2:	William R. Snodgrass Tennessee Tower 312 Rosa L. Parks Avenue		
City:	Nashville, Tennessee		
Zip:	37243		
Hearing Date :	05/19/15		
Hearing Time:	9:00 a.m.	<input checked="" type="checkbox"/> CST/CDT	<input type="checkbox"/> EST/EDT

**Additional Hearing Information:**

This rulemaking is designed to:

- Correct a typographical error to the process description to K107
- Add a common chemical name 1,1,1-Trichloroethane to the U226 list of commercial chemical products. This is not a new listing.
- Update the regulatory language regarding the exclusion of comparable fuel and syngas fuel to be equivalent with EPA's language.
- Correct the introductory statements Rule 0400-12-01-.10(1)(g)2(iv) so that it reads like the federal language and to add a sentence to the certification statements to reference T.C.A. § 39-16-702(a)(4).
- For the Waste code K161 of the Table "Treatment Standards for Hazardous Wastes" in Rule 0400-12-01-.10, delete the CAS number "137-30-4" in the third column to the right of "Dithiocarbamates (total) 10" and replacing it with "NA" so that it is consistent with the federal language.

An initial set of draft rules has been prepared for public review and comment. Copies of these initial draft rules are available for review at the Tennessee Department of Environment and Conservation's (TDEC's) Environmental Field Offices located as follows:

Memphis Environmental Field Office  
8383 Wolfe Lake Drive  
Bartlett, TN 38133  
(901) 371-3000/ (901) 371-3170

Cookeville Environmental Field Office  
1221 South Willow Avenue  
Cookeville, TN 38506  
(931) 432-4015/ 1-888-891-8332

Jackson Environmental Field Office  
1625 Hollywood Drive  
Jackson, TN 38305  
(731) 512-1300/1-888-891-8332

Chattanooga Environmental Field Office  
1301 Riverfront Parkway  
Suite 206  
Chattanooga, TN 37402  
(423) 634-5745/1-888-891-8332

Columbia Environmental Field Office  
1421 Hampshire Pike  
Columbia, TN 38401  
(931) 380-3371/ 1-888-891-8332

Knoxville Environmental Field Office  
3711 Middlebrook Pike  
Knoxville, TN 37921-5602  
(865) 594-6035/1-888-891-8332

Nashville Environmental Field Office  
711 R. S. Gass Blvd.  
Nashville, TN 37216  
(615) 687-7000/1-888-891-8332

Johnson City Environmental Field Office  
2305 Silverdale Road  
Johnson City, TN 37601-2162  
(423) 854-5400/1-888-891-8332

The "DRAFT" rules may also be accessed for review using at <http://tn.gov/environment/ppo/#swm>.

Draft copies are also available for review at the Nashville Central Office (see address below).

Tennessee Department of Environment and Conservation  
Division of Solid Waste Management  
William R. Snodgrass Tn Tower  
312 Rosa L. Parks Avenue, 14<sup>th</sup> Floor  
Nashville, Tennessee 37243  
(615) 532-0780

Office hours are from 8:00 AM to 4:30 PM, Monday through Friday (excluding holidays).

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: David Moran, William R. Snodgrass Tn Tower, 312 Rosa L. Parks Avenue, 14<sup>th</sup> Floor, Nashville, Tennessee 37243; telephone 615-532-0875 or fax 615-532-0886. However, such written comments must be received by 4:30 PM CST, May 19, 2015, in order to assure consideration. For further information, please contact David Moran at the above address or telephone number or by e-mail at [David.Moran@tn.gov](mailto:David.Moran@tn.gov).

**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.)

<b>Chapter Number</b>	<b>Chapter Title</b>
0400-12-01	Hazardous Waste Management
<b>Rule Number</b>	<b>Rule Title</b>
0400-12-01-.02	Identification and Listing 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-.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 <http://state.tn.us/sos/rules/1360/1360.htm>)

Amendments

Chapter 0400-12-01  
Hazardous Waste Management

Part 1 of subparagraph (c) of paragraph (4) 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. The following solid wastes are listed hazardous wastes from specific sources unless they are excluded under subparagraphs (a) and (c) of Rule 0400-12-01-.01(3) and listed in paragraph (5) Appendix IX of this rule.

Industry and Hazardous Waste Code	Hazardous Waste	Hazard Code
Wood preservation: K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.	(T)
Inorganic pigments: K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.	(T)
K003	Wastewater treatment sludge from the production of molybdate orange pigments.	(T)
K004	Wastewater treatment sludge from the production of zinc yellow pigments.	(T)
K005	Wastewater treatment sludge from the production of chrome green pigments.	(T)
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated).	(T)
K007	Wastewater treatment sludge from the production of iron blue pigments.	(T)
K008	Oven residue from the production of chrome oxide green pigments.	(T)
Organic chemicals: K009	Distillation bottoms from the production of acetaldehyde from ethylene.	(T)
K010	Distillation side cuts from the production of acetaldehyde from ethylene.	(T)
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile.	(R, T)
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile.	(R, T)
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile.	(T)

K015	Still bottoms from the distillation of benzyl chloride.	(T)
K016	Heavy ends or distillation residues from the production of carbon tetrachloride.	(T)
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.	(T)
K018	Heavy ends from the fractionation column in ethyl chloride production.	(T)
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.	(T)
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.	(T)
K021	Aqueous spent antimony catalyst waste from fluoromethanes production.	(T)
K022	Distillation bottom taré from the production of phenol/acetone from cumene.	(T)
K023	Distillation light ends from the production of phthalic anhydride from naphthalene.	(T)
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.	(T)
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.	(T)
K026	Stripping still tails from the production of methyl ethyl pyridines.	(T)
K027	Centrifuge and distillation residues from toluene diisocyanate production.	(R, T)
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.	(T)
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane.	(T)
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene.	(T)
K083	Distillation bottoms from aniline production.	(T)
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes.	(T)
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene.	(T)
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.	(T)
K095	Distillation bottoms from the production of 1,1,1-trichloroethane.	(T)
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.	(T)
K103	Process residues from aniline extraction from the production of aniline.	(T)
K104	Combined wastewater streams generated from nitrobenzene/aniline production.	(T)
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	(T)

K107	Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(C,T)
K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(I,T)
K109	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(T)
K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	(T)
K111	Product washwaters from the production of dinitrotoluene via nitration of toluene.	(C,T)
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	(T)
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.	(T)
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.	(T)
K118	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	(T)
K149	Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups, (This waste does not include still bottoms from the distillation of benzyl chloride.).	(T)
K150	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	(T)
K151	Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha-(or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	(T)
K156	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	(T)

K157	Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	(T)
K158	Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	(T)
K159	Organics from the treatment of thiocarbamate wastes	(T)
K161	Purification solids (including filtration, evaporation, and centrifugation solids), bag house dust and floor sweepings from the production of dithiocarbamate acids and their salts. (This listing does not include K125 or K126.)	(R,T)
K174	Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer (including sludges that result from commingled ethylene dichloride or vinyl chloride monomer wastewater and other wastewater), unless the sludges meet the following conditions: (i) they are disposed of in a Subtitle C or non-hazardous landfill licensed or permitted by the state or federal government; (ii) they are not otherwise placed on the land prior to final disposal; and (iii) the generator maintains documentation demonstrating that the waste was either disposed of in an on-site landfill or consigned to a transporter or disposal facility that provided a written commitment to dispose of the waste in an off-site landfill. Respondents in any action brought to enforce the requirements of Subtitle C must, upon a showing by the government that the respondent managed wastewater treatment sludges from the production of vinyl chloride monomer or ethylene dichloride, demonstrate that they meet the terms of the exclusion set forth above. In doing so, they must provide appropriate documentation (e.g., contracts between the generator and the landfill owner/operator, invoices documenting delivery of waste to landfill, etc.) that the terms of the exclusion were met.	(T)
K175	Wastewater treatment sludges from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process.	(T)

K181	Nonwastewaters from the production of dyes and/or pigments (including nonwastewaters commingled at the point of generation with nonwastewaters from other processes) that, at the point of generation, contain mass loadings of any of the constituents identified in part 3 of this subparagraph that are equal to or greater than the corresponding part 3 levels, as determined on a calendar year basis. These wastes will not be hazardous if the nonwastewaters are: (i) disposed in a Subtitle D landfill unit subject to the design criteria in 40 CFR 258.40, (ii) disposed in a Subtitle C landfill unit subject to either Rule 0400-12-01-.06(14)(b) or Rule 0400-12-01-.05(14)(b); (iii) disposed in other Subtitle D landfill units that meet the design criteria in 40 CFR 258.40, Rule 0400-12-01-.06(14)(b), or Rule 0400-12-01-.05(14)(b); or (iv) treated in a combustion unit that is permitted under Subtitle C, or an onsite combustion unit that is permitted under the Clean Air Act. For the purposes of this listing, dyes and/or pigments production is defined in subpart 2(i) of this subparagraph. Part 4 of this subparagraph describes the process for demonstrating that a facility's nonwastewaters are not K181. This listing does not apply to wastes that are otherwise identified as hazardous under subparagraphs (b) through (e) of paragraph (3) of this rule and subparagraphs (b) through (d) of paragraph (4) of this rule at the point of generation. Also, the listing does not apply to wastes generated before any annual mass loading limit is met.	(T)
Inorganic chemicals:		
K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.	(T)
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.	(T)
K106	Wastewater treatment sludge from the mercury cell process in chlorine production.	(T)
K176	Baghouse filters from the production of antimony oxide, including filters from the production of intermediates (e. g., antimony metal or crude antimony oxide).	(E)
K177	Slag from the production of antimony oxide that is speculatively accumulated or disposed, including slag from the production of intermediates (e. g., antimony metal or crude antimony oxide).	(T)
K178	Residues from manufacturing and manufacturing-site storage of ferric chloride from acids formed during the production of titanium dioxide using the chloride-ilmenite process.	(T)
Pesticides:		
K031	By-product salts generated in the production of MSMA and cacodylic acid.	(T)
K032	Wastewater treatment sludge from the production of chlordane.	(T)
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.	(T)
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.	(T)
K035	Wastewater treatment sludges generated in the production of creosote.	(T)

