

US EPA ARCHIVE DOCUMENT

DCN PH4P039

COMMENTS AWPI

RESPONDER JL

SUBJECT WOOD2

SUBJNUM 039

COMMENTS LDRs FOR NON-WASTEWATERS SHOULD NOT BE BASED ON TOTAL CONCENTRATIONS In 1986, when the Agency first promulgated LDRs for dioxin and furan wastes (F020-23 and F026-28), the 1 ppb LDRs were promulgated as leachate levels not as total concentrations. Under the Universal Treatment Standards promulgated in 1994, these LDRs became total concentrations. Now, soils containing constituents in excess of UTSs must be treated, regardless of leachability. This ignores the effects of geochemistry and the corresponding limited mobility or availability of constituents of concern previously recognized by the Agency. At the Selma Wood Treater CERCLA site, 13,000 cubic yards of arsenic soils were successfully immobilized using conventional stabilization techniques in tests performed by EPA's Office of Research and Development (ORD), Risk Reduction and Engineering Lab (RREL). In the ROD for the Selma site, leachable standards for the metal constituents and for pentachlorophenol were specified in lieu of total concentrations. COMMENT: EPA should either raise the UTSs to reflect the differences in basing the standards on total concentrations, or base the LDRs for non-wastewaters on leachate concentrations.

RESPONSE

The commenter is asking EPA to set UTS limits for dioxin and furan (D/F) hazardous constituents in F032 that are based on leachate concentrations as measured by the TCLP rather than concentrations measured by the total constituent analyses. The commenter believes that TCLP is a better performance indicator for D/F since these constituents are not that mobile.

EPA is not persuaded by this comment. A leaching standard for toxic organics like D/F comports badly with a statutory standard requiring that short and long-term threats to the human health and the environment are "minimized." Congress expected technology-based treatment to be used to satisfy this requirement, in particular, that hazardous organics be destroyed prior to disposal. (125 Congressional Record S 9178 (July 25, 1984) (statement of Sen. Chaffee). Given that dioxins are the most toxic of all of the Appendix 8 hazardous constituents, destruction of these constituents is particularly appropriate. EPA also believes that there are a number of destruction and recovery technologies that can meet the promulgated limits. EPA is thus promulgating UTS limits as proposed.

DCN PH2A009

COMMENTER Dow Chemical

RESPONDER JLABIOSA

SUBJECT WOOD2

SUBJNUM 009

COMMENT Dow disagrees with EPA that F024 and F032 are similar enough to necessarily warrant the same LDR treatment standard. EPA has stated that F024 and F032 are different and Dow agrees with statement. These wastes were listed as different waste codes since they are generated in significantly different processes and have fundamentally different scopes. F024 is essentially some of the wastes from the production of chlorinated aliphatic hydrocarbons with one to five carbon atoms by free radical catalyzed processes. F032 is essentially some of the wastewater from wood preservatives associated with chlorophenolic compound formulations. Note that chlorophenolic compounds are not aliphatic and have at least six carbon atoms. This requires that the carbon atom bound to the chlorine atom in the F024 wastes is unsaturated, putting these materials into a completely different class of compounds from the unsaturated carbon atom bound to the chlorine in the F032 waste description. Further, the F032 waste listing only includes wastewater, while no such critical limitation appears in the F024 waste listing. Thus, three of the fundamental aspects of the definitions of these two waste codes differ. These distinctions support EPA's long held view that these two waste codes are fundamentally different. (See 40 CFR 261.31) This distinction is further supported when EPA considers the maximum D/F concentrations, the only data contained in this part of the notice.

