

ENVIRONMENTAL PROTECTION AGENCY**40 CFR Parts 268 and 271**

[EPA # 530-Z-96-002; FRL-5560-1]

RIN 2050-AD38

Emergency Revision of the Land Disposal Restrictions (LDR) Phase III Treatment Standards for Listed Hazardous Wastes From Carbamate Production

AGENCY: Environmental Protection Agency (EPA, the Agency).

ACTION: Immediate final rule.

SUMMARY: On April 8, 1996, EPA published treatment standards (the "Phase III" final rule) for a number of hazardous wastes associated with the production of carbamate pesticides ("carbamate wastes") (61 FR 15566, April 8, 1996). The treatment standards were expressed as levels of chemical constituents that had to be measured in treatment residues before land disposal. They became effective July 8, 1996.

The Agency recently has become aware, however, of a serious analytic monitoring problem associated with the carbamate constituent treatment standards. Laboratory standards (chemicals used to calibrate laboratory instruments) do not exist for every carbamate constituent. Since commercial laboratories currently are unable to analyze all of the carbamate waste constituents, treatment facilities cannot certify that the LDR treatment standards have been achieved. Today's final rule revises the carbamate waste treatment standards for one year from the date of publication by allowing carbamate wastes to be treated either by any technology which achieves the constituent concentration levels promulgated in the Phase III rule, or by treatment technologies specified in this final rule as alternative treatment standards. This rule also suspends the requirement to treat carbamate waste constituents when they are expected to be present in ignitable, corrosive, reactive or toxic hazardous wastes as "underlying hazardous constituents."

The Agency believes that these temporary alternative treatment standards will assure that carbamate wastes are adequately treated prior to land disposal, while providing time for analytic chemical standards to be developed. At the end of the year EPA expects that laboratories will be able to perform the analyses necessary to measure compliance with treatment levels. At that time, therefore, the LDR treatment standards for carbamate

wastes will revert to those originally promulgated in the Phase III rule.

EFFECTIVE DATE: August 26, 1996.

ADDRESSES: Supporting materials are available for viewing in the RCRA Information Center (RIC), located at Crystal Gateway One, 1235 Jefferson Davis Highway, First Floor, Arlington, VA. The Docket Identification Number is F-96-P32F-FFFFF. The RIC is open from 9 a.m. to 4 p.m., Monday through Friday, except for Federal holidays. The public must make an appointment to review docket materials by calling (703) 603-9230. The public may copy a maximum of 100 pages from any regulatory document at no cost. Additional copies cost \$0.15 per page.

FOR FURTHER INFORMATION CONTACT: For general information contact the RCRA Hotline at 800-424-9346 (toll-free) or 703-412-9810 locally. For technical information on the carbamate treatment standards, contact Shaun McGarvey in the Office of Solid Waste, phone 703-308-8603. For specific information about this rule, contact Rhonda Craig, phone 703-308-8771.

SUPPLEMENTARY INFORMATION:**I. Background**

The Phase III final rule established treatment standards for 64 listed hazardous wastes associated with carbamate pesticide production (61 FR 15583; see also the attached appendix for the list of carbamate wastes). The treatment standards were at Universal Treatment Standard (UTS) levels for 21 of the constituents of concern (16 organic constituents and 5 metals), and at newly-established levels for 42 other constituents that were added to the UTS list.

The wastewater standards for the 42 new constituents were based on data developed by the Office of Water for the development of effluent guideline limitations, or on data transferred from other UTS constituents. These data reflected performance of biodegradation, combustion, carbon adsorption, or chemical oxidation.

There were no sampling data from treatment of carbamate nonwastewaters at the time treatment standards were being developed; thus, the nonwastewater treatment standard levels were calculated using analytical detection limits, based on EPA's experience that combustion technologies destroy organic constituents to nondetectable levels. To account for variability, the treatment standards were based on the detection limit for the waste constituent times a variability factor. (See BDAT

Background Document for Carbamates at 4-4 through 4-9.)

During the comment period for the Phase III proposed rule, EPA became aware that commenters thought a number of the 42 constituents with newly-established UTS levels did not have EPA-recommended analytical methods for measuring compliance. Furthermore, some commenters noted that laboratory standards were not available for some of the constituents. Thus, laboratories would not be able to calibrate their instruments to measure compliance with treatment standards for those constituents. EPA responded that analytical methods had been recommended for all carbamate waste constituents, and that analytical standards were expected to become available prior to the Phase III effective date, as laboratories geared up for the new regulation.