K036	Still bottoms from toluene reclamation distillation in the production of disulfoton.	(T)
K037	Wastewater treatment sludges from the production of disulfoton.	(T)
K038	Wastewater from the washing and stripping of phorate production.	(T)
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate.	(T)
K040	Wastewater treatment sludge from the production of phorate.	(T)
K041	Wastewater treatment sludge from the production of toxaphene.	(T)
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.	(T)
K043	2,6-Dichlorophenol waste from the production of 2,4-D.	(T)
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.	(T)
K098	Untreated process wastewater from the production of toxaphene.	(T)
K099	Untreated wastewater from the production of 2,4-D.	(T)
K123	Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salt.	(T)
K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.	(C, T)
K125	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts.	(T)
K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts.	(T)
K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide.	(C,T)
K132	Spent absorbent and wastewater separator solids from the production of methyl bromide.	(T)
<b>Explosives:</b>		
K044	Wastewater treatment sludges from the manufacturing and processing of explosives.	(R)
K045	Spent carbon from the treatment of wastewater containing explosives.	(R)
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.	(T)
K047	Pink/red water from TNT operations.	(R)
<b>Petroleum refining:</b>		
K048	Dissolved air flotation (DAF) float from the petroleum refining industry.	(T)
K049	Slop oil emulsion solids from the petroleum refining industry.	(T)
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.	(T)
K051	API separator sludge from the petroleum refining industry.	(T)
K052	Tank bottoms (leaded) from the petroleum refining industry.	(T)

K169	Crude oil storage tank sediment from petroleum refining operations.	(T)
K170	Clarified slurry oil tank sediment and/or in-line filter/separation solids from petroleum refining operations.	(T)
K171	Spent Hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media).	(I,T)
K172	Spent Hydrorefining catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media).	(I,T)
Iron and steel:		
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.	(T)
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332).	(C,T)
Primary aluminum:		
K088	Spent potliners from primary aluminum reduction.	(T)
Secondary lead:		
K069	Emission control dust/sludge from secondary lead smelting. (Note: This listing is stayed administratively for sludge generated from secondary acid scrubber systems. The stay will remain in effect until further administrative action is taken. If EPA takes further action effecting this stay, EPA will publish a notice of the action in the Federal Register).	(T)
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.	(T)
Veterinary pharmaceuticals:		
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	(T)
Ink formulation:		
K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.	(T)

Coking:		
K060	Ammonia still lime sludge from coking operations.	(T)
K087	Decanter tank tar sludge from coking operations.	(T)
K141	Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank tar sludges from coking operations).	(T)
K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal.	(T)
K143	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal.	(T)
K144	Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal.	(T)
K145	Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal.	(T)
K147	Tar storage tank residues from coal tar refining.	(T)
K148	Residues from coal tar distillation, including but not limited to, still bottoms.	(T)

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

Part 6 of subparagraph (d) of paragraph (4) 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 commercial chemical products, manufacturing chemical intermediates, or off-specification commercial chemical products referred to in parts 1 through 4 of this subparagraph, are identified as toxic wastes (T), unless otherwise designated and are subject to the small quantity generator exclusion defined in parts (1)(e) 1 and 7 of this rule.

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

These wastes and their corresponding Hazardous Waste Codes are:

Hazardous Waste No.	Chemical Abstracts No.	Substance
U394	30558-43-1	A2213.
U001	75-07-0	Acetaldehyde (I)
U034	75-87-6	Acetaldehyde, trichloro-
U187	62-44-2	Acetamide, N-(4-ethoxyphenyl)-
U005	53-96-3	Acetamide, N-9H-fluoren-2-yl-
U240	'94-75-7	Acetic acid, (2,4-dichlorophenoxy)-, salts & esters

U112	141-78-6	Acetic acid, ethyl ester (I)
U144	301-04-2	Acetic acid, lead(2+) salt
U214	563-68-8	Acetic acid, thallium(1+) salt
see F027	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
U002	67-64-1	Acetone (I)
U003	75-05-8	Acetonitrile (I,T)
U004	98-86-2	Acetophenone
U005	53-96-3	2-Acetylamino fluorene
U006	75-36-5	Acetyl chloride (C,R,T)
U007	79-06-1	Acrylamide
U008	79-10-7	Acrylic acid (I)
U009	107-13-1	Acrylonitrile
U011	61-82-5	Amitrole
U012	62-53-3	Aniline (I,T)
U136	75-60-5	Arsinic acid, dimethyl-
U014	492-80-8	Auramine
U015	115-02-6	Azaserine
U010	50-07-7	Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-8-[[[(aminocarbonyl)oxy]methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha, 8beta,8aalpha,8balpha)]-
U280	101-27-9	Barban.
U278	22781-23-3	Bendiocarb.
U364	22961-82-6	Bendiocarb phenol.
U271	17804-35-2	Benomyl.
U157	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-
U016	225-51-4	Benz[c]acridine
U017	98-87-3	Benzal chloride
U192	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-
U018	56-55-3	Benz[a]anthracene
U094	57-97-6	Benz[a]anthracene, 7,12-dimethyl-
U012	62-53-3	Benzenamine (I,T)
U014	492-80-8	Benzenamine, 4,4'-carbonimidoylbis[N,N-dimethyl-
U049	3165-93-3	Benzenamine, 4-chloro-2-methyl-, hydrochloride
U093	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
U328	95-53-4	Benzenamine, 2-methyl-
U353	106-49-0	Benzenamine, 4-methyl-
U158	101-14-4	Benzenamine, 4,4'-methylenebis[2-chloro-
U222	636-21-5	Benzenamine, 2-methyl-, hydrochloride

U181	99-55-8	Benzenamine, 2-methyl-5-nitro-
U019	71-43-2	Benzene (I,T)
U038	510-15-6	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester
U030	101-55-3	Benzene, 1-bromo-4-phenoxy-
U035	305-03-3	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-
U037	108-90-7	Benzene, chloro-
U221	25376-45-8	Benzenediamine, ar-methyl-
U028	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
U069	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
U088	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester
U102	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
U107	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
U070	95-50-1	Benzene, 1,2-dichloro-
U071	541-73-1	Benzene, 1,3-dichloro-
U072	106-46-7	Benzene, 1,4-dichloro-
U060	72-54-8	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-
U017	98-87-3	Benzene, (dichloromethyl)-
U223	26471-62-5	Benzene, 1,3-diisocyanatomethyl- (R,T)
U239	1330-20-7	Benzene, dimethyl- (I)
U201	108-46-3	1,3-Benzenediol
U127	118-74-1	Benzene, hexachloro-
U056	110-82-7	Benzene, hexahydro- (I)
U220	108-88-3	Benzene, methyl-
U105	121-14-2	Benzene, 1-methyl-2,4-dinitro-
U106	606-20-2	Benzene, 2-methyl-1,3-dinitro-
U055	98-82-8	Benzene, (1-methylethyl)- (I)
U169	98-95-3	Benzene, nitro-
U183	608-93-5	Benzene, pentachloro-
U185	82-68-8	Benzene, pentachloronitro-
U020	98-09-9	Benzenesulfonic acid chloride (C,R)
U020	98-09-9	Benzenesulfonyl chloride (C,R)
U207	95-94-3	Benzene, 1,2,4,5-tetrachloro-
U061	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-
U247	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4- methoxy-
U023	98-07-7	Benzene, (trichloromethyl)-
U234	99-35-4	Benzene, 1,3,5-trinitro-
U021	92-87-5	Benzidine
U278	22781-23-3	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate.

