DCN PH4P027
COMMENTER Rollins Environmental
RESPONDER JLABIOSA
SUBJECT WOOD11
SUBJNUM 027
COMMENT

Commenters were also concerned that including Dioxin/Furans in the treatment standard for F032 wastes will reduce commercially available treatment capacity for these wastes. RES is confident this concern is unfounded. As the largest supplier of commercial incineration services in the U.S. we are confident there is ample commercial treatment capacity available to treat F032 wastes.

RESPONSE

EPA is promulgating treatment standards that set numerical limits for the regulation of Dioxin and Furan (D/F) hazardous constituents in F032. In response to comments from the Penta Task Force and the American Wood Preserving Institute, the EPA has also proposed and is promulgating in today's rule an alternative compliance treatment standard that sets combustion ("CMBST") as a treatment method for D/F constituents in F032.

EPA has promulgated, however, a revised "CMBST" compliance alternative which limits the availability of the "CMBST" to those combustion devices subject to the combustion standards in the 40 CFR 264 Subpart O, or 40 CFR 266, Subpart H. 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 F032 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.

The commenter has stated that there is sufficient treatment capacity to treat F032 wastes. EPA agrees with the comment, except in the cases of F032 contaminated soil and debris, and mixed wood preserving and radioactive wastes. As detailed in today’s preamble, EPA believes there is sufficient capacity for both wood preserving wastewater and nonwastewater hazardous wastes. However, given the lack of available capactiy and other issues associated with soil and debris contaminated with F032, F034, and F035 wood preserving wastes, EPA is granting a two-year variance for these wastes. In addition, EPA has determined that sufficient alternative

treatment capacity is not available for radioactive wastes mixed with wood preserving wastes, and is granting a two-year national capactiy variance.

EPA notes that in 1989, the Agency found difficulty in locating facilities to receive F024 wastes until the treatment standard was amended to include a CMBST alternative. Under the same line of reasoning, the Agency believes that by including the CMBST alternative for F032 wastes, generators will have more flexibility in their choice of treatment facilities. The Agency also believes that by promulgating the CMBST alternative for F032 wastes, constituents of concern will continue to be fully treated, and therefore the standard does not compromise the Agency's commitment to protection of human health and the environment.

DCN PH4P032
COMMENTER Penta Task Force
RESPONDER JLABIOSA
SUBJECT WOOD11
SUBJNUM 032
COMMENT

I. EPA SHOULD NOT ESTABLISH A CONCENTRATION STANDARD FOR DIOXIN AND FURAN CONSTITUENTS OF F032 WASTES.

A. The Stigma Associated With Dioxin-Containing Wastes Will Cause Incineration Facilities to Refuse To Accent F032 Wastes.

In prior rulemakings, EPA has recognized that the stigma associated with wastes that must be treated to meet specific dioxin and furan limits leads to severe capacity shortfalls. See, e.g., 55 Fed.Reg. 22,520, 22,580 (June 1, 1990) (F024 waste). Indeed, in the F024 rulemaking, the Agency found it necessary to revise the standard to delete the dioxin/furan limits and to offer incineration as an alternative technology in order to prod the treatment industry into accepting the wastes. 55 Fed. Reg. at 22,581. As EPA acknowledged in the context of that rulemaking:

[T]he Agency is revising the treatment standards promulgated on June 23, 1989 to specify incineration as a method of treatment for F024 wastes ..... Ordinarily the Agency would not alter a regulatory standard due to industry recalcitrance. In this case, however, the clear existence of a problem, the Agency's desire to have industry resume treatment of these wastes (there was no capacity shortfall until EPA promulgated the Second Third treatment standard), and the statutory prohibitions on disposal and storage (which foreclose all legitimate waste management options) have led EPA to revise the treatment standard.

55 Fed. Reg. at 22,581. Since that time, EPA has promulgated dioxin and furan treatment standards for only one other type of waste that would require incineration --dioxin-containing multi-source leachate (F039).1 In the case of F039 wastes. however, it was clearly understood that very little of the waste would require treatment. See Response to Comments on the Background Document for the Second Third Land Disposal Restrictions in the Proposed Rule Dated January 11, 1989 (54 FR 1056), Vol 3 (June 8, 1989) (response to comment 51 Cii-l) (noting that "[t]heAgency does not expect, however, that dioxins and furans will often be present in multi-source leachate at concentrations requiring treatment"). As such, the stigma and related capacity shortfalls that normally would have been expected to result from the dioxin and furan treatment standard for F039 did not arise in practice.

In the current proposal, EPA has suggested that its combustion

strategy will alleviate the stigma problem. See 60 Fed. Reg. at 43,686. See also Background Document for Capacity Analysis for Land Disposal Restrictions -- Phase IV: Issues Associated with Clean Water Act Treatment Equivalency, and Treatment Standards for Wood Preserving Wastes and Toxicity Characteristic Metal Wastes (Proposed Rule), at 311 (Aug. 1995) (Dkt. No. PH4P-S0292) (hereinafter"Capacity Analysis"). But EPA has failed to explain how its combustion strategy which focuses

1" The BDAT treatment standard for nonwastewater forms of K099 wastes also specifies a 1 ppb limit for dioxin and furan constituents, but that standard is based on chemical oxidation and not incineration. 53 Fed. Reg. 31,138, 31,170 (Aug. 17, 1988). As such. the K099 treatment standard does not raise the stigma issue discussed above.

on reducing dioxin/furan emissions would address the heart of the stigma issue -- the reluctance of incinerator operators to analyze for dioxins and furans in combustion residuals. This reluctance is accounted for by three factors: (1) the cost of analysis for dioxins and furans which can-run as high as $1,500 per sample, (2) the need for multiple burns to reduce dioxin/furans in treatment residuals to low levels. and (3) the considerable concern within the treatment industry that analysis for dioxins/furans in treatment residuals may open up a "Pandora's Box." The last factor arises because dioxins and furans are present in many of the chlorinated waste streams handled by incinerator facilities and are also products of incomplete combustion ("PICs"), and the industry is not currently required to analyze, or otherwise account, for the dioxins/furans in the residuals.