After EPA published the Phase III rule on April 8, 1996, but shortly before the treatment standards took effect on July 8, several companies in the waste management industry again contacted EPA reporting that analytic laboratory standards were in fact not available for some of the carbamate waste constituents. The Agency contacted several laboratories (see Memorandum to the Docket from Shaun McGarvey, EPA, August 1, 1996). EPA now agrees that the waste management industry was unintentionally left in a quandary: they were required to certify compliance with the carbamate waste treatment standards but commercial laboratories indicated that they were only able to perform the necessary analyses for some of the newly regulated constituents. Thus, it would be impossible to document that the treatment standards were or were not achieved for those constituents which cannot be analyzed.

The problem was complicated by the LDR rules that pertain to regulation of underlying hazardous constituents (UHCs) in characteristic (or formerly characteristic) hazardous wastes. Because 42 new carbamate constituents have been added to the UTS list (61 FR 15584), they thus become UHCs. Under the regulations published on May 24, 1993 (the "Emergency Rule," 58 FR 29860; codified at 40 CFR 268.2(i), 268.7(a) and 268.9), and on September 19, 1994 (Phase II Rule, 59 FR 47982; same citations as above), whenever a generator sends a characteristic (or formerly-characteristic) waste to a treatment facility, they must identify for treatment not only the hazardous characteristic, but also all UHCs reasonably expected to be present in the waste at the point of generation. Because of the lack of laboratory

standards for all carbamate constituents, generators could not in all cases identify the UHCs reasonably expected to be present in their wastes, and treatment facilities and EPA could not monitor compliance with the standards for the carbamate UHCs.

II. The Revised Carbamate Treatment Standards

This final rule establishes temporary treatment standards for carbamate wastes for a one-year period. EPA believes that one year is sufficient time for laboratory standards to be developed and for laboratories to take appropriate steps to do the necessary analyses for these wastes. The temporary alternative treatment standards will be in effect for one year from the date of publication of this final rule.

The Phase III rule required treatment of carbamate wastes to UTS levels. The temporary alternative standards being promulgated today provide waste handlers with a choice of meeting the Phase III treatment levels, or of using a specified treatment technology. Combustion is the specified technology for nonwastewaters; combustion, biodegradation, chemical oxidation, and carbon adsorption are the specified technologies for wastewaters. These technologies are defined at 40 CFR 268.42, Table 1 (see technology codes: BIODG, CARBN, CHOXD, and CMBST). If the wastes are treated by a specified technology, there is no requirement to measure compliance with treatment levels (thus the analytical problems are avoided). Because the performance of these Best Demonstrated Available Technologies (BDATs) was the basis of the originally promulgated treatment levels, EPA believes that temporarily allowing the use of these BDATs—without a requirement to monitor the treatment residues—fully satisfies the core requirement of the LDR program: hazardous wastes must be effectively treated before they are land disposed.

EPA considered completely replacing the carbamate treatment standard levels with specified treatment methods, rather than providing the alternative approach being promulgated in this rule. EPA decided it was better to retain the treatment levels (along with the alternative treatment methods) and let the regulated community decide which treatment standards to meet. EPA believes that it is important to retain the treatment levels because laboratories may be ready to analyze all carbamate waste constituents before the end of the year. Furthermore, it is possible that a carbamate waste would not contain any of the problem constituents that cannot be analyzed at this time. Thus

compliance with the treatment levels for such a waste could easily be measured.

The Agency's preference, ultimately, is to establish only constituent treatment standard levels for these wastes. The Agency believes that compliance with treatment levels provides maximum flexibility in selecting treatment technologies, while ensuring that the technologies are optimally operated to achieve full waste treatment. Therefore, the alternative specified treatment technologies only temporarily satisfy the LDR treatment standards. The treatment standards will revert exclusively to treatment levels at the end of one year.

The Agency is also temporarily suspending inclusion of carbamate waste constituents on the UTS list at 40 CFR 268.48. Not including these constituents on the UTS list eliminates the need to identify and treat them, and monitor compliance with their UTS levels, when they are present as UHCs in characteristic hazardous wastes.

The Agency believes that suspending the carbamate constituents from the UTS list will not have adverse environmental consequences because it will be in effect for only one year. Furthermore, EPA found in the Phase III rulemaking that these constituents are unlikely to occur in wastes generated outside the carbamate production industry (61 FR 15584, April 8, 1996), so today's rule may not cause an adverse environmental impact because carbamate constituents simply are not present in most characteristic hazardous wastes.