U364	22961-82-6	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,
U203	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
U141	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
U090	94-58-6	1,3-Benzodioxole, 5-propyl-
U367	1563-38-8	7-Benzofuranol, 2,3-dihydro-2,2-dimethyl-
U064	189-55-9	Benzo[ <i>rst</i> ]pentaphene
U248	181-81-2	2H-1-Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations of 0.3% or less
U022	50-32-8	Benzo[ <i>a</i> ]pyrene
U197	106-51-4	<i>p</i> -Benzoquinone
U023	98-07-7	Benzotrichloride (C,R,T)
U085	1464-53-5	2,2'-Bioxirane
U021	92-87-5	[1,1'-Biphenyl]-4,4'-diamine
U073	91-94-1	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-
U091	119-90-4	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-
U095	119-93-7	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-
U225	75-25-2	Bromoform
U030	101-55-3	4-Bromophenyl phenyl ether
U128	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
U172	924-16-3	1-Butanamine, N-butyl-N-nitroso-
U031	71-36-3	1-Butanol (l)
U159	78-93-3	2-Butanone (l,T)
U160	1338-23-4	2-Butanone peroxide (R,T)
U053	4170-30-3	2-Butenal
U074	764-41-0	2-Butene, 1,4-dichloro- (l,T)
U143	303-34-4	2-Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy- 2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]- 2,3,5,7a-tetrahydro-1H-pyrrolizin-1-yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha]]-
U031	71-36-3	<i>n</i> -Butyl alcohol (l)
U136	75-60-5	Cacodylic acid
U032	13765-19-0	Calcium chromate
U372	10605-21-7	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester.
U271	17804-35-2	Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol-2-yl]-, methyl ester.
U280	101-27-9	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester.
U238	51-79-6	Carbamic acid, ethyl ester
U178	615-53-2	Carbamic acid, methylnitroso-, ethyl ester
U373	122-42-9	Carbamic acid, phenyl-, 1-methylethyl ester.
U409	23564-05-8	Carbamic acid, [1,2-phenylenebis (iminocarbonothioyl)]bis-, dimethyl ester.
U097	79-44-7	Carbamic chloride, dimethyl-

U114	1111-54-6	Carbamodithioic acid, 1,2-ethanediybis-, salts & esters
U062	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester
U389	2303-17-5	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester.
U387	52888-80-9	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester.
U279	63-25-2	Carbaryl.
U372	10605-21-7	Carbendazim.
U367	1563-38-8	Carbofuran phenol.
U215	6533-73-9	Carbonic acid, dithallium(1+) salt
U033	353-50-4	Carbonic difluoride
U156	79-22-1	Carbonochloridic acid, methyl ester (I,T)
U033	353-50-4	Carbon oxyfluoride (R,T)
U211	56-23-5	Carbon tetrachloride
U034	75-87-6	Chloral
U035	305-03-3	Chlorambucil
U036	57-74-9	Chlordane, alpha & gamma isomers
U026	494-03-1	Chlornaphazin
U037	108-90-7	Chlorobenzene
U038	510-15-6	Chlorobenzilate
U039	59-50-7	p-Chloro-m-cresol
U042	110-75-8	2-Chloroethyl vinyl ether
U044	67-66-3	Chloroform
U046	107-30-2	Chloromethyl methyl ether
U047	91-58-7	beta-Chloronaphthalene
U048	95-57-8	o-Chlorophenol
U049	3165-93-3	4-Chloro-o-toluidine, hydrochloride
U032	13765-19-0	Chromic acid H <sub>2</sub> CrO <sub>4</sub> , calcium salt
U050	218-01-9	Chrysene
U051		Creosote
U052	1319-77-3	Cresol (Cresylic acid)
U053	4170-30-3	Crotonaldehyde
U055	98-82-8	Cumene (I)
U246	506-68-3	Cyanogen bromide (CN)Br
U197	106-51-4	2,5-Cyclohexadiene-1,4-dione
U056	110-82-7	Cyclohexane (I)
U129	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-
U057	108-94-1	Cyclohexanone (I)
U130	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-
U058	50-18-0	Cyclophosphamide

U240	194-75-7	2,4-D, salts & esters
U059	20830-81-3	Daunomycin
U060	72-54-8	DDD
U061	50-29-3	DDT
U062	2303-16-4	Diallate
U063	53-70-3	Dibenz[a,h]anthracene
U064	189-55-9	Dibenzo[a,i]pyrene
U066	96-12-8	1,2-Dibromo-3-chloropropane
U069	84-74-2	Dibutyl phthalate
U070	95-50-1	o-Dichlorobenzene
U071	541-73-1	m-Dichlorobenzene
U072	106-46-7	p-Dichlorobenzene
U073	91-94-1	3,3'-Dichlorobenzidine
U074	764-41-0	1,4-Dichloro-2-butene (I,T)
U075	75-71-8	Dichlorodifluoromethane
U078	75-35-4	1,1-Dichloroethylene
U079	156-60-5	1,2-Dichloroethylene
U025	111-44-4	Dichloroethyl ether
U027	108-60-1	Dichloroisopropyl ether
U024	111-91-1	Dichloromethoxy ethane
U081	120-83-2	2,4-Dichlorophenol
U082	87-65-0	2,6-Dichlorophenol
U084	542-75-6	1,3-Dichloropropene
U085	1464-53-5	1,2:3,4-Diepoxybutane (I,T)
U395	5952-26-1	Diethylene glycol, dicarbamate.
U108	123-91-1	1,4-Diethyleneoxide
U028	117-81-7	Diethylhexyl phthalate
U086	1615-80-1	N,N'-Diethylhydrazine
U087	3288-58-2	O,O-Diethyl S-methyl dithiophosphate
U088	84-66-2	Diethyl phthalate
U089	56-53-1	Diethylstilbesterol
U090	94-58-6	Dihydrosafrole
U091	119-90-4	3,3'-Dimethoxybenzidine
U092	124-40-3	Dimethylamine (I)
U093	60-11-7	p-Dimethylaminoazobenzene
U094	57-97-6	7,12-Dimethylbenz[a]anthracene
U095	119-93-7	3,3'-Dimethylbenzidine
U096	80-15-9	alpha,alpha-Dimethylbenzylhydroperoxide (R)

U097	79-44-7	Dimethylcarbamoyl chloride
U098	57-14-7	1,1-Dimethylhydrazine
U099	540-73-8	1,2-Dimethylhydrazine
U101	105-67-9	2,4-Dimethylphenol
U102	131-11-3	Dimethyl phthalate
U103	77-78-1	Dimethyl sulfate
U105	121-14-2	2,4-Dinitrotoluene
U106	606-20-2	2,6-Dinitrotoluene
U107	117-84-0	Di-n-octyl phthalate
U108	123-91-1	1,4-Dioxane
U109	122-66-7	1,2-Diphenylhydrazine
U110	142-84-7	Dipropylamine (I)
U111	621-64-7	Di-n-propylnitrosamine
U041	106-89-8	Epichlorohydrin
U001	75-07-0	Ethanal (I)
U174	55-18-5	Ethanamine, N-ethyl-N-nitroso-
U404	121-44-8	Ethanamine, N,N-diethyl-
U155	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-
U067	106-93-4	Ethane, 1,2-dibromo-
U076	75-34-3	Ethane, 1,1-dichloro-
U077	107-06-2	Ethane, 1,2-dichloro-
U131	67-72-1	Ethane, hexachloro-
U024	111-91-1	Ethane, 1,1'-[methylenebis(oxy)]bis[2-chloro-
U117	60-29-7	Ethane, 1,1'-oxybis-(I)
U025	111-44-4	Ethane, 1,1'-oxybis[2-chloro-
U184	76-01-7	Ethane, pentachloro-
U208	630-20-6	Ethane, 1,1,1,2-tetrachloro-
U209	79-34-5	Ethane, 1,1,2,2-tetrachloro-
U218	62-55-5	Ethanethioamide
U226	71-55-6	Ethane, 1,1,1-trichloro-
U227	79-00-5	Ethane, 1,1,2-trichloro-
U410	59669-26-0	Ethanimidothioic acid, N,N'- [thiobis[(methylimino)carbonyloxy]]bis-, dimethyl ester
U394	30558-43-1	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-oxo-, methyl ester.
U359	110-80-5	Ethanol, 2-ethoxy-
U173	1116-54-7	Ethanol, 2,2'-(nitrosoimino)bis-
U395	5952-26-1	Ethanol, 2,2'-oxybis-, dicarbamate.
U004	98-86-2	Ethanone, 1-phenyl-
U043	75-01-4	Ethene, chloro-

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

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

U153	74-93-1	Methanethiol (I, T)	
U225	75-25-2	Methane, tribromo-	
U044	67-66-3	Methane, trichloro-	
U121	75-69-4	Methane, trichlorofluoro-	
U036	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-	
U154	67-56-1	Methanol (I)	
U155	91-80-5	Methapyrilene	
U142	143-50-0	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one, decachlorooctahydro-	1,1a,3,3a,4,5,5a,5b,6-
U247	72-43-5	Methoxychlor	
U154	67-56-1	Methyl alcohol (I)	
U029	74-83-9	Methyl bromide	
U186	504-60-9	1-Methylbutadiene (I)	
U045	74-87-3	Methyl chloride (I,T)	
U156	79-22-1	Methyl chlorocarbonate (I,T)	
U226	71-55-6	Methyl chloroform	
U157	56-49-5	3-Methylcholanthrene	
U158	101-14-4	4,4'-Methylenebis(2-chloroaniline)	
U068	74-95-3	Methylene bromide	
U080	75-09-2	Methylene chloride	
U159	78-93-3	Methyl ethyl ketone (MEK) (I,T)	
U160	1338-23-4	Methyl ethyl ketone peroxide (R,T)	
U138	74-88-4	Methyl iodide	
U161	108-10-1	Methyl isobutyl ketone (I)	
U162	80-62-6	Methyl methacrylate (I,T)	
U161	108-10-1	4-Methyl-2-pentanone (I)	
U164	56-04-2	Methylthiouracil	
U010	50-07-7	Mitomycin C	
U059	20830-81-3	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-	
U167	134-32-7	1-Naphthalenamine	
U168	91-59-8	2-Naphthalenamine	
U026	494-03-1	Naphthalenamine, N,N'-bis(2-chloroethyl)-	
U165	91-20-3	Naphthalene	
U047	91-58-7	Naphthalene, 2-chloro-	
U166	130-15-4	1,4-Naphthalenedione	
U236	72-57-1	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'- dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)bis[5-amino-4-hydroxy]-, tetrasodium salt	
U279	63-25-2	1-Naphthalenol, methylcarbamate.	