RESPONSE

EPA acknowledges that these wastes are different with regard to the concentrations and types of D/F homologues and isomers present in these two waste as well as other precursor hazardous constituents to the formation of D/F in combustion devices. EPA also acknowledges that separate listing determinations granted separate RCRA waste code listing classifications for each of these two wastes. EPA emphasizes, however, that both wastes are toxic wastes, listed under the 40 CFR 261 Part D, and the combustion of these wastes is currently allowed in combustion devices that meet a four 9's Destruction Removal Efficiency performance. The Penta Task Force has asked EPA to adopt the same compliance treatment standard of combustion currently applicable to F024. Adoption of the "CMBST" would waive the monitoring of D/F constituents in F032 residues resulting from well designed and well operated combustion devices. EPA codified such treatment compliance alternative as incineration or "INCIN" in the 40 CFR 264 Subpart O unit (see Third Third rule (see 55 FR 22580-1, June 1, 1990)). EPA later

amended the standard to a CMBST standard in the Phase 3 rulemaking. EPA believes that such action was inappropriate for F024 and is thus, recalling in this rulemaking such treatment standard to limit the combustion of F024 to those devices which EPA can prescribe operating controls that ensure that they are well designed and operated.

EPA has authority under Section 3004 (m) to address short-term concerns that may result from the combustion of these wastes and in particular, the potential emissions of D/F from combustion devices. In addition, EPA has authority under 264 Subpart O and 266 to impose technological controls that can ensure that the destruction and removal of Priority Hazardous Organic Pollutants such as D/F and other D/F precursors in F032 and F024 is accomplished during combustion. EPA believes that for the purpose of implementing the "CMBST" standard the proposed suboption calling for the adoption of the proposed MACT air emission limit for D/F may impose a regulatory burden on the combustion industry since the merits of such proposed limits still being deliberated under the MACT rule. The MACT rule is scheduled for promulgation in April 1988. EPA believes that in the interim the available RCRA permit Omnibus authorities under 266 and 264 can be used to ensure that compliance with the proposed treatment alternative of "CMBST" is conducted in well designed and operated units and that the "CMBST" practice itself is protective of the human health and the environment. As a result of this determination and authorities, EPA has withdrawn the proposed suboptions 1 and 2. EPA has promulgated, instead, a compliance treatment standard of "CMBST" that is limited to those units operated under 266 and 264 Subpart O.

DCN PH2A011  
COMMENTER Vinyl Institute  
RESPONDER JL  
SUBJECT WOOD2  
SUBJNUM 011

COMMENT On May 10, 1996, EPA requested comments on, inter alia, proposed treatment standards on wood preserving wastes, F032, under Phase IV of the Land Disposal Restrictions (LDR) of the Resource Conservation and Recovery Act (RCRA). EPA announced in the comment request notice that modifications to the proposed treatment standard for F032 wastes might require modifications to the treatment standard for chlorinated aliphatic wastes, F024. F024 wastes may be generated by some Vinyl Institute member companies.

RESPONSE

EPA is promulgating a modified treatment combustion alternative of "CMBST" for F032 that limits the combustion of F032 in devices regulated under the 40 CFR 266 and 264 Subpart O. As proposed, EPA is amending the existing "CMBST" compliance treatment alternative for F024 and promulgating instead, the same "CMBST" treatment alternative finalized for F032 in today's rule. EPA notes that F024 combusted in incinerators operated in compliance with the 40 CFR 265 Subpart O do not qualify for these alternative "CMBST" treatment alternative unless the facility can demonstrate that the combustion efficiency of the Part 265 incinerator is similar to or better than those under Part 264 (incinerators) or Part 266 (BIFs). EPA will use 40 CFR 268.42(b) to examine and determine how equivalent Part 265 incinerators are to Part 264 incinerators or Part 266 BIFs. (See Final BDAT Background Document for Wood Preserving Wastes F032, F034, and F035, April 16, 1997, and the preamble for a discussion of such determination of equivalent treatment pursuant to 268.42(b).). As a result, facilities or generators who elect to combust F032 and F024 in 40 CFR 265 incinerators must monitor the levels of D/F constituents in the treated residues or rely on expert knowledge as a prerequisite to land disposal.