Indeed, data in the docket for this rulemaking strongly suggest that there may be a significant concentration of dioxins/furans in the particulate matter currently removed from emissions by incinerator air pollution control devices. The Draft Combustion Emissions Technical Resource Document (CETRED), (EPA 530-R-94-014) (May 1994), presents data on particulate emission rates for 17 commercial hazardous waste incineration facilities (22 data sets with a total of 133 data points). CETRED, Table 4.3-1. The average particulate emission rate for the facilities was 0.19 grains (gr) of particulate per dry standard cubic foot (dscf) of stack gas where the oxygen level of the gas is 7 percent. Id. The dioxin/furan an emission rate for eight of these facilities is also given in Table 4.9-2 of the CETRED document; the average was 157.5 nanograms (ng)of dioxins/furans per dry standard cubic meter (dscm) of stack gas with a 7 percent oxygen content. The following

equation provides a measure of the average dioxin/furan concentration in the emissions:
{{(157.5 x 10-9 g/dscm) / (0.019 gr/dscf)} x 7000 gr/lb} / 454 g/lb * 0.0283 cm/cf =
3671 ppb,
and is based on the assumption that the dioxins and furans in the stack are in particulate or condensed form. On a toxic equivalency ("TEQ") basis 2, the dioxin/furan concentration in the particulate is roughly 193 ppb and thus would exceed the 1 ppb limits of the proposed rule by some two orders of magnitude.3

2 Table 4.9-2 of the CETRED document provides a value of 8.38 ng/dscm for dioxin/furan emission rates on a TEQ basis. This value is plugged into the above equation to derive the estimate of 193 ppb for dioxin emissions on a TEQ basis.

3 The 1 ppb dioxin/furan treatment standards would translate into 1.85 ppb of total dioxins/furans on a TEQ basis. This results from application of the TEF values for the various dioxin/furan homologues of F032 wastes to the I ppb proposed treatment standard. Thus, the TEF value of 1.0 provides an adjusted TEQ of 1 ppb for TCDD, the TEF value of 0.5 provides an adjusted TEQ of 0.5 ppb for PeCDD, the TEF value of 0.1 ppb provides an adjusted TEQ of 0.1 ppb HxCDD. Similarly, the TEQ values for the furans are: 0.1 ppb for TCDF, 0.5 ppb for PeCDF, and 0.1 ppb for HxCDF. These values conservatively assume that all dioxin and furan congeners are present in the biologically active 2.3 78-chlorinated form.

The CETRED document also suggests that the dioxin/furan content of incinerator particulates may exceed the proposed treatment standards even after their operation is upgraded under the combustion strategy. Two proposals for controlling hazardous waste incinerator emissions are contemplated under the combustion strategy. Under the first proposal, the particulate emission rate for hazardous waste combustion units would be limited to 0.01 gr/dscf and the dioxin/furan emission rate would be limited to 0.17 ng/dscm TEQ. CETRED, v, vii. The dioxin/furan concentrations in the particulates under this first proposal could be as high as 7.4 ppb on a TEQ basis.4

Under the second proposal, the particulate emission rate would be limited to 0.0049 gr/dscf and the dioxin furan emission rate would be limited to 0.12 ng/dscm on a TEQ BASIS. Id., v, vii. The dioxin/furan concentration in the particulate under this second proposal could be as high as 10.7 ppb on a TEQ basis.5 Under either proposal, therefore, the dioxin/furan concentration in the particulates would easily exceed the proposed dioxin/furan treatment standards for nonwastewater forms of F032 waste.

Also, in light of the public hysteria associated with dioxins, it is not entirely clear that the public will accept the burning of any dioxin-containing wastes even after the combustion strategy is implemented. As demonstrated by the recent difficulties experienced by companies attempting to obtain dioxin incinerator permits, the public continues to be opposed to the burning of any dioxin-containing wastes even when the facility can demonstrate that it will meet 99.9999 percent DREs.

RESPONSE

The commenter has raised several arguments seeking to persuade EPA in withdrawing EPA's proposal for regulating Dioxin and Furan (D/F) hazardous constituents in F032. One primary concern raised by the commenter is that there is a "stigma associated with the regulation of D/F in wastes" that may compel incineration facilities to refuse providing combustion services for F032 if EPA adopts the proposed UTS limits for D/F constituents. EPA is not persuaded by the argument that the regulation of D/F should be withdrawn. The D/F constituents proposed for regulation in F032 are present in F032 in significant concentrations above the UTS proposed limits and some of these constituents also supported the listing of F032 as a hazardous wastes. EPA also believes that combustion and non-combustion treatment technologies are demonstrated to reduce the short- and long-term threats to the human health and the environment associated with the disposal of F032. EPA is thus promulgating UTS limits for D/F as proposed.

EPA acknowledges the potential impact the regulation of D/F limits may have on the availability of combustion capacity, in particular, the reluctance of commercial hazardous waste incinerators to accept F032 should EPA codify the UTS limits as the only compliance option for D/F in F032. (EPA's experience of lack of availability of capacity for F 024 wastes after promulgating a standard that included a numerical limit for CDDs shows that the commenter's concerns are rational.) EPA believes, further, that combustion represents the Best Available Treatment Technology for F032. EPA is also persuaded by the Penta Group arguments that an alternative treatment standard of Combustion ("CMBST") may make it easier for combustion facilities to accept these wastes and still treat CDDs to levels reflecting BDAT. (EPA's experience with the F 024 wastes again serves as a guide. The difficulties in finding available treatment stopped after EPA amended the treatment standard to provide a CMBST alternative.) EPA has thus promulgated an alternative treatment standard of combustion ("CMBST") for the regulation of D/F prior to disposal. (See the BDAT Background Document for F032, F034, and F035, and today's final rule preamble for further discussion on EPA's rationale in promulgating this alternative treatment standard.)

The commenter also asked for clarification on how the Combustion Strategy will minimize the stigma for regulating D/F in wastes being combusted. As noted in the Notice of Data Availability (NODA) (see 61 FR 21418, May 10, 1996), EPA has identified the generation and emissions of D/F constituents from combustion devices as potential environmental concern. The concern is legitimate, but is not linked to combustion of these particular wastes. More importantly, CDD emissions from hazardous waste combustion can be controlled to levels that are

protective of human health and the environment. The Agency is presently developing such a standard as part of the rulemaking now being conducted for these units. EPA pointed out that information supporting the proposed MACT lits for reducing the emissions of D/F air pollutants into the atmosphere indicates that about half of the combustion facilities tested by EPA meet the proposed D/F air emissions standard. (See NODA, 61 FR 21438 and the proposed revisions for Hazardous Combustors, 61 FR 17358, April 19, 1996). In the May 10, 1996 NODA, EPA proposed further several options that may minimize the potential formation and emision of D/F from combustion devices. One suboption was to allow any hazardous combustion device to manage F032 and F024 wastes prior to land disposal. EPA also proposed that compliance with the proposed MACT limit of 0.20 ng/SCDF (TEQ) be required for those combustion devices treating F032 and F024. EPA believes that the proposed air emission limit may need to undergo further comment and review and that it would be to preamature to finilize this limit for F032 and F024 wastes. In addition, EPA proposed to limit the combustion of F032 and F024 to combustion devices that have a final Part B permit under 40 CFR 264 and 266. F032 or F024 combusted in incinerators operated in compliance with the 40 CFR 265 Subpart O would 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) under 40 CFR 268.42(b). EPA is promulgating today this proposed third option since it will allow greater access to combustion devices and it also will allow permit writers more latitude to prescribe technical controls and operating conditions that can minimize the potential for generating and emitted amounts of D/F.