U166	130-15-4	1,4-Naphthoquinone
U167	134-32-7	alpha-Naphthylamine
U168	91-59-8	beta-Naphthylamine
U217	10102-45-1	Nitric acid, thallium(1+) salt
U169	98-95-3	Nitrobenzene (I,T)
U170	100-02-7	p-Nitrophenol
U171	79-46-9	2-Nitropropane (I,T)
U172	924-16-3	N-Nitrosodi-n-butylamine
U173	1116-54-7	N-Nitrosodiethanolamine
U174	55-18-5	N-Nitrosodiethylamine
U176	759-73-9	N-Nitroso-N-ethylurea
U177	684-93-5	N-Nitroso-N-methylurea
U178	615-53-2	N-Nitroso-N-methylurethane
U179	100-75-4	N-Nitrosopiperidine
U180	930-55-2	N-Nitrosopyrrolidine
U181	99-55-8	5-Nitro-o-toluidine
U193	1120-71-4	1,2-Oxathiolane, 2,2-dioxide
U058	50-18-0	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl)tetrahydro-, 2-oxide
U115	75-21-8	Oxirane (I,T)
U126	765-34-4	Oxiranecarboxyaldehyde
U041	106-89-8	Oxirane, (chloromethyl)-
U182	123-63-7	Paraldehyde
U183	608-93-5	Pentachlorobenzene
U184	76-01-7	Pentachloroethane
U185	82-68-8	Pentachloronitrobenzene (PCNB)
See F027	87-86-5	Pentachlorophenol
U161	108-10-1	Pentanol, 4-methyl-
U186	504-60-9	1,3-Pentadiene (I)
U187	62-44-2	Phenacetin
U188	108-95-2	Phenol
U048	95-57-8	Phenol, 2-chloro-
U039	59-50-7	Phenol, 4-chloro-3-methyl-
U081	120-83-2	Phenol, 2,4-dichloro-
U082	87-65-0	Phenol, 2,6-dichloro-
U089	56-53-1	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-, (E)-
U101	105-67-9	Phenol, 2,4-dimethyl-
U052	1319-77-3	Phenol, methyl-
U132	70-30-4	Phenol, 2,2'-methylenebis[3,4,6-trichloro-

U411	114-26-1	Phenol, 2-(1-methylethoxy)-, methylcarbamate.
U170	100-02-7	Phenol, 4-nitro-
See F027	87-86-5	Phenol, pentachloro-
See F027	58-90-2	Phenol, 2,3,4,6-tetrachloro-
See F027	95-95-4	Phenol, 2,4,5-trichloro-
See F027	88-06-2	Phenol, 2,4,6-trichloro-
U150	148-82-3	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-
U145	7446-27-7	Phosphoric acid, lead(2+) salt (2:3)
U087	3288-58-2	Phosphorodithioic acid, O,O-diethyl S-methyl ester
U189	1314-80-3	Phosphorus sulfide (R)
U190	85-44-9	Phthalic anhydride
U191	109-06-8	2-Picoline
U179	100-75-4	Piperidine, 1-nitroso-
U192	23950-58-5	Pronamide
U194	107-10-8	1-Propanamine (I,T)
U111	621-64-7	1-Propanamine, N-nitroso-N-propyl-
U110	142-84-7	1-Propanamine, N-propyl- (I)
U066	96-12-8	Propane, 1,2-dibromo-3-chloro-
U083	78-87-5	Propane, 1,2-dichloro-
U149	109-77-3	Propanedinitrile
U171	79-46-9	Propane, 2-nitro- (I,T)
U027	108-60-1	Propane, 2,2'-oxybis[2-chloro-
U193	1120-71-4	1,3-Propane sultone
See F027	93-72-1	Propanoic acid, 2-(2,4,5-trichlorophenoxy)-
U235	126-72-7	1-Propanol, 2,3-dibromo-, phosphate (3:1)
U140	78-83-1	1-Propanol, 2-methyl- (I,T)
U002	67-64-1	2-Propanone (I)
U007	79-06-1	2-Propenamide
U084	542-75-6	1-Propene, 1,3-dichloro-
U243	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
U009	107-13-1	2-Propenenitrile
U152	126-98-7	2-Propenenitrile, 2-methyl- (I,T)
U008	79-10-7	2-Propenoic acid (I)
U113	140-88-5	2-Propenoic acid, ethyl ester (I)
U118	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
U162	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester (I,T)
U373	122-42-9	Propham.
U411	114-26-1	Propoxur.

U194	107-10-8	n-Propylamine (I,T)
U083	78-87-5	Propylene dichloride
U387	52888-80-9	Prosulfocarb.
U148	123-33-1	3,6-Pyridazinedione, 1,2-dihydro-
U196	110-86-1	Pyridine
U191	109-06-8	Pyridine, 2-methyl-
U237	66-75-1	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2- chloroethyl)amino]-
U164	56-04-2	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-
U180	930-55-2	Pyrrolidine, 1-nitroso-
U200	50-55-5	Reserpine
U201	108-46-3	Resorcinol
U203	94-59-7	Safrole
U204	7783-00-8	Selenious acid
U204	7783-00-8	Selenium dioxide
U205	7488-56-4	Selenium sulfide
U205	7488-56-4	Selenium sulfide SeS <sub>2</sub> (R,T)
U015	115-02-6	L-Serine, diazoacetate (ester)
See F027	93-72-1	Silvex (2,4,5-TP)
U206	18883-66-4	Streptozotocin
U103	77-78-1	Sulfuric acid, dimethyl ester
U189	1314-80-3	Sulfur phosphide (R)
See F027	93-76-5	2,4,5-T
U207	95-94-3	1,2,4,5-Tetrachlorobenzene
U208	630-20-6	1,1,1,2-Tetrachloroethane
U209	79-34-5	1,1,2,2-Tetrachloroethane
U210	127-18-4	Tetrachloroethylene
See F027	58-90-2	2,3,4,6-Tetrachlorophenol
U213	109-99-9	Tetrahydrofuran (I)
U214	563-68-8	Thallium(I) acetate
U215	6533-73-9	Thallium(I) carbonate
U216	7791-12-0	Thallium(I) chloride
U216	7791-12-0	Thallium chloride TlCl
U217	10102-45-1	Thallium(I) nitrate
U218	62-55-5	Thioacetamide
U410	59669-26-0	Thiodicarb.
U153	74-93-1	Thiomethanol (I,T)
U244	137-26-8	Thioperoxydicarbonic diamide [(H <sub>2</sub> N)C(S)] <sub>2</sub> S <sub>2</sub> , tetramethyl-
U409	23564-05-8	Thiophanate-methyl.

U219	62-56-6	Thiourea
U244	137-26-8	Thiram
U220	108-88-3	Toluene
U221	25376-45-8	Toluenediamine
U223	26471-62-5	Toluene diisocyanate (R,T)
U328	95-53-4	o-Toluidine
U353	106-49-0	p-Toluidine
U222	636-21-5	o-Toluidine hydrochloride
U389	2303-17-5	Triallate.
U011	61-82-5	1H-1,2,4-Triazol-3-amine
U226	71-55-6	1,1,1-Trichloroethane
U227	79-00-5	1,1,2-Trichloroethane
U228	79-01-6	Trichloroethylene
U121	75-69-4	Trichloromonofluoromethane
See F027	95-95-4	2,4,5-Trichlorophenol
See F027	88-06-2	2,4,6-Trichlorophenol
U404	121-44-8	Triethylamine.
U234	99-35-4	1,3,5-Trinitrobenzene (R,T)
U182	123-63-7	1,3,5-Trioxane, 2,4,6-trimethyl-
U235	126-72-7	Tris(2,3-dibromopropyl) phosphate
U236	72-57-1	Trypan blue
U237	66-75-1	Uracil mustard
U176	759-73-9	Urea, N-ethyl-N-nitroso-
U177	684-93-5	Urea, N-methyl-N-nitroso-
U043	75-01-4	Vinyl chloride
U248	181-81-2	Warfarin, & salts, when present at concentrations of 0.3% or less
U239	1330-20-7	Xylene (l)
U200	50-55-5	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester, (3beta,16beta,17alpha,18beta,20alpha)-
U249	1314-84-7	Zinc phosphide Zn <sub>3</sub> P <sub>2</sub> , when present at concentrations of 10% or less

FOOTNOTE: <sup>1</sup>CAS Number given for parent compound only.

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

Subparagraph (a) of paragraph (6) 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) Exclusion of comparable fuel and syngas fuel. [40 CFR 261.38]

1. Specifications for excluded fuels.

Wastes that meet the specifications for comparable fuel or syngas fuel under subpart (i) or (ii) of this part, respectively, and the other requirements of this subparagraph, are not solid wastes.

- (i) Comparable fuel specifications.
  - (I) Physical specifications.
    - I. Heating value. The heating value must exceed 5,000 Btu/lbs. (11,500 J/g).
    - II. Viscosity. The viscosity must not exceed: 50 cS, as-fired.
  - (II) Constituent specifications. For compounds listed in Table 1 to this subparagraph, the specification levels and, where non-detect is the specification, minimum required detection limits are: (see Table 1 of this subparagraph).
- (ii) Synthesis gas fuel specifications.