III. Good Cause for Foregoing Notice and Comment Requirements

This final rule is being issued without notice and opportunity for public comment. Under the Administrative Procedure Act (APA), 5 U.S.C. 553(b)(B), an agency may forgo notice and comment in promulgating a rule when, according to the APA, the agency for good cause finds (and incorporates the finding and a brief statement of the reasons for that finding into the rules issues) that notice and public comments procedures are impracticable, unnecessary, or contrary to the public interest. For the reasons set forth below, EPA believes it has good cause to find that notice and comment would be unnecessary and contrary to the public interest, and therefore is not required by the APA.

First, the Agency has discovered an unanticipated unavailability of analytic laboratory standards for a number of the carbamate waste constituents covered by the Phase III rule. As a practical matter, therefore, members of the

regulated community cannot fully document compliance with the requirements of the treatment standard through no fault of their own. For the same reason, EPA cannot ascertain compliance for these constituents.

In addition, this unavailability of analytic standards is likely to create a serious disruption in the production of at least some carbamate pesticides. Although the treatment of the restricted carbamate wastes through biodegradation, carbon adsorption, chemical oxidation (for wastewaters), and combustion is both possible and highly effective, certification that the treatment actually meets the treatment standard levels may not be possible in many instances. Without the certification, disposal of the residuals left after treatment cannot legally occur. The Agency believes this situation will quickly impede production of certain pesticides, since legal disposal of some carbamate wastes will no longer be available. See *Steel Manufacturers Ass'n v. EPA*, 27 F.3d 642, 646-47 (D.C. Cir. 1994) (absence of a treatment standard providing a legal means of disposing of wastes from a process is equivalent to shutting down that process). With regard to the suspension of certain carbamates as underlying hazardous constituents in characteristic (and formerly-characteristic) prohibited wastes, the Agency believes that the same practical difficulties described for listed carbamate wastes would be created.

Finally, today's rule merely removes, on a temporary basis, an administrative hurdle that would impede sound management of certain hazardous wastes. By altering the treatment standard to allow certification of compliance, the Agency can ensure that treatment through use of the BDAT basis of the treatment standard levels actually occurs without delay.

Consequently, EPA today is preserving the core of the promulgated Phase III rule by ensuring that the restricted carbamate wastes are treated by a BDAT before they are land disposed. At the same time, EPA is eliminating the situation which could halt production of carbamate pesticides. For these reasons, EPA believes there is good cause to issue the rule immediately without prior notice and opportunity for comment.

IV. Rationale for Immediate Effective Date

The Agency believes that the regulated community is in the untenable position of having to comply with treatment standards for which there is not an analytical way to measure

compliance. Therefore, it is imperative that relief be immediately provided from those treatment standards. In addition, today's rule does not create additional regulatory requirements; rather, it provides greater flexibility for compliance with treatment standards. For these reasons, EPA finds that good cause exists under section 3010(b)(3) of RCRA, 42 U.S.C. 6903(b)(3), to provide for an immediate effective date. See generally 61 FR at 15662. For the same reasons, EPA finds that there is good cause under 5 U.S.C. 553(b)(3) to waive the requirement that regulations be published at least 30 days before they become effective.

V. Analysis Under Executive Order 12866, the Unfunded Mandates Reform Act of 1995, the Regulatory Flexibility Act, and the Paperwork Reduction Act

This final rule does not create new regulatory requirements; rather, it provides a temporary alternative means to comply with the treatment standards already promulgated. Therefore, this final rule is not a "significant" regulatory action within the meaning of Executive Order 12866.

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104-4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of \$100 million or more in any one year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially

affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

Today's rule contains no Federal mandates (under the regulatory provisions of Title II of the UMRA) for State, local, or tribal governments or the private sector, and does not impose any Federal mandate on State, local, or tribal governments or the private sector within the meaning of the Unfunded Mandates Reform Act of 1995. This final rule does not create new regulatory requirements; rather, it provides a temporary alternative means to comply with the treatment standards already promulgated. EPA has determined that this rule does not contain a Federal mandate that may result in expenditures of \$100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any one year. Thus, today's rule is not subject to the requirements of sections 202 and 205 of the UMRA. For the same reasons, EPA has determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments.

EPA has determined that this rule will not have a significant economic impact on a substantial number of small entities. EPA recognizes that small entities may own and/or operate carbamate pesticide manufacturing operations or TSDFs that will become subject to the requirements of the land disposal restrictions program. However, since such small entities are already subject to the requirements in 40 CFR part 268, this rule does not impose any additional burdens on these small entities, because this rule does not create new regulatory requirements. Rather, it provides a temporary alternative means to comply with the treatment standards already promulgated.