The commentor raises a third argument that the commentor believes shall compel EPA to withdraw the proposed UTS limits for specific D/Fconstituents in F032. The commentor's argument focuses on several D/F stack emission rates suggested in the CETRED document, TEQ assumptions, and calculations that the commentor believes suggest that the existing combustion devices may be unable to meet the proposed UTS limits. EPA notes that no a priori methodology yet exists which can predict the exact performance an incineration device will have on the quality of incineration ash, incineration scrubber water, or on the air emissions from combustion devices. The level of performance combustion devices can achieve must be determined through field testing, and by setting in place appropriate technological and operating controls that can optimize the ultimate performance of the combustion device and the allowed emission discharges. EPA feels that the permitting process for incinerators enables EPA and authorized states to assess the need for such controls and to ensure that F032 are treated via combustion practices that are well designed and operated. EPA also believes that the existing rules for boilers and industrial furnaces under 40 CFR Part 266, Subpart H provide the same assurance.

DCN PH4P039
COMMENTER AWPI
RESPONDER JL
SUBJECT WOOD11
SUBJNUM 039
COMMENT EPA IGNORES THE STIGMA ASSOCIATED WITH DIOXIN AND FURAN WASTES

EPA states that incineration should be able to meet the proposed treatment standards for organic wastewaters and non-wastewaters. However, this ignores the stigma associated with dioxin and furan wastes. EPA is aware of the dioxin and furan waste stigma and has acknowledged this it directly and indirectly on several occasions. In 1991, the Agency noted that "the commercial hazardous waste treatment industry tends to shy away from these (dioxin-containing) wastes, thus resulting in unnecessary delays in such treatment." The Agency also acknowledged that incineration capacity is limited and "the possibility of increased capacity in the future is constrained by EPA's "Draft Strategy for Combustion of Hazardous Waste", issued in May 1993. Presently, there is only one incinerator permitted to accept dioxin-containing wastes in the United States (Rollin's APTUS facility in Coffeyville, Kansas). EPA has not issued standards dealing with particulate matter and dioxins/furans under its combustion strategy. Given the strong public resistance to new incinerators, and the huge costs associated with permitting a six-9's facility (several millions of dollars), additional incineration capacity for these wastes is not likely. COMMENT: AWPI believes that sufficient incineration capacity does not exist to meet the actual volumes of F032 wastes.

RESPONSE

EPA is promulgating treatment standards that set numerical limits for the regulation of Dioxin and Furan (D/F) hazardous constituents in F032. In response to comments from the Penta Task Force and the American Wood Preserving Institute, the EPA has also proposed and is promulgating in today's rule an alternative compliance treatment standard that sets combustion ("CMBST") as a treatment method for D/F constituents in F032.

EPA has promulgated, however, a revised "CMBST" compliance alternative which limits the availability of the "CMBST" to those combustion devices in compliance with applicable combustion standards in the 40 CFR 264 Subpart O, or 40 CFR 266, Subpart H. F032 wastes combusted in devices operating under 40 CFR 264 or 266 do not have to monitor the concentrations of D/F left behind in combustion residues. However, the facilities must meet UTS numerical limits applicable to each organic and metal constituent regulated in F032 as a prerequisite to land disposal.

It should be emphasized that facilities seeking the combustion of F032 in an incinerator regulated under a 40 CFR 265 Subpart O do not qualify for a "CMBST" treatment standard, unless they are able to make a demonstration of equivalent performance to a permitted incinerator or to a BIF. F032 residues arising from all other 40 CFR 265 units must meet the applicable UTS numerical limits for each regulated D/F constituent as a prerequisite to land disposal.

DCN PH4P039
COMMENTER AWPI
RESPONDER JL
SUBJECT WOOD11
SUBJNUM 039
COMMENT ALTERNATIVE TREATMENT STANDARDS FOR F032 WASTES EPA has

previously acknowledged that incineration effectively destroyed dioxin and furan constituents. The Agency offered incineration as an alternative technology in the F024 rulemaking although this was in response to "industry recalcitrance" and "the Agency's desire to have industry resume treatment [of F024]. COMMENT: Recognizing the stigma associated with incineration of dioxins and furans, the limited capacity, and the inherent difficulties in analyzing for dioxin and furan constituents, EPA should promulgate an alternative standard based on incineration in a four-9's combustion unit.

RESPONSE

EPA is promulgating treatment standards that set numerical limits for the regulation of Dioxin and Furan (D/F) hazardous constituents in F032. In reponse to comments from the Penta Task Force and the American Wood Preserving Institute, the EPA has also proposed and is promulgating in today's rule an alternative compliance treatment standard that sets combustion ("CMBST") as a treatment method for D/F constituents in F032.

EPA has promulgated, however, a revised "CMBST" compliance alterantive which limits the availability of the "CMBST" to those combustion devices in compliance with applicable combustion standards in the 40 CFR 264 Subpart O, or 40 CFR 266. F032 wastes combusted in combustion devices operating under 40 CFR 264 or 266 do not have to monitor the concentrations of D/F left behind in combustion residues. However, the facilities must meet UTS numerical limits applicable to each organic and metal constituent regulated in F032 as a prerequisite to land disposal.

It should be emphasized that facilities seeking the combustion of F032 in an incinerator regulated under a 40 CFR 265 Subpart O do not qualify for a "CMBST" treatment standard, unless they are able to make a demonstration of equivalent performance to a permitted incinerator or to a BIF. F032 residues arising from all other 40 CFR 265 units must meet the applicable UTS numerical limits for each regulated D/F constituent as a prerequisite to land disposal.

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 belives that Omnibus permit auhthorities under RCRA and other available environmental federal/state laws can be used to support the establihment of 3004(m) treatment standards and thus, to precribed 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.

DCN PH4P039
COMMENTER AWPI
RESPONDER JLABIOSA
SUBJECT WOOD11
SUBJNUM 039
COMMENT

ALTERNATIVE TECHNOLOGIES TO INCINERATION DO NOT EXIST

EPA states that "any available technology can be used to meet the LDR level. All of the so-called "alternatives" were evaluated by the Office of Technology Assessment (OTA) in 1991. Of the thirteen identified dioxin and furan treatment technologies, only one (rotary kiln incineration) had been developed, permitted and used on a site cleanup.

COMMENT:

AWPI is unaware of any alternative technology that has been developed to commercial scale, permitted to receive, and capable of meeting the 1 ppb PCDD and PCDF UTSs.