Synthesis gas fuel (i.e., syngas fuel) that is generated from hazardous waste must:

- (I) Have a minimum Btu value of 100 Btu/Scf;
  - (II) Contain less than 1 ppmv of total halogen;
  - (III) Contain less than 300 ppmv of total nitrogen other than diatomic nitrogen (N<sub>2</sub>);
  - (IV) Contain less than 200 ppmv of hydrogen sulfide; and
  - (V) Contain less than 1 ppmv of each hazardous constituent in the target list of appendix VIII constituents in paragraph (5) of this rule.
- (iii) Blending to meet the specifications.
    - (I) Hazardous waste shall not be blended to meet the comparable fuel specification under subpart (i) of this part, except as provided by item (II) of this subpart.
    - (II) Blending to meet the viscosity specification. A hazardous waste blended to meet the viscosity specification for comparable fuel shall:
      - I. As generated and prior to any blending, manipulation, or processing, meet the constituent and heating value specifications of subitem (i)(I) and item (i)(II) of this part;
      - II. Be blended at a facility that is subject to the applicable requirements of Rules 0400-12-01-.05 and .06, or subparagraph (4)(e) of Rule 0400-12-01-.03; and
      - III. Not violate the dilution prohibition of subpart (vi) of this part.
  - (iv) Treatment to meet the comparable fuel specifications.
    - (I) A hazardous waste may be treated to meet the specifications for comparable fuel set forth in subpart (i) of this part provided the treatment:

- I. Destroys or removes the constituents listed in the specification or raises the heating value by removing or destroying hazardous constituents or materials;
  - II. Is performed at a facility that is subject to the applicable requirements of Rules 0400-12-01-.05 and .06, or subparagraph (4)(e) of Rule 0400-12-01-.03; and
  - III. Does not violate the dilution prohibition of subpart (vi) of this part.
- (II) Residuals resulting from the treatment of a hazardous waste listed in paragraph (4) of this rule to generate a comparable fuel remain a hazardous waste.
- (v) Generation of a syngas fuel.
- (I) A syngas fuel can be generated from the processing of hazardous wastes to meet the exclusion specifications of subpart (ii) of this part provided the processing:
    - I. Destroys or removes the constituents listed in the specification or raises the heating value by removing or destroying constituents or materials;
    - II. Is performed at a facility that is subject to the applicable requirements of Rules 0400-12-01-.05 and .06, or subparagraph (4)(e) of Rule 0400-12-01-.03 or is an exempt recycling unit pursuant to part (1)(f)3 of this rule; and
    - III. Does not violate the dilution prohibition of subpart (vi) of this part.
  - (II) Residuals resulting from the treatment of a hazardous waste listed in paragraph (4) of this rule to generate a syngas fuel remain a hazardous waste.
- (vi) Dilution prohibition.

No generator, transporter, handler, or owner or operator of a treatment, storage, or disposal facility shall in any way dilute a hazardous waste to meet the specifications of subitem (i)(I) and item (i)(II) of this part for comparable fuel, or subpart (ii) of this part for syngas.

## 2. Implementation.

### (i) General.

- (I) Wastes that meet the specifications provided by part 1 of this subparagraph for comparable fuel or syngas fuel are excluded from the definition of solid waste provided that the conditions under this subparagraph are met. For purposes of this subparagraph, such materials are called excluded fuel; the person claiming and qualifying for the exclusion is called the excluded fuel generator and the person burning the excluded fuel is called the excluded fuel burner.
- (II) The person who generates the excluded fuel must claim the exclusion by complying with the conditions of this subparagraph and keeping records necessary to document compliance with those conditions.

### (ii) Notices.

- (I) Notices to the Commissioner.

- I. The generator must submit a one-time notice, except as provided by subitem III of this item, to the Commissioner or to the Regional or State RCRA and CAA Directors, in whose jurisdiction the exclusion is being claimed and where the excluded fuel will be burned, certifying compliance with the conditions of the exclusion and providing the following documentation:
  - A. The name, address, and RCRA ID number of the person/facility claiming the exclusion;
  - B. The applicable EPA Hazardous Waste Code(s) that would otherwise apply to the excluded fuel;
  - C. The name and address of the units meeting the requirements of subpart (iii) of this part and part 3 of this subparagraph, that will burn the excluded fuel;
  - D. An estimate of the average and maximum monthly and annual quantity of material for which an exclusion would be claimed, except as provided by subitem III of this item; and
  - E. The following statement, which shall be signed and submitted by the person claiming the exclusion or his authorized representative:

“Under penalty of criminal and civil prosecution for making or submitting false statements, representations, or omissions, I certify that the requirements of subparagraph (6)(a) of Rule 0400-12-01-.02 have been met for all comparable fuels identified in this notification. Copies of the records and information required at subpart (6)(a)2(viii) of Rule 0400-12-01-.02 are available at the generator’s facility. Based on my inquiry of the individuals immediately responsible for obtaining the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.”
- II. If there is a substantive change in the information provided in the notice required under this subpart, the generator must submit a revised notification.
- III. Excluded fuel generators must include an estimate of the average and maximum monthly and annual quantity of material for which an exclusion would be claimed only in notices submitted after December 19, 2008 for newly excluded fuel or for revised notices as required by subitem II of this item.

(II) Public notice.

Prior to burning an excluded fuel, the burner must publish in a major newspaper of general circulation local to the site where the fuel will be burned, a notice entitled “Notification of Burning a Fuel Excluded Under

the Resource Conservation and Recovery Act" and containing the following information:

- I. Name, address, and RCRA ID number of the generating facility(ies);
- II. Name and address of the burner and identification of the unit(s) that will burn the excluded fuel;
- III. A brief, general description of the manufacturing, treatment, or other process generating the excluded fuel;
- IV. An estimate of the average and maximum monthly and annual quantity of the excluded fuel to be burned; and
- V. Name and mailing address of the Commissioner or the Regional or State Directors to whom the generator submitted a claim for the exclusion.

(iii) Burning.

The exclusion applies only if the fuel is burned in the following units that also shall be subject to Federal/State/local air emission requirements, including all applicable requirements implementing section 112 of the Clean Air Act or the Tennessee Air Quality Act:

- (I) Industrial furnaces as defined in subparagraph (2)(a) of Rule 0400-12-01-.01;
- (II) Boilers, as defined in subparagraph (2)(a) of Rule 0400-12-01-.01, that are further defined as follows:
  - I. Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes; or
  - II. Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale;
- (III) Hazardous waste incinerators subject to regulation under paragraph (15) of Rule 0400-12-01-.05 or Rule 0400-12-01-.06 and applicable CAA MACT standards or the comparable standard under the Tennessee Air Quality Act.
- (IV) Gas turbines used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale.

(iv) Fuel analysis plan for generators.

The generator of an excluded fuel shall develop and follow a written fuel analysis plan which describes the procedures for sampling and analysis of the material to be excluded. The plan shall be followed and retained at the site of the generator claiming the exclusion.

- (I) At a minimum, the plan must specify:
  - I. The parameters for which each excluded fuel will be analyzed and the rationale for the selection of those parameters;

- II. The test methods which will be used to test for these parameters;
- III. The sampling method which will be used to obtain a representative sample of the excluded fuel to be analyzed;
- IV. The frequency with which the initial analysis of the excluded fuel will be reviewed or repeated to ensure that the analysis is accurate and up to date; and
- V. If process knowledge is used in the determination, any information prepared by the generator in making such determination.

(II) For each analysis, the generator shall document the following:

- I. The dates and times that samples were obtained, and the dates the samples were analyzed;
- II. The names and qualifications of the person(s) who obtained the samples;
- III. A description of the temporal and spatial locations of the samples;
- IV. The name and address of the laboratory facility at which analyses of the samples were performed;
- V. A description of the analytical methods used, including any clean-up and sample preparation methods;
- VI. All quantitation limits achieved and all other quality control results for the analysis (including method blanks, duplicate analyses, matrix spikes, etc.), laboratory quality assurance data, and the description of any deviations from analytical methods written in the plan or from any other activity written in the plan which occurred;
- VII. All laboratory results demonstrating whether the exclusion specifications have been met; and
- VIII. All laboratory documentation that support the analytical results, unless a contract between the claimant and the laboratory provides for the documentation to be maintained by the laboratory for the period specified in subpart (ix) of this part and also provides for the availability of the documentation to the claimant upon request.

(III) Syngas fuel generators shall submit for approval, prior to performing sampling, analysis, or any management of an excluded syngas fuel, a fuel analysis plan containing the elements of item (I) of this subpart to the Commissioner. The approval of fuel analysis plans must be stated in writing and received by the facility prior to sampling and analysis to demonstrate the exclusion of a syngas. The approval of the fuel analysis plan may contain such provisions and conditions as the Commissioner deems appropriate.

(v) Excluded fuel sampling and analysis.

(I) General.