Therefore, EPA provides the following certification under the Regulatory Flexibility Act, as amended by the Small Business Regulatory Enforcement Fairness Act. Pursuant to the provision at 5 U.S.C. 605(b), I hereby certify that this final rule will not have a significant economic impact on a substantial number of small entities. It does not impose any new burdens on small entities. This rule, therefore, does not require a regulatory flexibility analysis.

Today's rule does not contain any new information collection requirements subject to OMB review

under the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq.* Because there are no new information collection requirements in today's rule, an Information Collection Request has not been prepared.

VI. Submission to Congress and the General Accounting Office

Under 5 U.S.C. 801(a)(1)(A) as added by the Small Business Regulatory Enforcement Fairness Act of 1996, EPA submitted a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives and the Comptroller General of the General Accounting Office prior to publication of the rule in today's Federal Register. This rule is not a "major rule" as defined by 5 U.S.C. 804(2).

VII. State Authority

A. *Applicability of Rule in Authorized States*

Under section 3006 of RCRA, EPA may authorize qualified States to administer and enforce the RCRA program within the State. Following authorization, EPA retains enforcement authority under sections 3008, 3013, and 7003 of RCRA, although authorized States have primary enforcement responsibility. The standards and requirements for authorization are found in 40 CFR Part 271.

Prior to HSWA, a State with final authorization administered its hazardous waste program in lieu of EPA administering the Federal program in that State. The Federal requirements no longer applied in the authorized State, and EPA could not issue permits for any facilities that the State was authorized to permit. When new, more stringent Federal requirements were promulgated or enacted, the State was obliged to enact equivalent authority within specified time frames. New Federal requirements did not take effect in an authorized State until the State adopted the requirements as State law.

In contrast, under RCRA section 3006(g) (42 U.S.C. 6926(g)), new requirements and prohibitions imposed by HSWA take effect in authorized States at the same time that they take effect in unauthorized States. EPA is directed to carry out these requirements and prohibitions in authorized States, including the issuance of permits, until the State is granted authorization to do so.

Today's rule is being promulgated pursuant to section 3004(m), of RCRA (42 U.S.C. 6924(m)). Therefore, the Agency is adding today's rule to Table 1 in 40 CFR 271.1(j), which identifies

the Federal program requirements that are promulgated pursuant to HSWA. States may apply for final authorization for the HSWA provisions in Table 1, as discussed in the following section of this preamble.

B. Effect on State Authorization

As noted above, EPA will implement today's rule in authorized States until they modify their programs to adopt these rules and the modification is approved by EPA. Because today's rule is promulgated pursuant to HSWA, a State submitting a program modification may apply to receive interim or final authorization under RCRA section 3006(g)(2) or 3006(b), respectively, on the basis of requirements that are substantially equivalent or equivalent to EPA's. The procedures and schedule for State program modifications for final authorization are described in 40 CFR 271.21. All HSWA interim authorizations will expire January 1, 2003. (See § 271.24 and 57 FR 60132, December 18, 1992.)

In general, EPA recommends that States pay close attention to the sunset date for today's rule. If States are adopting the Phase III rule before the sunset date of today's rule, and applying for authorization, EPA strongly encourages these States to adopt today's rule when they adopt the April 8, 1996, Phase III rule. States should note that after the sunset date, the provisions of this rule will be considered less stringent. Thus, States would be barred under section 3009 of RCRA, from adopting this rule after the date one year from the date of publication of today's rule, and would not be able to receive authorization for it. States that are planning to adopt and become authorized for today's rule and the Phase III rule should factor the sunset date into their rulemaking activities.

Appendix to Preamble—List of Regulated Carbamate Wastes

- K156—Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes.
- K157—Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes.
- K158—Bag house dust, and filter/separation solids from the production of carbamates and carbamoyl oximes.
- K159—Organics from the treatment of thiocarbamate wastes.
- K160—Solids (including filter wastes, separation solids, and spent catalysts) from the production of thiocarbamates and solids from the treatment of thiocarbamate wastes.