INCINERATION FOR F032 IS NOT "AVAILABLE"

EPA has based its treatment standards for F032 on incineration. The Agency estimates that the 49 plants using pentachlorophenol generate 12,600 tons of F032 non-wastewater process sludges and residuals per year. In addition, these plants will generate some 10,500 tons of F032 soil and debris annually.

While not disputing that the technology has been demonstrated, AWPI questions how EPA can state that it is "available." Only one site (APTUS) is permitted to accept dioxin-containing wastes with a 19,500 to 24,500 tons per year capacity. Of that amount, 70 percent is dedicated to TSCA-regulated PCB waste leaving 5,850 to 7,350 tons per year capacity available for other waste streams.

COMMENT:

If one assumes that the APTUS facility will dedicate the remaining 30 percent capacity exclusively to burning F032 waste, and assuming the high end of the capacity range (7,350 tons per year), the APTUS facility comes up short by 15,750 tons per year. One six-9's facility does not constitute "available" technology.

REPSONSE:

The commenter believes that treatment technologies identified in the BDAT Background Document and the OTA document cannot meet the proposed limits for PCDD and PCDF in media contaminated with F032. It appears that the commenter is also referring to how the proposed limits my impact remedial activities that would like to rely on offsite treatment options (e.g. excavation followed by offsite treatment and disposal). EPA agrees with the commenter that most of the remedial treatment technologies described in the OTA document and EPA BDAT document may not currently be developed for offsite treatment since the focus of such treatment processes is to facilitate onsite clean ups.

EPA agrees with the commenter that the proposed limits, can be achieved, generally, via combustion. However, EPA disagrees with the comment that soils treated via alternative

remediation technologies identified by EPA or the OTA report often will fail to achieve the proposed treatment limits for PCDD and PCDF. EPA has determined that energy and chemical intensive technologies such as chemical dehalogenation, thermal desorption, and solvent extraction (specifically, the Critical Fluids 5-pass system) are most likely to enable the treatment of contaminated soils to the UTS limits promulgated today. EPA also believes that difficult to treat soils may be amenable to optimization such that alternative treatment levels pursuant to the 40 CFR 268.44 (h) can be set. (See Final BDAT Background Document for Wood Preserving Wastes F032, F034, and F035.) This determination is based on the treatment of wastes, PCP oils, PCB oils, sludges and soils believed as difficult to treat as F032 and F034 wastes. EPA notes that, for example, thermal desorption can achieve or treat, generally, organics as difficult to treat as PCDD and PCDF well below the UTS limits in matrices such as soils, sludges, and debris. Solvent extraction can also be optimized, presumably, for sludges, oils, and permeable soils. However, EPA acknowledges that thermal desorption or solvent extraction residues pregnant with PCDD and PCDF at concentrations above the UTS limits will have to undergo subsequent treatment via combustion or chemical dehalogenation prior to disposal.

EPA recognizes and acknowledges, further, that there will be soils or contaminated media for which either the treatment standards are inappropriate or simply, cannot be achieved. EPA believes that these difficult to treat soils/contaminated media could be addressed, generally, through a treatability variance in the 40 CFR 268.44 (h). EPA has also listed and briefly discussed other variances and legal venues in the Final BDAT Background Document that could lessen the impact of the treatment standards promulgated today (see Final BDAT Background Document and for Wood Preserving Wastes F032, F034, and F035 and for a citation of appropriate EPA guidance). EPA is thus promulgating, today, treatment standards as proposed.

Another concern expressed by the commenter was what kind of controls EPA intended to impose on the combustion of F032. EPA is clarifying that F032 are toxic wastes and that combustion devices combusting these wastes would be required to meet appropriate combustion controls that would ensure the destruction of PCDD and PCDF. And the combustion of these wastes can take place in either four- nines or in a six-nines Destruction and Removal Efficient combustion device. Because EPA believes that well designed and well operated combustion devices can meet, generally, the promulgated limits, EPA has promulgated an alternative compliance treatment standard of combustion. Compliance with these standard waives the need for monitoring for PCDD and PCDF in combustion residues as long as other hazardous organic and metal constituents are monitored prior to disposal. EPA has limited, however, the availability of this alternative combustion treatment standard to units treating with combustion controls under Part 266, BIFs or Part 264, incinerators. A Part 265, incinerator, who can demonstrate to EPA that the combustion controls at the facility's combustion unit are equivalent to a part 266, BIFs, or Part 264, incinerator, may be able to qualify for the alternative combustion treatment standard provided the Part 265 facility obtains from EPA an equivalent treatment determination pursuant to the 40 CFR Part 268.42(b). (See preamble discussion and Final BDAT Background Document for Wood Preserving Wastes for additional discussion on the implementation of the CMBST standard.) EPA believes that this alternative compliance treatment standard can address the concerns expressed by the commenter on what kind of controls EPA will impose on the combustion of F032 wastes.

DCN PH4P058
COMMENTER JH BAXTER
RESPONDER JL
SUBJECT WOOD11
SUBJNUM 058
COMMENT

In contrast to the concern about treatment delays it viewed as serious in 1991, EPA now curtly dismisses the issue in one sentence, stating that the Agency's "Combustion Strategy" will alleviate this problem. 60 Fed. Reg. at 43682. In reviewing the proposed regulation there is no discussion of the '"Combustion Strategy" or whether facilities legally will be able to accept and treat wastes with the associated dioxin standard using this "Combustion Strategy."

Presumably, the "Combustion Strategy" refers to a draft policy statement issued by EPA on May 18, 1993, that discusses both short and long-term goals for incinerators and industrial furnaces. It is impossible to ascertain how this policy statement can alleviate the unwillingness of the hazardous waste industry to accept F032 wastes if a dioxin standard is imposed. As noted earlier by EPA, refusals by commercial hazardous waste treaters to accept wastestreams with specific dioxin standards are based on public sensitivities and concerns about increased liability. Changes in permitting requirements or incinerator capacity applicable to a dioxin standard for F032 may be goals of EPA's draft policy. These goals currently have not changed public perceptions or decreased liability concerns for waste treaters. No treatment standard should be tied to these changes until they are realities.

In the newly proposed regulation, EPA has identified only one commercial facility currently permitted to combust wastes that may have PCDD and PCDF constituents with concentrations above the treatment standard proposed for F032 wastes. 60 Fed. Reg. at 43681. It is our understanding that this incineration facility has an annual capacity of only 22,000 tons. Seventy percent of this annual capacity is devoted to incineration of TSCA-regulated wastes contaminated with polychlorinated biphenyls. Therefore, this facility has additional annual capacity for only 6,600 tons of wastes from RCRA-regulated disposal activities. This predictable, extreme capacity shortfall is not addressed at all by EPA in the proposal.