For wastes for which an exclusion is claimed under the specifications provided by subpart 1(i) or (ii) of this subparagraph, the generator of the waste must test for all the constituents in appendix VIII in paragraph (5) of this rule, except those that the generator determines, based on testing or knowledge, should not be present in the fuel. The generator is required to document the basis of each determination that a constituent with an applicable specification should not be present. The generator may not determine that any of the following categories of constituents with a specification in Table 1 to this subparagraph should not be present:

- I. A constituent that triggered the toxicity characteristic for the constituents that were the basis for listing the hazardous secondary material as a hazardous waste, or constituents for which there is a treatment standard for the waste code in subparagraph (3)(a) of Rule 0400-12-01-.10;
- II. A constituent detected in previous analysis of the waste;
- III. Constituents introduced into the process that generates the waste; or
- IV. Constituents that are byproducts or side reactions to the process that generates the waste.

(Note: Any claim under this subpart must be valid and accurate for all hazardous constituents; a determination not to test for a hazardous constituent will not shield a generator from liability should that constituent later be found in the excluded fuel above the exclusion specifications.)

- (II) Use of process knowledge. For each waste for which the comparable fuel or syngas exclusion is claimed where the generator of the excluded fuel is not the original generator of the hazardous waste, the generator of the excluded fuel may not use process knowledge pursuant to item (I) of this subpart and must test to determine that all of the constituent specifications of subparts 1(i) and (ii) of this subparagraph, as applicable, have been met.
- (III) The excluded fuel generator may use any reliable analytical method to demonstrate that no constituent of concern is present at concentrations above the specification levels. It is the responsibility of the generator to ensure that the sampling and analysis are unbiased, precise, and representative of the excluded fuel. For the fuel to be eligible for exclusion, a generator must demonstrate that:
  - I. The 95% upper confidence limit of the mean concentration for each constituent of concern is not above the specification level; and
  - II. The analyses could have detected the presence of the constituent at or below the specification level.
- (IV) Nothing in this subpart preempts, overrides or otherwise negates the provision in subparagraph (1)(b) of Rule 0400-12-01-.03, which requires any person who generates a solid waste to determine if that waste is a hazardous waste.
- (V) In an enforcement action, the burden of proof to establish conformance with the exclusion specification shall be on the generator claiming the exclusion.

- (VI) The generator must conduct sampling and analysis in accordance with the fuel analysis plan developed under subpart (iv) of this part.
- (VII) Viscosity condition for comparable fuel.
  - I. Excluded comparable fuel that has not been blended to meet the kinematic viscosity specification shall be analyzed as-generated.
  - II. If hazardous waste is blended to meet the kinematic viscosity specification for comparable fuel, the generator shall:
    - A. Analyze the hazardous waste as-generated to ensure that it meets the constituent and heating value specifications of subpart 1(i) of this subparagraph; and
    - B. After blending, analyze the fuel again to ensure that the blended fuel meets all comparable fuel specifications.
- (VIII) Excluded fuel must be re-tested, at a minimum, annually and must be retested after a process change that could change its chemical or physical properties in a manner than may affect conformance with the specifications.

- (vi) Reserved
- (vii) Speculative accumulation.

Excluded fuel must not be accumulated speculatively, as defined in subpart (1)(b)3(viii) of this rule.

- (viii) Operating record.

The generator must maintain an operating record on site containing the following information:

- (I) All information required to be submitted to the implementing authority as part of the notification of the claim:
  - I. The owner/operator name, address, and the facility Installation ID number of the person claiming the exclusion;
  - II. For each excluded fuel, the hazardous waste codes that would be applicable if the material were discarded; and
  - III. The certification signed by the person claiming the exclusion or his authorized representative.
- (II) A brief description of the process that generated the excluded fuel. If the comparable fuel generator is not the generator of the original hazardous waste, provide a brief description of the process that generated the hazardous waste;
- (III) The monthly and annual quantities of each fuel claimed to be excluded;
- (IV) Documentation for any claim that a constituent is not present in the excluded fuel as required under item (v)(l) of this part;
- (V) The results of all analyses and all detection limits achieved as required under subpart (iv) of this part;

- (VI) If the comparable fuel was generated through treatment or blending, documentation of compliance with the applicable provisions of subparts 1(iii) and (iv) of this subparagraph;
- (VII) If the excluded fuel is to be shipped off-site, a certification from the burner as required under subpart (x) of this part;
- (VIII) The fuel analysis plan and documentation of all sampling and analysis results as required by subpart (iv) of this part; and
- (IX) If the generator ships excluded fuel off-site for burning, the generator must retain for each shipment the following information on-site:
  - I. The name and address of the facility receiving the excluded fuel for burning;
  - II. The quantity of excluded fuel shipped and delivered;
  - III. The date of shipment or delivery;
  - IV. A cross-reference to the record of excluded fuel analysis or other information used to make the determination that the excluded fuel meets the specifications as required under subpart (iv) of this part; and
  - V. A one-time certification by the burner as required under subpart (x) of this part.

(ix) Records retention.

Records must be maintained for a period of three years.

(x) Burner certification to the generator.

Prior to submitting a notification to the Commissioner, a generator of excluded fuel who intends to ship the excluded fuel off-site for burning must obtain a one-time written, signed statement from the burner:

- (I) Certifying that the excluded fuel will only be burned in an industrial furnace, industrial boiler, utility boiler, or hazardous waste incinerator, as required under subpart (iii) of this part;
- (II) Identifying the name and address of the facility that will burn the excluded fuel; and
- (III) Certifying that the State in which the burner is located is authorized to exclude wastes as excluded fuel under the provisions of this subparagraph.

(xi) Ineligible waste codes.

Wastes that are listed as hazardous waste because of the presence of dioxins or furans, as set out in appendix VII in paragraph (5) of this rule, are not eligible for these exclusions, and any fuel produced from or otherwise containing these wastes remains a hazardous waste subject to the full hazardous waste management requirements.

(xii) Regulatory status of boiler residues.

Burning excluded fuel that was otherwise a hazardous waste listed subparagraphs (4)(b) through (d) of this rule does not subject boiler residues,

including bottom ash and emission control residues, to regulation as derived-from hazardous wastes.

- (xiii) Residues in containers and tank systems upon cessation of operations.
  - (I) Liquid and accumulated solid residues that remain in a container or tank system for more than 90 days after the container or tank system ceases to be operated for storage or transport of excluded fuel product are subject to regulation under Rules 0400-12-01-.03 through 0400-12-01-.10.
  - (II) Liquid and accumulated solid residues that are removed from a container or tank system after the container or tank system ceases to be operated for storage or transport of excluded fuel product are solid wastes subject to regulation as hazardous waste if the waste exhibits a characteristic of hazardous waste under subparagraphs (3)(b) through (e) of this rule or if the fuel were otherwise a hazardous waste listed under subparagraphs (4)(b) through (d) of this rule when the exclusion was claimed.
  - (III) Liquid and accumulated solid residues that are removed from a container or tank system and which do not meet the specifications for exclusion under subpart 1(i) or (ii) of this subparagraph are solid wastes subject to regulation as hazardous waste if:
    - I. The waste exhibits a characteristic of hazardous waste under subparagraphs (3)(b) through (d) of this rule; or
    - II. The fuel were otherwise a hazardous waste listed under subparagraphs (4)(b) through (d) of this rule. The hazardous waste code for the listed waste applies to these liquid and accumulated solid residues.
- (xiv) Waiver of RCRA Closure Requirements.

Interim status and permitted storage and combustion units, and generator storage units exempt from the permit requirements under subparagraph (4)(e) of Rule 0400-12-01-.03, are not subject to the closure requirements of Rules 0400-12-01-.05 and 0400-12-01-.06 provided that the storage and combustion unit has been used to manage only hazardous waste that is subsequently excluded under the conditions of this subparagraph, and that afterward will be used only to manage fuel excluded under this subparagraph.
- (xv) Spills and leaks.
  - (I) Excluded fuel that is spilled or leaked and that therefore no longer meets the conditions of the exclusion is discarded and must be managed as a hazardous waste if it exhibits a characteristic of hazardous waste under subparagraphs (3)(b) through (d) of this rule or if the fuel were otherwise a hazardous waste listed in subparagraphs (4)(b) through (d) of this rule.
  - (II) For excluded fuel that would have otherwise been a hazardous waste listed in subparagraphs (4)(b) through (d) of this rule and which is spilled or leaked, the hazardous waste code for the listed waste applies to the spilled or leaked material.
- (xvi) Nothing in this part preempts, overrides, or otherwise negates the provisions in CERCLA Section 103, which establish reporting obligations for releases of hazardous substances, or the Department of Transportation requirements for hazardous materials in 49 CFR parts 171 through 180.

3. Failure to comply with the conditions of the exclusion.

An excluded fuel loses its exclusion if any person managing the fuel fails to comply with the conditions of the exclusion under this subparagraph, and the material must be managed as hazardous waste from the point of generation. In such situations, EPA or the Commissioner may take enforcement action under RCRA section 3008(a), or the Commissioner may take enforcement action under T.C.A. §§ 68-212-101 et seq.