- K161—Purification solids (including filtration, evaporation, and centrifugation solids), baghouse dust, and floor sweepings from the production of dithiocarbamate acids and their salts. (This listing does not include K125 or K126.)
- P203 Aldicarb sulfone
- P127 Carbofuran
- P189 Carbosulfan
- P202 m-Cumenyl methylcarbamate
- P191 Dimetilan
- P198 Formetanate hydrochloride
- P197 Formparanate
- P192 Isolan
- P196 Manganese dimethyldithiocarbamate
- P199 Methiocarb
- P190 Metolcarb
- P128 Mexacarbate
- P194 Oxamyl
- P204 Physostigmine
- P188 Physostigmine salicylate
- P201 Promecarb
- P185 Tirpate
- P205 Ziram
- U394 A2213
- U280 Barban
- U278 Bendiocarb
- U364 Bendiocarb phenol
- U271 Benomyl
- U400 Bis(pentamethylene)thiuram tetrasulfide
- U392 Butylate
- U279 Carbaryl
- U372 Carbendazim
- U367 Carbofuran phenol
- U393 Copper dimethyldithiocarbamate
- U386 Cycloate
- U366 Dazomet
- U395 Diethylene glycol, dicarbamate
- U403 Disulfiram
- U390 EPTC
- U407 Ethyl Ziram
- U396 Ferbam
- U375 3-Iodo-2-propynyl n-butylcarbamate
- U384 Metam Sodium
- U365 Molinate
- U391 Pebulate
- U383 Potassium dimethyl dithiocarbamate
- U378 Potassium n-hydroxymethyl-n-methyldithiocarbamate
- U377 Potassium n-methyldithiocarbamate
- U373 Propham
- U411 Propoxur
- U387 Prosulfocarb
- U376 Selenium, tetrakis (dimethyldithiocarbamate)
- U379 Sodium dibutyldithiocarbamate
- U381 Sodium diethyldithiocarbamate
- U382 Sodium dimethyldithiocarbamate
- U277 Sulfallate
- U402 Tetrabutylthiuram disulfide
- U401 Tetramethylthiuram monosulfide
- U410 Thiodicarb
- U409 Thiophanate-methyl
- U389 Triallate
- U404 Triethylamine
- U385 Vernolate

List of Subjects

40 CFR Part 268

Hazardous waste, Reporting and recordkeeping requirements.

40 CFR Part 271

Administrative practice and procedure, Hazardous materials transportation, Hazardous waste, Penalties, Reporting and recordkeeping requirements.

Dated: August 20, 1996.

Carol M. Browner,
Administrator.

For the reasons set forth in the preamble, title 40, chapter I of the Code of Federal Regulations is amended as follows:

PART 268—LAND DISPOSAL RESTRICTIONS

1. The authority citation for part 268 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921, and 6924.

Subpart D—Treatment Standards

2. Section 268.40 is amended by adding paragraph (g) and by revising in the table "Treatment Standards for Hazardous Wastes" the entries for K156–K161, P127, P128, P185, P188–P192, P194, P196–P199, P201–P205, U271, U277–U280, U364–U367, U372, U373, U375–U379, U381–U387, U389–U396, U400–U404, U407, and U409–U411; to read as follows:

§ 268.40 Applicability of treatment standards.

* * * * *

(g) Between August 26, 1996 and August 26, 1997 the treatment standards for the wastes specified in 40 CFR 261.32 as EPA Hazardous Waste numbers K156–K161; and in 40 CFR 261.33 as EPA Hazardous Waste numbers P127, P128, P185, P188–P192, P194, P196–P199, P201–P205, U271, U277–U280, U364–U367, U372, U373, U375–U379, U381–U387, U389–U396, U400–U404, U407, and U409–U411; and soil contaminated with these wastes; may be satisfied by either meeting the constituent concentrations presented in the table "Treatment Standards for Hazardous Wastes" in this section, or by treating the waste by the following technologies: combustion, as defined by the technology code CMBST at § 268.42 Table 1, for nonwastewaters; and, biodegradation as defined by the technology code BIODG, carbon adsorption as defined by the technology code CARBN, chemical oxidation as defined by the technology code CHOXD, or combustion as defined as technology code CMBST at § 268.42 Table 1, for wastewaters.

TREATMENT STANDARDS FOR HAZARDOUS WASTES

[Note: NA means not applicable]