DCN PH2A015  
COMMENTS CKRC  
RESPONDER JLABIOSA  
SUBJECT WOOD2  
SUBJNUM 015

COMMENT Option 2--CMBST Treatment Standard for Combustion

Units that Achieve D/F Emission Limit of 0.20 ng/DSCM TEO In the NDA Option 2, EPA requests comment on using the proposed HWC MACT 0.20 ng/DSCM (corrected 7% Oxygen)/1 D/F emission standard for RCRA hazardous waste combustion units as a requirement of a CMBST alternative treatment standard. First, CKRC believes it is inappropriate to take proposed limits, which have not been subject to public comment, and use them as a basis to develop regulatory policies in other rulemaking efforts -- particularly a proposal as controversial as the Hazardous Waste Combustion (HWC) MACT rule. Second, CKRC strongly opposes this emission limit as it is based on a faulty assumption that there is a direct correlation between hazardous waste feed and emission rates. CKRC has provided the Agency with significant data contrary to this assumption. For example, CKRC's comments on EPA's Combustion Emissions Technical Resource Document (CETRED) (attachment 2) and a February 6, 1995 study by (attachment 1) Rigo & Rigo Associates, Inc. showed that there is no correlation between chlorine feed and dioxin emissions from cement kilns. Further, the data demonstrates that there is no correlation between emitted hydrocarbon and/or carbon monoxide and dioxin emissions even at levels well in excess of those experienced during upset (COC and trial burn) operating conditions. Consequently, feedrate limitations are inappropriate because they generally are not emission control techniques. This fundamental concern is heightened by the Agency's listing of several "effective controls to inhibit D/F formation" from cement kilns. While some of the general D/F controls raised in the NDA may be appropriate, CKRC has specific concerns about three of the four controls referenced in the notice. APCD Inlet temperatures of less than 400 degF for the flue gas -- CKRC generally agrees that there is a correlation between temperature control and dioxin emissions. However, the Agency's specific reference to 4000F is directly at odds with its reference to 418 degF in its Combustion Emissions Technical Resource Document (CETRED) dated May 1994 and its HWC MACT proposed rule dated April 18, 1996. Further, the BIF rules identify an operating window of APCD temperatures between 450 and 750 degF for cement

kilns with potentially high emissions. These facilities are required to test for D/F during their certification of compliance and trial burn testing and are required to meet a site-specific, risk-based D/F emission limit. This testing as well as numerous other testing data supplied to the Agency, demonstrates that the site-specific element plays an important role in this correlation, calling into question the appropriateness of relying on any one particular temperature number for cement kilns across the board. Further, the Agency's study of D/F emissions during cement kiln trial burns confirms that there is no relation between hazardous waste feed (or POHCs) and emissions.<sup>2</sup> Good Combustion Practices -- CKRC has provided the Agency with a tremendous amount of data, such as the Rigo report cited above, that demonstrates there is no correlation between "good combustion" parameters and dioxin emissions. The reference to "good combustion practices" as a dioxin emissions control is particularly troublesome to CKRC as EPA has traditionally relied on knowledge about and data from incinerators to define "good combustion practices." As discussed below, EPA is in possession of data demonstrating the inappropriateness of applying these same incinerator-based principles to cement kilns considering the extraordinary differences between the two devices. Activated Carbon Injection -- CKRC also is concerned with the Agency's implication about the effectiveness of activated carbon injection in cement kilns as a D/F emission control. Simply because carbon injection may be an effective D/F control in a municipal waste combustor (MWC) does not ensure its effectiveness in a cement kiln. A cement kiln is a very different device with different purposes and operating parameters than an incinerator. The Agency's consistent failure to recognize these crucial differences and existing test data to the contrary cause CKRC to question the appropriateness of technology transfer with regard to activated carbon injection from MWCs to cement kilns. CKRC's concern is further justified in the next sentence of the NDA when EPA states that "...studies conducted at various domestic incineration units such as light weight aggregate kilns and cement kilns..." (NDA electronic version, p. 7). As we have commented consistently in every set of comments submitted to the Agency (attachment 2) as well as during numerous meetings with the EPA staff, a cement kiln is not an incinerator. Considering the completeness of the record on this issue, this inaccurate statement clearly reflects that these issues are more complex