Table 1: Detection and Detection Limit Values for Comparable Fuel Specification

Chemical Name	CAS No.	Concentration limit (mg/kg at 10,000 BTU/lb)	Minimum required detection limit (mg/kg)
Total Nitrogen as N	NA	4900	
Total Halogens as Cl	NA	540	
Total Organic Halogens as Cl	NA	(1)	
Polychlorinated biphenyls total [Arocolors, total]	1336-36-3	ND	1.4
Cyanide, total	57-12-5	ND	1
Metals:			
Antimony, total	7440-36-0	12	
Arsenic, total	7440-38-2	0.23	
Barium, total	7440-39-3	23	
Beryllium, total	7440-41-7	1.2	
Cadmium, total	7440-43-9		1.2
Chromium, total	7440-47-3	2.3	
Cobalt	7440-48-4	4.6	
Lead, total	7439-92-1	31	
Manganese	7439-96-5	1.2	
Mercury, total	7439-97-6	0.25	
Nickel, total	7440-02-0	58	
Selenium, total	7782-49-2	0.23	
Silver, total	7440-22-4	2.3	
Thallium, total	7440-28-0	23	
Hydrocarbons:			
Benzo[a]anthracene	56-55-3	2400	
Benzene	71-43-2	4100	
Benzo[b]fluoranthene	205-99-2	2400	
Benzo[k]fluoranthene	207-08-9	2400	
Benzo[a]pyrene	50-32-8	2400	
Chrysene	218-01-9	2400	
Dibenzo[a, h]anthracene	53-70-3	2400	
7, 12-Dimethylbenz[a]anthracene	57-97-6	2400	
Fluoranthene	206-44-0	2400	
Indeno(1, 2, 3-cd)pyrene	193-39-5	2400	
3-Methylcholanthrene	56-49-5	2400	
Naphthalene	91-20-3	3200	
Toluene	108-88-3	36000	
Oxygenates:			
Acetophenone	98-86-2	2400	
Acrolein	107-02-8	39	
Allyl alcohol	107-18-6	30	
Bis(2-ethylhexyl) phthalate [Di-2-ethylhexyl phthalate]	117-81-7	2400	
Butyl benzyl phthalate	85-68-7	2400	
o-Cresol [2-Methyl phenol]	95-48-7	2400	
m-Cresol [3-Methyl phenol]	108-39-4	2400	
p-Cresol [4-Methyl phenol]	106-44-5	2400	
Di-n-butyl phthalate	84-74-2	2400	
Diethyl phthalate	84-66-2	2400	
2, 4-Dimethylphenol	105-67-9	2400	

Dimethyl phthalate	131-11-3	2400	
Di-n-octyl phthalate	117-84-0	2400	
Endothall	145-73-3	100	
Ethyl methacrylate	97-63-2	39	
2-Ethoxyethanol [Ethylene glycol monoethyl ether]	110-80-5	100	
Isobutyl alcohol	78-83-1	39	
Isosafrole	120-58-1	2400	
Methyl ethyl ketone [2-Butanone]	78-93-3	39	
Methyl methacrylate	80-62-6	39	
1, 4-Naphthoquinone	130-15-4	2400	
Phenol	108-95-2	2400	
Propargyl alcohol [2-Propyn-1-ol]	107-19-7	30	
Safrole	94-59-7	2400	
Sulfonated Organics:			
Carbon disulfide	75-15-0	ND	39
Disulfoton	298-04-4	ND	2400
Ethyl methanesulfonate	62-50-0	ND	2400
Methyl methanesulfonate	66-27-3	ND	2400
Phorate	298-02-2	ND	2400
1, 3-Propane sultone	1120-71-4	ND	100
Tetraethyldithiopyrophosphate [Sulfotepp]	3689-24-5	ND	2400
Thiophenol [Benzenethiol]	108-98-5	ND	30
O, O, O-Triethyl phosphorothioate	126-68-1	ND	2400
Nitrogenated Organics:			
Acetonitrile [Methyl cyanide]	75-05-8	ND	39
2-Acetylaminofluorene [2-AAF]	53-96-3	ND	2400
Acrylonitrile	107-13-1	ND	39
4-Aminobiphenyl	92-67-1	ND	2400
4-Aminopyridine	504-24-5	ND	100
Aniline	62-53-3	ND	2400
Benzidine	92-87-5	ND	2400
Dibenz[a, j]acridine	224-42-0	ND	2400
O, O-Diethyl O-pyrazinyl Phosphorothioate [Thionazin]	297-97-2	ND	2400
Dimethoate	60-51-5	ND	2400
p-(Dimethylamino) azobenzene [4-dimethylaminoazobenzene]			
3,3'-Dimethylbenzidine	60-11-7	ND	2400
$\alpha$ , $\alpha$ -Dimethylphenethylamine	119-93-7	ND	2400
	122-09-8	ND	2400
3, 3'-Dimethoxybenzidine	119-90-4	ND	100
1, 3-Dinitrobenzene [m-Dinitrobenzene]	99-65-0	ND	2400
4, 6-Dinitro-o-cresol	534-52-1	ND	2400
2, 4-Dinitrophenol	51-28-5	ND	2400
2, 4-Dinitrotoluene	121-14-2	ND	2400
2, 6-Dinitrotoluene	606-20-2	ND	2400
Dinoseb [2-sec-Butyl-4, 6-dinitrophenol]	88-85-7	ND	2400
Diphenylamine	122-39-4	ND	2400
Ethyl carbamate [Urethane]	51-79-6	ND	100
Ethylenethiourea (2-Imidazolidinethione)	96-45-7	ND	110
Famphur	52-85-7	ND	2400
Methacrylonitrile	126-98-7	ND	39
Methapyrilene	91-80-5	ND	2400
Methomyl	16752-77-5	ND	57
2-Methylactonitrile, [Acetone cyanohydrin]	75-86-5	ND	100
Methyl parathion	298-00-0	ND	2400
MNNG (N-Metyl-N-nitroso-N[prime]- nitroguanidine)	70-25-7	ND	110
1-Naphthylamine, [ $\alpha$ -Naphthylamine]	134-32-7	ND	2400
2-Naphthylamine, [ $\beta$ -Naphthylamine]	91-59-8	ND	2400
Nicotine	54-11-5	ND	100
4-Nitroaniline, [p-Nitroaniline]	100-01-6	ND	2400

Nitrobenzene	98-95-3	ND	2400
p-Nitrophenol, [p-Nitrophenol]	100-02-7	ND	2400
5-Nitro-o-toluidine	99-55-8	ND	2400
N-Nitrosodi-n-butylamine	924-16-3	ND	2400
N-Nitrosodiethylamine	55-18-5	ND	2400
N-Nitrosodiphenylamine, [Diphenylnitrosamine]	86-30-6	ND	2400
N-Nitroso-N-methylethylamine	10595-95-6	ND	2400
N-Nitrosomorpholine	59-89-2	ND	2400
N-Nitrosophiperidine	100-75-4	ND	2400
N-Nitrosopyrrolidine	930-55-2	ND	2400
2-Nitropropane	79-46-9	ND	30
Parathion	56-38-2	ND	2400
Phenacetin	62-44-2	ND	2400
1, 4-Phenyne diamine, [p-Phenylenediamine]	106-50-3	ND	2400
N-Phenylthiourea	103-85-5	ND	57
2-Picoline [alpha-Picoline]	109-06-8	ND	2400
Propylthioracil, [6-Propyl-2-thiouracil]	51-52-5	ND	100
Pyridine	110-86-1	ND	2400
Strychnine	57-24-9	ND	100
Thioacetamide	62-55-5	ND	57
Thiofanox	39196-18-4	ND	100
Thiourea	62-56-6	ND	57
Toluene-2,4-diamine [2,4-Diaminotoluene]	95-80-7	ND	57
Toluene-2, 6-diamine [2, 6-Diaminotoluene]	823-40-5	ND	57
o-Toluidine	95-53-4	ND	2400
p-Toluidine	106-49-0	ND	100
1, 3, 5-Trinitrobenzene, [sym-Trinitrobenzene]	99-35-4	ND	2400
Halogenated Organics:			
Allyl chloride	107-05-1	ND	39
Aramite	140-57-8	ND	2400
Benzal chloride [Dichloromethyl benzene]	98-87-3	ND	100
Benzyl chloride	100-44-77	ND	100
bis(2-Chloroethyl)ether [Dichloroethyl ether]	111-44-4	ND	2400
Bromoform [Tribromomethane]	75-25-2	ND	39
Bromomethane [Methyl bromide]	74-83-9	ND	39
4-Bromophenyl phenyl ether [p-Bromo diphenyl ether]	101-55-3	ND	2400
Carbon tetrachloride	56-23-5	ND	39
Chlordane	57-74-9	ND	14
p-Chloroaniline	106-47-8	ND	2400
Chlorobenzene	108-90-7	ND	39
Chlorobenzilate	510-15-6	ND	2400
p-Chloro-m-cresol	59-50-7	ND	2400
2-Chloroethyl vinyl ether	110-75-8	ND	39
Chloroform	67-66-3	ND	39
Chloromethane [Methyl chloride]	74-87-3	ND	39
2-Chloronaphthalene [beta-Chloronaphthalene]	91-58-7	ND	2400
2-Chlorophenol [o-Chlorophenol]	95-57-8	ND	2400
Chloroprene [2-Chloro-1, 3-butadiene]	1126-99-8	ND	39
2, 4-D [2, 4-Dichlorophenoxyacetic acid]	94-75-7	ND	7
Diallate	2303-16-4	ND	2400
1, 2-Dibromo-3-chloropropane	96-12-8	ND	39
1, 2-Dichlorobenzene [o-Dichlorobenzene]	95-50-1	ND	2400
1, 3-Dichlorobenzene [m-Dichlorobenzene]	541-73-1	ND	2400
1, 4-Dichlorobenzene [p-Dichlorobenzene]	106-46-7	ND	2400
3, 3[prime]-Dichlorobenzidine	91-94-1	ND	2400
Dichlorodifluoromethane [CFC-12]	75-71-8	ND	39
1, 2-Dichloroethane [Ethylene dichloride]	107-06-2	ND	39
1, 1-Dichloroethylene [Vinylidene chloride]	75-35-4	ND	39
Dichloromethoxy ethane [Bis(2-chloroethoxy)methane]	111-91-1	ND	2400
2,4-Dichlorophenol	120-83-2	ND	2400

