



STATE OF CONNECTICUT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



April 16, 1986

Mr. Paul Laquerre, P.E.  
Manager, Facility & Environmental Engineering  
United Technologies, Hamilton Standard  
Windsor Locks, CT 06096

RE: CLOSURE OF RCRA SURFACE IMPOUNDMENTS

Dear Mr. Laquerre:

I am writing to advise you that Connecticut's standards for clean closure of a land disposal facility involving listed hazardous wastes {40 CFR 261.31} have been revised effective April 9, 1986. Until recently the Connecticut Department of Environmental Protection's (DEP) clean closure policy required removal of the hazardous waste, waste residue, any liners, and surrounding and underlying contaminated soil. Contaminated soil was defined for these purposes as soil which, when subjected to the EP Toxicity Test Procedures detailed in the RCRA regulations {40 CFR Part 261 App. II} yields hazardous constituent concentrations greater than either 1 or 10 times the applicable drinking water standards, depending on the groundwater class goal established for the area by the Department of Environmental Protection.

Recently it has been brought to our attention that a strict interpretation of the mixture rule contained in the RCRA regulations {40 CFR 261.3(a)(2)(iv)} requires that any soil which contains hazardous constituents derived from a listed hazardous waste must be managed as a listed hazardous waste. As such, it is now necessary to remove contaminated impoundment materials and soils to Connecticut's existing standard or to "background", whichever is more stringent, in order to achieve clean closure in compliance with 40 CFR 265.228(b). While a protocol for establishing background is not yet available from the Environmental Protection Agency (EPA), it is clear that the goal is to determine that there are no hazardous constituents left in place at higher concentrations than existed in the naturally occurring soils on the site.

Although not specifically stated in Connecticut's clean closure policy, groundwater quality must be evaluated before DEP can verify that clean closure has been achieved. Under the old policy groundwater affected by the RCRA unit could not contain hazardous constituents at concentrations greater than either 1 or 10 times the applicable drinking water standards, depending on the groundwater classification. Under the revised policy, hazardous constituent concentrations in the affected groundwater must not exceed either 1 or 10 times drinking water standards, or "background", whichever is more stringent.

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The strict interpretation of the mixture rule also effects where contaminated soils are disposed of. Previously Connecticut had allowed certain slightly contaminated soils to be disposed of at sanitary landfills. The mixture rule requires that all soils contaminated by waste residues or leachate from a listed waste be disposed of at a Part B or Interim Status facility.

Based on the new information and guidance received from EPA, the DEP has revised its policy regarding clean closure. A RCRA facility desiring to "close clean" must remove wastes, waste residues, and surrounding and underlying contaminated soil to levels consistent with either DEP's groundwater classification-based standard, or to background, whichever is more stringent. The facility must also verify that the groundwater quality at the site meets Connecticut's standards, or background, whichever is more stringent. All waste, waste residue, and contaminated soils removed must be manifested to a Part B or Interim Status facility.

An alternative which may be acceptable would be to close as a landfill with all of the wastes, waste residues, and heavily contaminated soils removed. The level of contamination of the soil allowed to remain in place would be determined in accordance with Connecticut's existing clean standard for the particular groundwater classification. Under this alternative Hamilton Standard would be required to provide the post-closure care, monitoring, and financial assurances specified in Connecticut's Hazardous Waste Management Regulations {22a-449(c)-29}.

In Hamilton Standard's situation, closure with some contaminated soil in place, and providing post-closure care and monitoring in accordance with an approved plan, may be the most workable approach. My staff or I are available to meet with you regarding the details of your closure options.

On another matter, let me reiterate the information conveyed in my January 7, 1986, letter to you regarding your groundwater monitoring program. Hamilton Standard's Alternate groundwater monitoring system was implemented pursuant to RCRA regulations {40 CFR Section 265.90(d)(2)}. This regulation requires that the determinations specified in {40 CFR} Section 265.93(d)(4) be made. Specifically it is required that the rate, extent, and degree of contaminant migration be determined. Hamilton Standard must submit a Quality Assessment Plan and initiate the work required as soon as technically feasible.

As a result of the revisions to Connecticut's Clean Closure Policy, the closure plan prepared by Hamilton Standard and Public Noticed on January 17, 1986 cannot be approved. A revised closure and post-closure plan should be submitted to DEP for review and approval within 30 days. Any necessary revisions to Hamilton Standard's Groundwater Monitoring Plan should also be addressed in the revised closure plan.