UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MEMORANDUM

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

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

FROM: Michael Shapiro, Director
Office of Solid Waste

TO: Hazardous Waste Management Directors, Regions I - X

On April 8, 1996, treatment standards were promulgated in the LDR Phase III final rule for a number of listed hazardous wastes associated with the production of carbamate pesticides ("carbamate wastes") (61 FR 15566). These treatment standards became effective July 8. The Agency recently has become fully aware, however, of a serious compliance monitoring problem requiring the revision of the carbamate nonwastewater treatment standards for one year as explained fully below. EPA intends to promulgate an immediately effective final rule in the next few weeks to resolve this unanticipated problem. This memorandum provides information on the upcoming revisions to the treatment standards for carbamate wastes that should be considered in Regional decision-making until this immediately effective final rule is promulgated

Background

The Phase III final rule promulgated treatment standards for 64 listed hazardous wastes associated with carbamate pesticide production (see Attachment). The concentration-based 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 actual levels for nonwastewaters are based on the performance of combustion technology, which EPA believes will destroy the hazardous constituents to non-detectable levels. To account for variability, the standard thus is based on the detection limit for the 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, we became aware that commenters thought that 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. At that time, however, we believed that analytical methods had been recommended for all carbamate waste constituents (in fact, the LDR program distributed a table to commenters and others who called about the issue, which gave recommended EPA test methods for all the newly regulated constituents). The program also believed that analytical standards would become available prior to the Phase III effective date, as laboratories geared up for the new regulation

The Current Problem

The waste management industry once again raised to the Agency these analytic problems shortly before the effective date of the Phase III rule. They acknowledge that methods exist to analyze carbamate wastes, however the laboratories are not prepared at this time to do some of the analyses. Furthermore, they confirm that analytic standards have not been developed for 16 carbamate waste constituents. The Agency agrees that the waste management industry has been unintentionally left in a quandary: they must certify compliance with the carbamate waste treatment standards but there seem to be no commercial laboratories prepared to perform the necessary analyses, (EPA is also left in a quandary for the same reason: we are unable to document that the treatment standard has or has not been achieved for those constituents which cannot be analyzed.)

The problem is complicated by the current LDR rules that pertain to regulation of underlying hazardous constituents (UHCs) in characteristic (or formerly characteristic) wastes. Because 42 new carbamate constituents have been added to the UTS list, they thus become UHCs. Under the regulations promulgated 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, 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 characteristics, but also all UHCs reasonably expected to be present in the hazardous waste at the point of generation. Because analytical capacity is not commercially available for a number of these carbamate waste constituents, the generator may not be able to provide this required information, and the treatment facility will not be able to monitor compliance with the standards for the carbamate UHCs. Furthermore, it is not at all clear when the laboratories will fully gear up to be able to perform the necessary analyses. We have been informed that land disposal facilities have already refused to accept certain incineration residues because compliance with the carbamate waste UTS levels cannot be certified.

The Revised Treatment Standards

Therefore, the Agency intends to revise the treatment standards for carbamate wastes for a short period of time (i.e., one year), thereby allowing time for analytical standards to be developed, and for laboratories to gear up to analyze carbamate constituents. In addition, EPA is planning to eliminate the carbamate constituents from the nonwastewater column of the UTS list, thereby eliminating the need to treat and monitor compliance with the UTS levels when the constituents are present as UHCs in nonwastewater characteristic wastes.

The revised treatment standard would be expressed as a required method of treatment: combustion (see the definition of CMBST at 40 CFR 268.42, Table 1). Since combustion will destroy all hazardous constituents to below the limit of detection, we think that this standard fully satisfies the core requirement of the LDR program that hazardous wastes be effectively pretreated before they are land disposed. Should a facility want to use an alternative method of treatment during the year, it could petition the Agency for an equivalency determination under 40 CFR 268.42 Of course, we would expect to grant an equivalency determination to any petitioner who achieved the originally promulgated UTS levels for these wastes through use of an alternative technology

As noted above, the Agency believes that the relief that will be provided with respect to the treatment standards for listed carbamate nonwastewaters in the upcoming emergency rule will not be a detriment to the environment. This is because the Phase III nonwastewater treatment levels were based on detection limits, and combustion--the specified treatment method under the revised treatment standard--achieves total destruction of organic constituents. Furthermore, EPA already 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 that short-term removal from the list of UHCs should not have adverse environmental consequences.

It should be noted, however, that after one year, the carbamate nonwastewater treatment standards would revert back to those promulgated in the Phase III final rule. At that time, the constituents in carbamate wastes would be added to the nonwastewater column of the UTS list (and would become UHCs requiring identification, treatment, and compliance monitoring when they are present in nonwastewater characteristic wastes). In addition, the nonwastewater treatment levels would apply at that time (rather than the specified method of treatment), thereby allowing more flexibility in selecting a technology to treat these wastes.

If you have questions or comments about this approach, please contact James R. Berlow, Director, Hazardous Waste, Minimization and Management Division, at (703)

308-8414, or Shaun McGarvey, the LDR staff person on this issue, at (703) 308-8603. Please submit comments as soon as possible so that they can be considered in preparing the emergency rule addressing this issue, We expect to try to promulgate these changes very quickly (possibly in a matter of weeks), so your immediate attention would be appreciated.

Attachment

Attachment

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 thiocarbarnate 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.)

ACUTE HAZARDOUS WASTES (P WASTE CODES)

P203	Aldicarb sulfone
P127	Carbofuran
P189	Carbosulfan
P202	m-Cumenyl methylcafbamate
P191	Dimetilan
P198	Formetanate hydrochloride
P197	Formparanate
P192	Isolan
P196	Manganese dimethyldithiocarbarmate
P199	Methocarb
P190	Metolcarb
P128	Mexacarbate
P194	Oxamyl
P204	Physostigmine

P188	Physostigmine salicylate
P201	Promecarb
P185	Tirpate
P205	Ziram

TOXIC HAZARDOUS WASTES

U394	A2213
L280	Barban
U278	Bendiocarb
U364	Bendiocarb phenol
U271	Benomyl
U400	Bis(pentamethyiene)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	Tetramethyithiuram monosulfide

U410	Thiodicarb
U409	Thiophanate-methyl