RESPONSE

The commenter asked EPA to clarify how the Combustion Strategy may lessen the public perception on the combustion of D/F containing wastes. Under the Combustion Strategy, EPA

has directed permit writers to conduct risk assessments and to determine whether or not the combustion of low level dioxin containing wastes is being conducted in a manner that is protective of the human health and the environment. EPA is exercising EPA's Omnibus permit writer authority under the statute to ensure that the combustion practices are being conducted properly. In addition, EPA has proposed new regulations for Hazardous Waste Combustors, revised Standards, namely the MACT Combustion rule, that would set air emission limits on D/F particulate emissions. (See 61 FR 17358-17536, April 19, 1996.)

Subsequent to the Phase 4 proposal, EPA published a Notice of Data Availability (NODA) that call for three suboptions that may allow the disposal of F032 wastes combusted in well designed and well operated combustion devices without the need that D/F constituents are monitored in the treated waste prior to disposal. EPA proposed three suboptions that would implement the proposed combustion compliance alternative, namely a combustion "CMBST" standard: (1) adoption of the existing "CMBST" standard for F024 (chlorinated aliphatic waste that also contains D/F constituents), (2) a "CMBST" that would compel meeting a proposed MACT limit for D/F air emissions, and (3) "CMBST" that would limit the combustion of F032 and F024 to fully permitted incinerators under 40 CFR 264 Part B. (See 61 FR 21418, May 10, 1996.)

After an exhaustive review of the public comments and due to an outgrowth of the public comments, EPA withdrew suboption 2. EPA also withdrew subption 1 since EPA concluded that adoption of suboption 1 may limit EPA ability to compel risk analyses and incineration studies that can demonstrate that F032 or F024 wastes are being combsuted in manner protective to the human health and the environment. EPA was also persuaded by comments emphasizing that combustion units operating pursuant to 40 CFR 266, Subpart H must meet stringent emission and combustion controls and that EPA Omnibus permit authorities can also be used (for permitted devices) to ensure that the combustion of F032 and F024 is conducted in well designed and well operated combustion devices. EPA has promulgated, therefore, a revised suboption 3 that limits the availability of a "CMBST" for the regulation of D/F constituents regulated in F032 or F024 to those F032 or F024 wastes combusted in either 40 CFR 264 or 266 combustion devices. F032 or F024 wastes combusted in 40 CFR 265 incinerators must meet applicable UTS limits for D/F as a prerequisite to land disposal, unless the owners/operators are able to make a demonstration of equivalent performance to a permitted incinerator or to a BIF.

DCN PH4P058
COMMENTER JH BAXTER
RESPONDER SB
SUBJECT WOOD11
SUBJNUM 058
COMMENT

Along with other members of the wood preservation industry, J.H. Baxter is concerned about the impact of the proposed 1.0 part per billion treatment standard for dioxins and furans in the F032 wastestreams. J.H. Baxter believes there is not adequate capacity for treatment of F032 wastes if a treatment standard is established for dioxin constituents. Even with adequate capacity, the high cost of incineration would make the economic impact on our company and other affected wood treating facilities devastating.

We also have provided comments on the current classification of wood preserving production waste waters as solid waste. J.H. Baxter believes EPA should amend the regulations to exempt recycled wood preserving waste waters from the definition of solid waste.

I. Treatment Standards for F032 Wood Preserving Wastes. EPA's Proposal Does Not Address Capacity Shortfall Issues

J.H. Baxter uses pentachlorophenol (penta) to treat wood products, primarily utility poles and utility pole cross arms, that are exposed to extreme weather conditions for extended periods of service. The treating solution for these wood products consists of penta and oil, usually fuel or diesel grade. Consequently, F032 wastestreams have high energy values. They are accepted at permitted incineration facilities as alternative energy sources. If the proposed regulation with the associated dioxin standard is adopted, the wood preserving industry no longer will be able to utilize the facilities currently permitted to burn F032 wastes.

In 1991 EPA requested data and comments on treatment standards for many newly listed RCRA wastes, including F032 wastes. At that time, the Agency noted that in its experience when dioxin and furan constituents are proposed for regulation in waste-specific treatments, the hazardous waste industry "tends to shy away" from the treating such wastes, creating delays in treatment. 56 Fed. Reg. 55160, 55179 (Oct. 24, 1991). The proposal stated that the delays result"due to the acute sensitivity of the public to these constituents and the increase in liability resulting from handling them. Id. In effect, these wastes are pariahs as far as the public and the hazardous waste treatment industry are concerned. EPA, therefore, solicited ideas on how F032 treatment standards could be constructed, so as to avoid anticipated bottlenecks in treatment

for these wastes.
In the current proposal, EPA notes that many commentors to its 1991 notice expressed concerns that facilities would not accept the F032 waste if the treatment standards include a dioxin limitation. J.H. Baxter shares these concerns. J.H. Baxter has been informed by Laidlaw Environmental, the commercial hazardous waste facility currently handling our F032 wastestreams, that Laidlaw will not accept these wastes if the dioxin standard for F032 wastes is adopted. J.H. Baxter has no doubt that it will be extremely difficult, if not impossible, to obtain timely treatment for F032 wastestreams, should dioxin constituents be regulated.

RESPONSE

EPA is promulgating treatment standards that set numerical limits for the regulation of Dioxin and Furan (D/F) hazardous constituents in F032. In reponse to comments from the The Penta Task Force and the American Wood Preserving Institute, the EPA has also proposed and is promulgating in today's rule an alternative compliance treatment standard that sets combustion ("CMBST") as a treatment method for D/F constituents in F032.

EPA has promulgated, however, a revised "CMBST" compliance alterantive which limits the availability of the "CMBST" to those combustion devices in compliance with applicable combustion standards in the 40 CFR 264 , Subpart O, or 266. F032 wastes combusted in combustion devices operating under 266 or 264 do not have to monitor the concentrations of D/F left behind in combustion residues. However, the facilities must meet UTS numerical limits applicable to each organic and metal constituent regulated in F032 as a prerequisite to land disposal.

It should be emphasized that facilities seeking the combustion of F032 in an incinerator regulated under a 40 CFR 265 Subpart O do not qualify for a "CMBST" treatment standard, unless they are able to make a demonstration of equivalent performance to a permitted incinerator or to a BIF. F032 residues arising from all other 40 CFR 265 units must meet the applicable UTS numerical limits for each regulated D/F constituent as a prerequisite to land disposal.

Although the commentor supported the promulgation of the proposed "CMBST" treatment standard under suboption 1, EPA believes that the adopted final "CMBST" standard fully addresses the commentor's concerns.