2, 6-Dichlorophenol	87-65-0	ND	2400
1, 2-Dichloropropane [Propylene dichloride]	78-87-5	ND	39
cis-1, 3-Dichloropropylene	10061-01-5	ND	39
trans-1, 3-Dichloropropylene	10061-02-6	ND	39
1,3-Dichloro-2propanol	96-23-1	ND	30
Endosulfan I	959-98-8	ND	1.4
Endosulfan II	33213-65-9	ND	1.4
Endrin	72-20-8	ND	1.4
Endrin aldehyde	7421-93-4	ND	1.4
Endrin Ketone	53494-70-5	ND	1.4
Epichlorohydrin [1-Chloro-2, 3-epoxy propane]	106-89-8	ND	30
Ethylidene dichloride [1, 1-Dichloroethane]	75-34-3	ND	39
2-Fluoroacetamide	640-19-7	ND	100
Heptachlor	76-44-8	ND	1.4
Heptachlor epoxide	1024-57-3	ND	2.8
Hexachlorobenzene	118-74-1	ND	2400
Hexachloro-1, 3-butadiene [Hexachlorobutadiene]	87-68-3	ND	2400
Hexachlorocyclopentadiene	77-47-4	ND	2400
Hexachloroethane	67-72-1	ND	2400
Hexachlorophene	70-30-4	ND	59000
Hexachloropropene [Hexachloropropylene]	1888-71-7	ND	2400
Isodrin	465-73-6	ND	2400
Kepone [Chlordecone]	143-50-0	ND	4700
Lindane [gamma-BHC] [gammaHexachlorocyclohexane]	58-89-9	ND	1.4
Methylene chloride [Dichloromethane]	75-09-2	ND	39
4, 4'-Methylene-bis(2-chloroaniline)	101-14-4	ND	100
Methyl iodide [Iodomethane]	74-88-4	ND	39
Pentachlorobenzene	608-93-5	ND	2400
Pentachloroethane	76-01-7	ND	39
Pentachloronitrobenzene [PCNB] [Quintobenzene] [Quintozene]	82-68-8	ND	2400
Pentachlorophenol	87-86-5	ND	2400
Pronamide	23950-58-5	ND	2400
Silvex [2, 4, 5-Trichlorophenoxypropionic acid]	93-72-1	ND	7.0
2, 3, 7, 8-Tetrachlorodibenzo-p-dioxin [2, 3, 7, 8-TCDD]	1746-01-6	ND	30
1, 2, 4, 5-Tetrachlorobenzene	95-94-3	ND	2400
1, 1, 2, 2-Tetrachloroethane	79-34-5	ND	39
Tetrachloroethylene [Perchloroethylene]	127-18-4	ND	39
2, 3, 4, 6-Tetrachlorophenol	58-90-2	ND	2400
1, 2, 4-Trichlorobenzene	120-82-1	ND	2400
1,1,1-Trichloroethane [Methyl chloroform]	71-55-6	ND	39
1,1,2-Trichloroethane [Vinyl trichloride]	79-00-5	ND	39
Trichloroethylene	79-01-6	ND	39
Trichlorofluoromethane [Trichloromonofluoromethane]	75-69-4	ND	39
2, 4, 5-Trichlorophenol	95-95-4	ND	2400
2, 4, 6-Trichlorophenol	88-06-2	ND	2400
1, 2, 3-Trichloropropane	96-18-4	ND	39
Vinyl Chloride	75-01-4	ND	39

Notes:

NA –Not Applicable.

ND –Nondetect.

<sup>1</sup>25 or individual halogenated organics listed below.

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

Subparagraph (k) of paragraph (7) of Rule 0400-12-01-.05 Interim Status Standards for Owners and Operators of Existing Hazardous Waste Treatment, Storage, and Diposal Facilities is amended by deleting it in its entirety and substituting instead the following:

(k) Certification of Completion of Post-closure Care [40 CFR 265.120]

No later than 60 days after the completion of the established post-closure care period for each hazardous waste disposal unit, the owner or operator must submit to the Commissioner, by registered mail, a certification that the post-closure care period for the hazardous waste disposal unit was performed in accordance with the specifications in the approved post-closure plan. The certification must be signed by the owner or operator and a qualified Professional Engineer. Documentation supporting the qualified Professional Engineer's certification must be furnished to the Commissioner upon request until he releases the owner or operator from the financial assurance requirements for post-closure care under part (8)(f)3 of this rule.

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

Part 2 of subparagraph (g) of paragraph (1) of Rule 0400-12-01-.10 Land Disposal Restrictions is amended by deleting subpart (iv) in its entirety and substituting instead the following:

- (iv) The treatment facility must submit a one-time certification signed by an authorized representative with the initial shipment of waste or treatment residue of a restricted waste to the land disposal facility. The certification must state:

"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that it has been maintained and operated properly so as to comply with the treatment standards specified in Rule 0400-12-001-.10(3)(a) without impermissible dilution of the prohibited waste. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury."

A certification is also necessary for contaminated soil and it must state:

"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and believe that it has been maintained and operated properly so as to comply with treatment standards specified in Rule 0400-12-01-.10(3)(j) without impermissible dilution of the prohibited waste. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury."

- (I) A copy of the certification must be placed in the treatment facility's on-site files. If the waste or treatment residue changes, or the receiving facility changes, a new certification must be sent to the receiving facility, and a copy placed in the file.
- (II) Debris excluded from the definition of hazardous waste under Rule 0400-12-01-.02(1)(c)6 (i.e., debris treated by an extraction or destruction technology provided by Table 1, subparagraph (3)(f) of this rule, and debris that the Commissioner has determined does not contain hazardous waste), however, is subject to the notification and certification requirements of part 4 of this subparagraph rather than the certification requirements of this subpart.
- (III) For wastes with organic constituents having treatment standards expressed as concentration levels, if compliance with the treatment standards is based in whole or in part on the analytical detection limit alternative specified in part (3)(a)4 of this rule, the certification, signed by an authorized representative, must state the following:

"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by combustion units as specified in Rule 0400-12-01-.10(3)(c), Table 1. I have been unable to detect the nonwastewater organic constituents, despite having used best good-faith efforts to analyze for such constituents. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury."

- (IV) For characteristic wastes that are subject to the treatment standards in subparagraph (3)(a) of this rule (other than those expressed as a method of treatment) or subparagraph (3)(j) of this rule and that contain underlying hazardous constituents as defined in part (b)10 of this paragraph; if these wastes are treated on-site to remove the hazardous characteristic; and are then sent off-site for treatment of underlying hazardous constituents, the certification must state the following:

"I certify under penalty of law that the waste has been treated in accordance with the requirements of Rule 0400-12-01-.10(3)(a) or Rule 0400-12-01-.10(3)(j) to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury."

- (V) For characteristic wastes that contain underlying hazardous constituents as defined in part (b)10 of this paragraph that are treated on-site to remove the hazardous characteristic and to treat underlying hazardous constituents to levels in subparagraph (3)(i) of this rule Universal Treatment Standards, the certification must state the following:

"I certify under penalty of law that the waste has been treated in accordance with the requirements of Rule 0400-12-01-.10(3)(a) to remove the hazardous characteristic, and that underlying hazardous constituents, as defined in Rule 0400-12-01-.10(1)(b)10, have been treated on-site to meet the Rule 0400-12-01-.10(3)(i) Universal Treatment Standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury."

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

Waste code K161 of the Table "Treatment Standards for Hazardous Wastes" following part 10 of subparagraph (a) of paragraph (3) of Rule 0400-12-01-.10 Land Disposal Restrictions is amended by deleting "137-30-4" in the third column to the right of "Dithiocarbamates (total) <sup>10</sup> " and replacing it with "NA" so that, as amended, the entry for K161 shall read as follows:

K161	Purification solids (including filtration, evaporation, and centrifugation solids), baghouse dust and floor sweepings from the production of dithiocarbamate acids and their salts.	Antimony	7440-36-0	1.9	1.15 mg/L TCLP
		Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
		Carbon disulfide	75-15-0	3.8	4.8 mg/L TCLP
		Dithiocarbamates (total) <sup>10</sup>	NA	0.028; or CMBST, CHOXD, BIODG or CARBN	28; or CMBST
		Lead	7439-92-1	0.69	0.75 mg/L TCLP
		Nickel	7440-02-0	3.98	11.0 mg/L TCLP
		Selenium	7782-49-2	0.82	5.7 mg/L TCLP

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: March 16, 2015

Signature: *Lisa Hughey*

Name of Officer: Lisa Hughey

Title of Officer: Deputy Director, Division of Solid Waste Management

Subscribed and sworn to before me on: March 16, 2015

Notary Public Signature: *Carol L. Grice*

My commission expires on: June 21, 2016

**Department of State Use Only**

Filed with the Department of State on: 3-16-15

*Tre Hargett*

Tre Hargett  
Secretary of State

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