Furthermore, although EPA has maintained that "minimization" of threats does not necessarily require elimination of all possible hazards (see, e.g., 55 FR 6641 and n.1 (February 26, 1990)), the phrase certainly requires something more substantial than merely diluting hazardous constituents.

Allowing the waste's toxicity to be diminished solely by dilution also is at odds with RCRA's enumerated goals and policies. Congress prohibited land disposal of hazardous waste because of "long-term uncertainties associated with land disposal",3 and persistence, toxicity, mobility, and propensity to bioaccumulate" of hazardous constituents in the waste. Sections 3004 (d)(1), (e)(1), (g)(5); Hazardous Waste Treatment Council v. EPA, 886 F. 2d 1355, 1362-63 (D.C. Cir. 1989), cert. denied 111 S. Ct. 139 (1990) (upholding technology-based treatment standards due to the uncertainties inherent in determining when land disposal is protective). Land disposal of untreated hazardous waste is only allowed in "protective" land disposal units, defined as meaning units from which no hazardous constituents will migrate for as long as the waste remains hazardous-to be demonstrated "to a reasonable degree of certainty". Sections 3004 (d)(1), (e)(1), (g)(5). Allowing dilution of hazardous constituents fails to take account of these long-term uncertainties, propensity to bioaccumulate, and the like. As a result, it arguably fails to minimize long-term threats posed by the wastes.

Another provision indicating that Congress did not intend for dilution to be a means of treating toxic hazardous wastes is section 3004(h). Congress, in sections 3004(h) (2) and (3), authorized EPA to postpone LDR prohibition effective dates for up to two years (renewable for up to two additional years for individual facilities) if there is inadequate available treatment capacity for a particular waste. This provision would not have been necessary if dilution could be used as a means of treatment, since it would never take two years (or longer) for a facility to develop the means (i.e. adding dirt or water) of diluting wastes to meet a treatment standard.

B. Legislative History

The legislative history states that dilution is not to be allowed as a means of treating hazardous constituents. See S. Rep. No. 284, 98th Cong. 2d sess. 17, which states that "(t)he dilution of wastes by the addition of other hazardous wastes or any other materials during waste handling, transportation, treatment, or storage is not an acceptable method of treatment to reduce the concentration of hazardous constituents. Only dilution which occurs as a normal part of the process that results in the waste can be taken into account in establishing concentration levels." 4 The House Report is similarly explicit.⁵ The Conference Report similarly states that "the Conferees intend that through the vigorous implementation of the objectives of this Act, land disposal will be eliminated for many wastes and minimized for all others, and that advanced treatment, recycling, incineration and other hazardous waste control technologies should replace land disposal." H. Rep. No. 1133, 98th Cong. 2d sess. 80.

Other legislative history indicates that Congress intended for EPA to adopt technology-based treatment standards: "The requisite levels o(r) methods of treatment established by the Agency should be the best that has (sic) been demonstrated to be achievable. This does not require a BAT-type process

The House Bill did not expressly require pretreatment before disposal, the scheme of the enacted law, but nevertheless illuminates Congressional intent not to allow dilution as a means of treating hazardous constituents.

* * *. The intent here is to require utilization of available technology in lieu of continued land disposal without prior treatment." 130 Cong. Rec. S 9178 (daily ed. July 25, 1984) (statement of Sen. Chaffee introducing the amendment that became section 3004(m)); see also 130 Cong. Rec. 20803 (1984 (statement of Sen. Moynihan on section 3004(m)): "The requisite levels o(r) methods of treatment established by the Agency should be the best that has been demonstrated to be achievable.' The legislative history also indicates that Congress intended treatment to result in destruction of total cyanide and organic hazardous constituents. 130 Cong. Rec. S 9178 (statement of Sen. Chaffee). Dilution of hazardous constituents, of course, is not BDAT, and does not destroy or remove hazardous constituents.

The legislative history consequently strongly supports reading section 3004(m) as not allowing dilution of hazardous constituents.

C. Judicial Opinions

The D.C. Circuit's position in the Third Third opinion is potentially contradictory on this point. At points in the opinion, as noted above, this court states that dilution could satisfy section 3004(m) requirements, perhaps even for hazardous constituents. Elsewhere, however, the court unequivocally stated that dilution does not satisfy section 3004(m) because hazardous constituents are not destroyed, removed, or immobilized:

We wish to make explicit the impact of our holding * * *. First, where dilution to remove the characteristic meets the definition of treatment under section 3004(m)(1), nothing more is required. Second, where dilution removes the characteristic but does not "treat" the waste by reducing the toxicity of hazardous constituents, then the decharacterized waste may be placed in a surface impoundment if and only if the resulting CWA treatment fully complies with RCRA section 3004(m)(l).

In other words, the material that comes out of CWA treatment facilities that employ surface impoundments must remove the hazardous constituents to the same extent that any other treatment facility that complies with RCRA does. 976 F. 2d at 23. Dilution thus cannot be used as the sole means of treating hazardous constituents because it does not remove hazardous constituents from the waste. The court made this explicit in a footnote quantifying the above-quoted passage:

To illustrate RCRA's focus on treatment of the hazardous constituents in a waste, consider a waste stream hazardous by characteristic for cadmium. Both the

^{1984) (}Statement of Sen. Chaffee introducing the amendment that became section 3004(m))

³ See also section 1002(b)(7) which states that "certain classes of land disposal facilities are not capable of assuring long-term containment of certain hazardous wastes, and to avoid substantial risk to human health and the environment, reliance on land disposal should be minimized or eliminated * * *.".

⁴The final sentence undoubtedly refers to situations where dilution occurs as part of the manufacturing process that generates the waste (see House Report quoted in the next footnote), not to dilution that occurs once the waste is generated.

This legislative history was to a bill containing the predecessor provision to section 3004(m). The critical provision would have mandated treatment only of hazardous wastes containing significant concentrations of hazardous constituents, and required treatment to levels that would be "protective", defined as satisfying the no-migration test. EPA does not view these differences as being critically different from the enacted section 3004(m), and so views the Senate legislative history as being relevant to ascertaining Congressional intent regarding dilution of hazardous constituents as a means of achieving treatment standards.

^{5 &}quot;The Committee intends that dilution to a concentration less than the specified thresholds by the addition of other hazardous waste or any other material during waste handling, transportation, treatment, or storage, other than dilution which occurs as a normal part of a manufacturing process, will not be allowed. Such hazardous waste would still be prohibited from land disposal." H. Rep. No. 198, 98th Cong. 1st sess. 34; see also *id.* at 38 ("(t)he Administrator may also impose limitations on the use of waste dilution to avoid disposal restrictions. The late (sic) is particularly important where regulations are based on concentrations of hazardous constituents.")