DCN PH4P097
COMMENTER Hazardous Waste Management
RESPONDER JL
SUBJECT WOOD11
SUBJNUM 097
COMMENT

> Secondly, the Agency has not adequately considered the extent of the existing capacity to combust this waste as supported by the Agency's own statement that, "EPA has identified one commercial facility currently permitted to combust wastes that may have PCDD and PCDF constituents with concentrations one or two orders of magnitude higher than those levels found in F032" (60 FR 43682). This statement contradicts the Agency's capacity analysis which indicates that there is sufficient incineration capacity for wood preserving waste streams. Currently, there may be incineration capacity for the F034 wastes; however, that capacity does not include capacity for dioxins and furans that are proposed as BDAT for F032. Furthermore, it is not clear how the Agency's Combustion Strategy will alleviate this problem as asserted by the Agency. The establishment of stricter dioxin and furan requirements on combustion facilities will still not alleviate the myth in the eyes of the public that dioxin is the most toxic compound known to man and that no exposure is acceptable. As a result, the Agency should reevaluate this position and either promulgate a two-year capacity variance or remove the dioxins and furans from the F032 treatment standards.

RESPONSE

It appears that the commenter was concerned that since the BDAT model supporting numerical limits for D/F constituents was based on six 9's Destruction and Removal Efficiency (DRE) incinerators, facilities seeking compliance with the numerical limits in RCRA incinerators, cement kilns, or other industrial furnaces achieving a four 9's DRE were likely to fail the proposed UTS limits. It also appears that EPA's discussions in the preamble and the BDAT Background Document for F032, F034, and F035 that at least one facility was permitted to treat D/F containing wastes as difficult to treat as F032 led the commenter to believe that EPA was considering to limit the combustion of F032 to a six 9's DRE -RCRA combustion device. EPA is clarifying, therefore, that in today's rule EPA is not amending §§264.343 (a) (2) or 266.104 (a) (3) to compel the combustion of F032 or F024 in a six 9's Destruction and Removal Efficiency combustion device. Nor has EPA proposed that the combustion of F032 or F024 is only conducted in a six 9's or a four 9's DRE - RCRA combustion device.

It should be noted that although the BDAT combustion technologies supporting the development of UTS limits for D/F regulated in nonwastewater forms of F032 and F024 met a RCRA incineration performance of six 9's DRE performance, the modeled compliance treatment

alternative of "CMBST" was based on the performance a four 9's DRE - RCRA 264 Subpart O, rotary kiln incinerator combusting F024. Data from the F024 incineration study shows that a well designed and well operated four 9's DRE incinerator can also meet the proposed limits of 1 ppb for nonwastewater forms of F024. Facilities seeking the combustion of F032 in an incinerator regulated under a 40 CFR 265 Subpart O do not qualify for a "CMBST" treatment standard, unless they are able to make a demonstration of equivalent performance to a permitted incinerator or to a BIF. F032 residues arising from all other 40 CFR 265 units must meet the applicable UTS numerical limits for each regulated D/F constituent as a prerequisite to land disposal.

The commenter also stated that there is insufficient treatment capacity to treat F032 wastes. As detailed in today's preamble, EPA believes there is sufficient capacity for both wood preserving wastewater and nonwastewater hazardous wastes. However, given the lack of available capactiy and other issues associated with soil and debris contaminated with F032, F034, and F035 wood preserving wastes, EPA is granting a two-year variance for these wastes. In addition, EPA has determined that sufficient alternative treatment capacity is not available for radioactive wastes mixed with wood preserving wastes, and is granting a two-year national capactiy variance.

EPA notes that in 1989, the Agency found difficulty in locating facilities to receive F024 wastes until the treatment standard was amended to include a CMBST alternative. Under the same line of reasoning, the Agency believes that by including the CMBST alternative for F032 wastes, generators will have more flexibility in their choice of treatment facilities. The Agency also believes that by promulgating the CMBST alternative for F032 wastes, constituents of concern will continue to be fully treated, and therefore the standard does not compromise the Agency's commitment to protection of human health and the environment.

DCN PH2A003
COMMENTER The Penta Task Force
RESPONDER JLABIOSA
SUBJECT WOOD11
SUBJNUM 003
COMMENT As explained in our November, 1995 comments, the practical consequences of setting dioxin/furan numerical limits for F032 wastes would be to force wood preserving facilities to send their wastes to the only commercial incineration facility -- the Aptus Incinerator in Coffeyville, Kansas -- that is permitted to treat dioxin-containing waste. The cost would be exorbitant. The most recent quote for incinerating F032 waste at the Aptus facility is $5.63/lb ($11,260/ton). Given the volumes of F032 waste that are expected to require treatment annually -- some 12,600 tons of F032 nonwastewater sludges and residuals (see Capacity Analysis, 3-8) -- the cost of treatment at the Coffeyville facility would be roughly $142 million per year. These prohibitive and unnecessary costs would need to be borne by the relatively few wood preserving sites -- 49 in all -- that would be subject to the rule. In sharp contrast, a CMBST standard would allow F032 waste to be appropriately managed at a fraction of that cost. FOOTNOTE 1/ The Penta Task Force believes that the exorbitantly high cost of incineration at the Coffeyville facility is a direct consequence of the lack of competitive pressure by other combustion facilities. These other facilities have no intention of accepting F032 waste under circumstances where they would be required to analyze their combustion residuals for dioxins and furans. The operator of the Coffeyville facility has argued in comments to the Agency that it supports stringent dioxin/furan limits for F032 waste. But that commenter has provided no health or safety justification to support its position. And we find it difficult to believe that a regulated entity would argue for more stringent regulation unless it believed that a competitive advantage would accrue from such regulation.

RESPONSE

The commenter is concerned that EPA's proposal that some of the proposed regulatory controls on the combustion of F032 and F024 wastes may create a defacto monopoly on treatment of these wastes at high, and unneded cost. Specifically, the commenter is concerned with EPA's proposal to promulgate suboption 2 as prerequisite for the disposal of F032 via a "CMBST" compliance treatment alternative. In general, the commenter is fully supportive of the proposed "CMBST" treatment alternative. The commenter feels that F032 merits a similar " CMBST" treatment alternative as F024 and the commenter asked EPA to clarify its rationale for

proposing potential amendments to the existing "CMBST " treatment alternative.

The final rule provides a means for most combustion units to accept these wastes and satisfy BDAT treatment requirements without specifically analyzing ash for CDDs. In reponse to comments from the The Penta Task Force and the American Wood Preserving Institute, the EPA has proposed and is promulgating in today's rule an alternative compliance treatment standard that sets combustion ("CMBST") as a treatment method for D/F constituents in F032.