and technical than should be dealt with in this notice. CKRC will comment more fully on both of these control issues in its comments on the proposed HWC MACT rule which will be submitted by the August 19, 1996 comment deadline. CKRC has additional concerns regarding the basis of this option. The NDA discussion continues that "EPA's studies show that at least 50% of the facilities tested for the proposed combustion rule meet this MACT limit." CKRC strongly disputes the validity of this statement and notes that the Agency fails, within the context of this NDA, to consider the extraordinary costs associated with implementation of these limits, which currently are subject to public comment and under significant debate. Finally, the Agency states that "any RCRA permitted or interim status combustion device capable of demonstrating achievability in meeting the dioxin (TEQ) air emission discharge limit would be allowed to combust F024 and F032." Because the Agency has not selected such a standard, CKRC is unable to comment on the ability of a combustion device to demonstrate achievability in meeting the D/F limit. Further, the Agency provides no explanation of or criteria on which to base the "capability to demonstrate achievability." Without such criteria and other implementation discussion, we are unable to substantively comment on this option. CKRC strongly opposes codification of the D/F limit as a requirement of the CMBST alternative because it is based on information that has not been subject to full public notice and comment in the more appropriate HWC MACT rulemaking process which is currently underway. It also embraces erroneous technical support to address global issues with far-reaching policy implications. These fundamental flaws demonstrate that there is no sound basis for going forward with such an approach.

## RESPONSE

EPA's authority to prescribe treatment limits or methods of treatment under the LDR are set under section 3004 (m) of HSWA. Under such HSWA provisions, EPA is directed to set treatment standards that would reduce short- and long-term threats to the human health and the environment. EPA believes that Omnibus permit authorities under RCRA and other available environmental federal/state laws can be used to support the establishment of 3004(m) treatment standards and thus, to prescribed appropriate technological controls on treatment methods prescribed for these wastes. EPA has promulgated specific performance standards for the operation of incinerators combusting certain acutely toxic wastes that contain D/F constituents (see 40 CFR 264.343 (a) (2) and 50 FR 2005, January 14, 1985). EPA has promulgated similar kinds of technology treatment standards for hazardous wastes regulated under 268.42 and



hazardous debris 268.46. These specific treatment standards under 268.42 and 268.46 prescribe treatment methods and EPA has relied on permit authority, federal/state air emission standards, or promulgated operational technology performance requirements to ensure that the technology treatment methods are protective of the human health and the environment.

After reviewing public comments, EPA concurs with the commenter that promulgation of regulatory performance requirements for combustion technologies treating D/F constituents in F032 and F024 will ultimately be addressed in the MACT rule and that finalizing the MACT standards at this time may impose an undue burden on the industry. EPA intends to finalize the proposed MACT standards in April 1998. Like the commenter, EPA believes that until MACT standards are promulgated, ad hoc technological controls can be issued to ensure that the treatment of these wastes is conducted in well designed and well operated combustion devices. EPA also agrees that units regulated under the current Part 266 standards, which includes cement kilns, may be eligible for the alternative standard for CDD and CDFs in these wastes. See preamble for rationale.

DCN PH2A020  
COMMENTS CONDEA  
RESPONDER JLABIOSA  
SUBJECT WOOD2  
SUBJNUM 020

COMMENT CONDEA Vista Company is an occasional generator of F024 waste from its Vinyl Chloride Monomer manufacturing facility. We are writing in response to the May 10, 1996 Federal Register notice regarding Phase IV Land Disposal Restrictions. In this notice, EPA proposes LDR treatment options for wood preserving waste F032, and potentially, the waste of interest to our company, F024.

RESPONSE

EPA is addressing the commenter's concerns in today's final rule.