Waste code	Waste description and treatment/regulatory subcategory ¹	Regulated hazardous constituent		Wastewaters Concentration in mg/l ³ or technology code ⁴	Nonwastewaters Concentration in mg/kg ⁵ unless noted as "mg/l" or technology code	
		Common name	CAS ² No.			
K156	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes ¹⁰ .	* * *				
		* * *				
		* * *	Acetonitrile	75-05-8	5.6	1.8
		* * *	Acetophenone	96-86-2	0.010	9.7
		* * *	Aniline	62-53-3	0.81	14
		* * *	Benomyl	17804-35-2	0.056	1.4
		* * *	Benzene	71-43-2	0.14	10
		* * *	Carbaryl	63-25-2	0.006	0.14
		* * *	Carbenzadim	10605-21-7	0.056	1.4
		* * *	Carbofuran	1563-66-2	0.006	0.14
		* * *	Carbosulfan	55285-14-8	0.028	1.4
		* * *	Chlorobenzene	108-90-7	0.057	6.0
		* * *	Chloroform	67-66-3	0.046	6.0
		* * *	o-Dichlorobenzene	95-50-1	0.088	6.0
		* * *	Methomyl	16752-77-5	0.028	0.14
		* * *	Methylene chloride	75-09-2	0.089	30
		* * *	Methyl ethyl ketone	78-93-3	0.28	36
		* * *	Naphthalene	91-20-3	0.059	5.6
		* * *	Phenol	108-95-2	0.039	6.2
		K157	Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes ¹⁰ .	* * *	Pyridine	110-86-1
* * *	Toluene			108-88-3	0.080	10
* * *	Triethylamine			121-44-8	0.081	1.5
* * *	Carbon tetrachloride			56-23-5	0.057	6.0
* * *	Chloroform			67-66-3	0.046	6.0
* * *	Chloromethane			74-87-3	0.19	30
* * *	Methomyl			16752-77-5	0.028	0.14
* * *	Methylene chloride			75-09-2	0.089	30
* * *	Methyl ethyl ketone			78-93-3	0.28	36
* * *	o-Phenylenediamine			95-54-5	0.056	5.6
* * *	Pyridine			110-86-1	0.014	16
* * *	Triethylamine			121-44-8	0.081	1.5
* * *	Benomyl			17804-35-2	0.056	1.4
* * *	Benzene			71-43-2	0.14	10
K158	Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes ¹⁰ .			* * *	Carbenzadim	10605-21-7
		* * *	Carbofuran	1563-66-2	0.006	0.14
		* * *	Carbosulfan	55285-14-8	0.028	1.4
		* * *	Chloroform	67-66-3	0.046	6.0
		* * *	Methylene chloride	75-09-2	0.089	30
		* * *	Phenol	108-95-2	0.039	6.2
		* * *	Benzene	71-43-2	0.14	10
		* * *	Butylate	2008-41-5	0.003	1.5
		* * *	EPTC (Eptam)	759-94-4	0.003	1.4
		* * *	Molinate	2212-67-1	0.003	1.4
K159	Organics from the treatment of thiocarbamate wastes ¹⁰	* * *				

K160	Solids (including filter wastes, separation solids, and spent catalysts) from the production of thiocarbamates and solids from the treatment of thiocarbamate wastes ¹⁰ .	Pebulate	1114-71-2	0.003	1.4		
		Vernolate	1929-77-7	0.003	1.4		
		Butylate	2008-41-5	0.003	1.5		
K161	Purification solids (including filtration, evaporation, and centrifugation solids), baghouse dust and floor sweepings from the production of dithiocarbamate acids and their salts ¹⁰ .	EPTC (Eptam)	759-94-4	0.003	1.4		
		Molinate	2212-67-1	0.003	1.4		
		Pebulate	1114-71-2	0.003	1.4		
		Toluene	108-88-3	0.080	10		
		Vernolate	1929-77-7	0.003	1.4		
		Antimony	7440-36-0	1.9	2.1 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)	137-30-4	0.028	28		
		Lead	7439-92-1	0.69	0.37 mg/l TCLP		
		Nickel	7440-02-0	3.98	5.0 mg/l TCLP		
Selenium	7782-49-2	0.82	0.16 mg/l TCLP				
P127	* * *	Carbofuran ¹⁰	1563-66-2	0.006	0.14		
		Mexacarbate ¹⁰	315-18-4	0.056	1.4		
		Tirpate ¹⁰	26419-73-8	0.056	0.28		
		Physostigmine salicylate ¹⁰	57-64-7	0.056	1.4		
		Carbosulfan ¹⁰	55285-14-8	0.028	1.4		
		Metolcarb ¹⁰	1129-41-5	0.056	1.4		
		Dimetilan ¹⁰	644-64-4	0.056	1.4		
		Isolan ¹⁰	119-38-0	0.056	1.4		
		Oxamyl ¹⁰	23135-22-0	0.056	0.28		
		Dithiocarbamates (total)	NA	0.028	28		
		Formparanate ¹⁰	17702-57-7	0.056	1.4		
		Formetanate hydrochloride ¹⁰	23422-53-9	0.056	1.4		
		Methiocarb ¹⁰	2032-65-7	0.056	1.4		
		Promecarb ¹⁰	2631-37-0	0.056	1.4		
		m-Cumenyl methylcarbamate ¹⁰	64-00-6	0.056	1.4		
		Aldicarb sulfone ¹⁰	1646-88-4	0.056	0.28		
		Physostigmine ¹⁰	57-47-6	0.056	1.4		
		Ziram ¹⁰	NA	0.028	28		
		U271	* * *	Benomyl ¹⁰	17804-35-2	0.056	1.4
				Sulfallate ¹⁰	NA	0.028	28
				Bendiocarb ¹⁰	22781-23-3	0.056	1.4
				Carbaryl ¹⁰	63-25-2	0.006	0.14
				Barban ¹⁰	101-27-9	0.056	1.4
				Bendiocarb phenol ¹⁰	22961-82-6	0.056	1.4
				Molinate ¹⁰	2212-67-1	0.042	1.4
				Dithiocarbamates (total)	NA	0.028	28
				Carbofuran phenol ¹⁰	1563-38-8	0.056	1.4
				Carbendazim ¹⁰	10605-21-7	0.056	1.4
		U364	* * *	Propham ¹⁰	122-42-9	0.056	1.4
				3-Iodo-2-propynyl n-butylcarbamate ¹⁰	55406-53-6	0.056	1.4
				Dithiocarbamates (total)	NA	0.028	28
				Selenium	7782-49-2	0.82	0.16 mg/l TCLP
				Dithiocarbamates (total)	NA	0.028	28
				Dithiocarbamates (total)	NA	0.028	28
				Potassium n-methylthiocarbamate ¹⁰			
				Potassium n-hydroxymethyl-n-methylthiocarbamate ¹⁰			
U377	* * *	Bendiocarb phenol ¹⁰					
		Molinate ¹⁰					
		Dazomet ¹⁰					
		Carbofuran phenol ¹⁰					
		Carbendazim ¹⁰					
		Propham ¹⁰					
		3-Iodo-2-propynyl n-butylcarbamate ¹⁰					
		Selenium, tetrakis (dimethylthiocarbamate) ¹⁰					
		Potassium n-methylthiocarbamate ¹⁰					
		Potassium n-hydroxymethyl-n-methylthiocarbamate ¹⁰					