The revised "CMBST" compliance alterantive limits the availability of the "CMBST" to those combustion devices in compliance with applicable combustion standards in the 40 CFR Part 264, Subpart O, or 40 CFR Part 266, Subpart H. F032 wastes combusted in combustion devices operating under Parts 266 or 264 do not have to monitor the concentrations of D/F left behind in combustion residues. However, the facilities must meet UTS numerical limits applicable to each organic and metal constituent regulated in F032 as a prerequisite to land disposal. Facilities that qualify for this option are not specifically required to maintain a DRE standard at the same level as required for F020, F021, F022, F023, F026, or F027 under 40 CFR §264.343(a)(2). The revised “CMBST” compliance alternative only requires the use of combustion units that are permitted under either 40 CFR Part 264, Subpart O, or Part 266, Subpart H.

It should be emphasized that facilities seeking the combustion of F032 in an incinerator regulated under a 40 CFR 265 Subpart O do not qualify for a "CMBST" treatment standard, unless they are able to make a demonstration of equivalent performance to a permitted incinerator or to a BIF. F032 residues arising from all other 40 CFR 265 units must meet the applicable UTS numerical limits for each regulated D/F constituent as a prerequisite to land disposal.

DCN PH2A009
COMMENTER Dow Chemical
RESPONDER JLABIOSA
SUBJECT WOOD11
SUBJNUM 009
COMMENT Suboptions 2 and 3 also raise national capacity questions which EPA must address before further consideration of adopting such constraints can proceed In considering the additional limitations described in Suboptions 2 and 3, EPA has not addressed whether sufficient available capacity would remain which is licensed to treat the volume of F024 and F032 currently generated. Dow alone currently generates over 50,000 tons per year of F024 at its U.S. facilities. Implementation of Suboptions 2 or 3 would require a significant portion of that waste volume to be managed offsite in commercial units. Before proceeding, EPA must analyze the U.S. wide generation of the potentially impacted waste codes considering how much available treatment capacity would be available after such requirements would go into effect.
RESPONSE

In today's rulemaking, EPA has withdrawn suboptions 1 and 2, (as explained below) and promulgated a revised version of suboption 3 which enable the implementation of the proposed compliance treatment alternative for the regulation of Dioxin and Furan constituents (D/F) in F032.

Some comments asked EPA to defer the adoption of suboption 2 to the MACT rule. Other comments pointed out that adoption of suboption 3 would preclude the use of industrial boilers and furnaces which in most instances have combustion controls that are more stringent than incineration controls. Another commenter expressed concerns that adoption of suboption 1 may allow the combustion of F032 in incinerator devices operated under 40 CFR 265 which the commenter feels lack adequate regulatory controls to ensure that the design and operational performance capabilities of such devices are adequate to destroy D/F constituents.

EPA finds these comments persuasive. EPA has withdrawn, therefore, the proposed suboptions 1 and 2. EPA has also revised suboption 3 to limit the availability of the proposed combustion "CMBST" compliance treatment standard alternative to those units operated under the 40 CFR 264, Subpart O and 40 CFR 266. Facilities seeking the combustion of F032 in an incinerator regulated under a 40 CFR 265 Subpart O do not qualify for a "CMBST" treatment standard, unless they are able to make a demonstration of equivalent performance to a permitted incinerator or to a BIF (40 CFR §268.42(b)). Although EPA has withdrawn suboption 2, EPA is not precluded from using existing risk analyses methodologies and to require the performance of combustion studies to determine what appropriate controls, if any, should be required during the combustion of F032. EPA believes that ad hoc technological controls can be prescribed to ensure the appropriate combustion of F032. This is because existing RCRA Omnibus permit authorities

under 266 and 264, can be used to address the concern that F032 is treated in well designed and well operated combustion device prior to disposal. This adopted approach may be superseded by the outcome of the proposed MACT limits for D/F arising from combustion devices schedule for promulgation in the April 1998.

Facilities seeking the combustion of F032 in an incinerator regulated under a 40 CFR 265, Subpart O do not qualify for a "CMBST" treatment standard, unless they are able to make a demonstration of equivalent performance to a permitted incinerator or to a BIF. F032 residues arising from all other 40 CFR 265 units must meet the applicable UTS numerical limits for each regulated D/F constituent as a prerequisite to land disposal.

EPA believes that promulgation of this revised suboption 3, fully addresses the concerns of the commenters, fully addresses the capacity concerns raised by the commenters, and that this suboption is protective of the human health and the environment.

DCN PH2A012
COMMENTER Beazer East
RESPONDER JLABIOSA
SUBJECT WOOD11
SUBJNUM 012
COMMENT Specifically, EPA discusses the Penta Task Force's and the American Wood Preserving Institute's concerns that promulgation of concentration limits for dioxin/furan hazardous constituents in Hazardous Waste F032 may discourage commercial incineration facilities from treating this waste. 61 Fed. Reg. 21420. For the record, Beazer also submitted comments which were critical of EPA's proposal to establish dioxin/furan constituent concentration limits as LDRs for F032. It was and continues to be Beazer's belief that selection of incineration as the Best Demonstrated Available Technology ("BDAT") will bring cleanups of wood treating sites to a halt due to a lack of capacity at off-site incineration facilities, negative community reaction for on-site incineration facilities and skyrocketing treatment costs. Beazer recommended that EPA omit the dioxin/furan constituents from the LDR constituents of concern for Hazardous Waste No. F032. Beazer cited several reasons for not including dioxin/furan as part of the F032 LDRs, to wit: (1) EPA's failure to scientifically demonstrate and support the risk from low level exposure to dioxin/furans; (2) the problematic nature of the analytical method used for detecting dioxin/furans; and (3) the non-availability of incineration capacity for treatment of large quantities of soil and debris which may contain F032.
RESPONSE

EPA is not persuaded by the commenter's arguments that the regulation of D/F in F032 is not necessary or that such proposal would delay treatment of F032. EPA points out that these constitents are toxic to the human health and the environment and that D/F constituents also supported the listing of F032 as a hazardous waste under Subtitle C of RCRA. (See Background Document for the Listing of Wood Treater Wastes (F032, F034, and F035)) As the commenter may be aware, EPA's existing guidance documents on the management of contaminated media at wood preserving sites also identify D/F constituents as RCRA constituents to be addressed during the design of clean up treatment options and within the scope of Record of Decisions. Further, EPA existing soil guidance documents for wood preserving sites also identify incineration and thermal desorption as treatment options capable of meeting clean up levels and treatment standards under the LDRs. (See Presumptive Remedies for Soils, Sediments, and Sludges at Wood Treater Sites (Directive 9200.5-162, also published under NTIS: PB-95-963410); Technology Selection Guide for Wood Treater Sites (EPA 540-F-93-020 or Pub.9360.0-46FS); and Contaminants and Remedial Options at Wood Preserving Sites (EPA/600/R-92/182).)

Finally, the majority of commenters were more supportive of EPA's proposal to co-

promulgate both treatment limits and an alternative compliance treatment standard of combustion, "CMBST", for the regulation of D/F in F032. Like EPA, these commenters felt that such approach can create more available capacity, based on empirical experience with F024 wastes.

DCN PH2A012
COMMENTER Beazer
RESPONDER JLABIOSA
SUBJECT WOOD11
SUBJNUM 012
COMMENT In our comments to the proposed Phase IV rulemaking, we discussed the unavailability of any commercial incinerator which could meet the proposed 1 part per billion LDR concentration standard for dioxin/furan, aside from the Aptus facility in Coffeyville, Kansas. The instant proposal would allow incineration or combustion of the wastes by facilities with destruction removal efficiencies ("DRE") of 99.99% rather than the 99.9999% DRE required for "dioxin-listed" wastes. 40 C.F.R. 266.104(a)(3). Theoretically, this alternative LDR treatment standard should increase the availability of incineration and combustion facilities to manage F032 wastes.
RESPONSE

It appears that the commenter was concerned that since the BDAT model supporting numerical limits for D/F constituents was based on six 9's Destruction and Removal Efficiency (DRE) incinerators, facilities seeking compliance with the numerical limits in RCRA incinerators, cement kilns, or other industrial furnaces achieving a four 9's DRE were likely to fail the proposed UTS limits. It also appears from EPA's discussions in the preamble and the BDAT Background Document for F032, F034, and F035 that at least one facility was permitted to treat D/F containing wastes as difficult to treat as F032. This led the commenter to believe that EPA was considering limiting the combustion of F032 to a six 9's DRE-RCRA combustion device. EPA is clarifying, therefore, that in today's rule EPA is not amending 264.343 (a) (2) or 266.104 (a) (3) to compel the combustion of F032 or F024 in a six 9's Destruction and Removal Efficiency combustion device. Nor has EPA proposed that the combustion of F032 or F024 is only conducted in a six 9's or a four 9's DRE - RCRA combustion device.

It should be noted that although the BDAT combustion technologies supporting the development of UTS limits for D/F regulated in nonwastewater forms of F032 and F024 met a RCRA incineration performance of six 9's DRE performance, the modeled compliance treatment alternative of "CMBST" was based on the performance a four 9's DRE - RCRA 264 Subpart O, rotary kiln incinerator combusting F024. Data from the F024 incineration study shows that a well designed and well operated four 9's DRE incinerator can also meet the proposed limits of 1 ppb for nonwastewater forms of F024.

Based on this information, EPA believes that RCRA Omnibus permit authorities can be used under 40 CFR 264, Subpart O and 40 CFR 266 to ensure that the combustion of F032 (and F024) is conducted in a well designed and well operated combustion devices and thus, minimizing the release or generation of D/F during combustion . This adopted approach may be superseded by the outcome of the proposed MACT limits for D/F arising from combustion devices schedule for promulgation in the April 1998.

Facilities seeking the combustion of F032 in an incinerator regulated under a 40 CFR 265, Subpart O do not qualify for a "CMBST" treatment standard, unless they are able to make a demonstration of equivalent performance to a permitted incinerator or to a BIF. F032 residues arising from all other 40 CFR 265 units must meet the applicable UTS numerical limits for each regulated D/F constituent as a prerequisite to land disposal.

EPA believes that promulgation of this revised suboption 3, fully addresses the concerns of the commenters, fully addresses the capacity concerns raised by the commenters, and that this suboption is protective of the human health and the environment.

DCN PH2A013
COMMENTER Georgia Department of Natural Resources, EPD
RESPONDER JLABIOSA
SUBJECT WOOD11
SUBJNUM 013
COMMENT The Georgia Department of Natural Resources, Environmental Protection Division (EPD) has reviewed the above notice of data availability and would like to take this opportunity to provide additional comments on the issue of treatment capacity for soils contaminated with F032 wastes. Specifically, the State of Georgia may be unique in the nation for having a very substantial amount of this material on hand that will likely place a strain on the capacity of virtually any treatment methodology that is ultimately selected for F032 wastes.
RESPONSE

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

DCN PH2A021
COMMENTER J. H. Baxter
RESPONDER JLABIOSA
SUBJECT WOOD11
SUBJNUM 021
COMMENT In its comments on the August 1995 proposal, J.H. Baxter made clear that the cost of incineration and lack of available capacity would impose a real, unwarranted hardship on many members of the wood preserving industry. Suboption 1 appears to address this problem by expanding the number of facilities available to treat F032 wastes. In the very limited time made available to comment on this proposal, J.H. Baxter has tried to ascertain the impact it would have if implemented. We understand from sources in the waste disposal industry that implementation of suboption 1 should result in adequate capacity. Further, J.H. Baxter has been informed that it should not cause the dramatic price increase for disposal of F032 that will occur if the original proposal is implemented. J.H. Baxter has not been able to obtain any meaningful information on the impact of suboptions 2 and 3. Therefore, J.H. Baxter remains very concerned that either of these are unlikely to yield the same benefits. They both will result in a smaller universe of approved combustion facilities and in higher prices. Therefore, J.H. Baxter urges EPA to adopt suboption 1, not suboptions 2 or 3 when the final Phase IV rule is issued. If EPA is interested in proceeding with suboptions 2 or 3, it, along with OMB, must carefully assess the benefits and burdens of these proposals, as well as the impact on the regulated community. To obtain meaningful public input, EPA also should provide additional time for comment.
RESPONSE

Economic considerations have no bearing in the development of treatment standards under the LDR. EPA is relying solely on treatment management alternatives allowed under Section 3004(m) of HSWA, which EPA believes enable the reduction of short- and long-term risks associated with the disposal of Dioxin and Furan (D/F) constituents in F032 wastes.

EPA is promulgating treatment standards that set numerical limits for the regulation of Dioxin and Furan (D/F) hazardous constituents in F032. In response to comments from the Penta Task Force and the American Wood Preserving Institute, the EPA has also proposed and is promulgating in today's rule an alternative compliance treatment standard that sets combustion ("CMBST") as a treatment method for D/F constituents in F032.

EPA has promulgated, however, a revised "CMBST" compliance alternative which limits the availability of the "CMBST" to those combustion devices in compliance with applicable

combustion standards in the 40 CFR 264 , Subpart O, or 266. F032 wastes combusted in combustion devices operating under 266 or 264 do not have to monitor the concentrations of D/F left behind in combustion residues. However, the facilities must meet UTS numerical limits applicable to each organic and metal constituent regulated in F032 as a prerequisite to land disposal.

It should be emphasized that facilities seeking the combustion of F032 in an incinerator regulated under a 40 CFR 265 Subpart O do not qualify for a "CMBST" treatment standard, unless they are able to make a demonstration of equivalent performance to a permitted incinerator or to a BIF. F032 residues arising from all other 40 CFR 265 units must meet the applicable UTS numerical limits for each regulated D/F constituent as a prerequisite to land disposal.

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.