TREATMENT STANDARDS FOR HAZARDOUS WASTES—Continued
 [Note: NA means not applicable]

Waste code	Waste description and treatment/regulatory subcategory ¹	Regulated hazardous constituent		Wastewaters		Nonwastewaters	
		Common name	CAS ² No.	Concentration in mg/l ³ or technology code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP" or technology code		
U379	Sodium dibutylthiocarbamate ¹⁰	Dithiocarbamates (total)	NA	0.028	28		
U381	Sodium diethylthiocarbamate ¹⁰	Dithiocarbamates (total)	NA	0.028	28		
U382	Sodium dimethylthiocarbamate ¹⁰	Dithiocarbamates (total)	NA	0.028	28		
U383	Potassium dimethyl dithiocarbamate ¹⁰	Dithiocarbamates (total)	NA	0.028	28		
U384	Metam Sodium ¹⁰	Dithiocarbamates (total)	NA	0.028	28		
U385	Vernolate ¹⁰	Vernolate	1929-77-7	0.042	1.4		
U386	Cycloate ¹⁰	Cycloate	1134-23-2	0.042	1.4		
U387	Prosulfocarb ¹⁰	Prosulfocarb	52888-80-9	0.042	1.4		
U389	Triallate ¹⁰	Triallate	2303-17-5	0.042	1.4		
U390	EPTC ¹⁰	EPTC	759-94-4	0.042	1.4		
U391	Pebulate ¹⁰	Pebulate	1114-71-2	0.042	1.4		
U392	Butylate ¹⁰	Butylate	2008-41-5	0.042	1.4		
U393	Copper dimethylthiocarbamate ¹⁰	Dithiocarbamates (total)	NA	0.028	28		
U394	A2213 ¹⁰	A2213	30558-43-1	0.042	1.4		
U395	Diethylene glycol, dicarbamate ¹⁰	Diethylene glycol, dicarbamate	5952-26-1	0.056	1.4		
U396	Ferbam ¹⁰	Dithiocarbamates (total)	NA	0.028	28		
U400	Bis(pentamethylene)thiuram tetrasulfide ¹⁰	Dithiocarbamates (total)	NA	0.028	28		
U401	Tetramethyl thiuram monosulfide ¹⁰	Dithiocarbamates (total)	NA	0.028	28		
U402	Tetrabutylthiuram disulfide ¹⁰	Dithiocarbamates (total)	NA	0.028	28		
U403	Disulfiram ¹⁰	Dithiocarbamates (total)	NA	0.028	28		
U404	Triethylamine ¹⁰	Triethylamine	101-44-8	0.081	1.5		
U407	Ethyl Ziram ¹⁰	Dithiocarbamates (total)	NA	0.028	28		
U409	Thiophanate-methyl ¹⁰	Thiophanate-methyl	23564-05-8	0.056	1.4		
U410	Thiodicarb ¹⁰	Thiodicarb	59669-26-0	0.019	1.4		
U411	Propoxur ¹⁰	Propoxur	114-26-1	0.056	1.4		

Notes to the Table:

- ¹The waste descriptions provided in this table do not replace waste descriptions in 40 CFR part 261. Descriptions of Treatment/Regulatory Subcategories are provided, as needed, to distinguish between applicability of different standards.
- ²CAS means Chemical Abstract Services. When the waste code and/or regulated constituents are described as a combination of a chemical with its salts and/or esters, the CAS number is given for the parent compound only.
- ³Concentration standards for wastewaters are expressed in mg/l and are based on analysis of composite samples.
- ⁴All treatment standards expressed as a Technology Code or combination of Technology Codes are explained in detail in 40 CFR 268.42 Table 1—Technology Codes and Descriptions of Technology-Based Standards.
- ⁵Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of 40 CFR Part 264, Subpart O, or Part 265, Subpart O, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in 40 CFR 268.40(d). All concentration standards for nonwastewaters are based on analysis of grab samples.

* Between August 26, 1996 and August 27, 1997, the treatment standard for this waste may be satisfied by either meeting the constituent concentrations in this table or by treating the waste by the specified technologies: combustion, as defined by the technology code CMBST at §268.42 Table 1, for nonwastewaters; and, biodegradation as defined by the technology code BIODG, carbon adsorption as defined by the technology code CARBN, chemical oxidation as defined by the technology code CHOXD, or combustion as defined as technology code CMBST at §268.42 Table 1, for wastewaters.

4. In § 268.48, the table in paragraph (a) is amended by adding footnote number "6" in column one, under the heading *Regulated Constituents/ Common Name*, under I. Organic constituents, after the following chemical names: "2213"; "Aldicarb sulfone"; "Barban"; "Bendiocarb"; "Bendiocarb phenol"; "Benomyl"; "Butylate"; "Carbaryl"; "Carbenzadim"; "Carbofuran"; "Carbofuran phenol"; "Carbosulfan"; "m-Cumenyl methylcarbamate"; "Cycloate"; "Diethylene glycol, dicarbamate"; "Dimetilan"; "Dithiocarbamates (total)"; "EPTC"; "Formetanate hydrochloride"; "Formparanate"; "3-Iodo-2-propynyl n-butylcarbamate"; "Isolan"; "Methiocarb"; "Methomyl"; "Metolcarb"; "Mexacarbate";

"Molinate"; "Oxamyl"; "Pebulate"; "o-Phenylenediamine"; "Physostigmine"; "Physostigmine salicylate"; "Promecarb"; "Propham"; "Propoxur"; "Prosulfocarb"; "Thiodicarb"; "Thiophanate-methyl"; "Tirpate"; "Triallate"; "Triethylamine"; and, "Vernolate"; and adding footnote 6 at the end of the table to read as follows:

§ 268.48 Universal treatment standards.

(a) * * *

⁶ Between August 26, 1996 and August 26, 1997, these constituents are not underlying hazardous constituents as defined at § 268.2(i).

PART 271—REQUIREMENTS FOR AUTHORIZATION OF STATE HAZARDOUS WASTE PROGRAMS

5. The authority citation for part 271 continues to read as follows:

Authority: 42 U.S.C. 9602; 33 U.S.C. 1321 and 1361.

Subpart A—Requirements for Final Authorization

6. Section 271.1(j) is amended by adding the following entry to Table 1 in chronological order by date of publication in the Federal Register to read as follows:

§ 271.1 Purpose and scope.

* * * * *

(j) * * *

TABLE 1.—REGULATIONS IMPLEMENTING THE HAZARDOUS AND SOLID WASTE AMENDMENTS OF 1984

Promulgation date	Title of regulation	Federal Register reference	Effective date
* * * * *	* * * * *	* * * * *	* * * * *
Aug. 26, 1996	Emergency Revision of the Land Disposal Restrictions (LDR) Phase III Treatment Standards for Listed Hazardous Wastes from Carbamate Production.	61 FR (Insert page numbers).	Aug. 26, 1996 until Aug. 26, 1997.
* * * * *	* * * * *	* * * * *	* * * * *