



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
JOHN F. KENNEDY FEDERAL BUILDING
BOSTON, MASSACHUSETTS 02203-0001

December 22, 1997

Peter M. Zuk, Project Director
Massachusetts Highway Department
Central Artery/Tunnel
One South Station
Boston, MA 02110

re: Central Artery/Tunnel (CA/T) Project
Proposed Treatment Process for Toxicity Characteristic (TC) Soil

Dear Mr. Zuk:

The Hazardous Waste Program Unit of EPA-New England is in receipt of your letter dated December 1, 1997, in which you inform EPA of your intention to implement a process to remove and treat TC-lead contaminated soil from the CA/T Project on a project-wide basis. Implementation of the process is based upon the results of pilot studies performed on 250 cubic yards of TC-lead excavate which successfully demonstrated that all of the TC-lead levels were reduced to levels well below the regulatory limit of 5.0 mg/l. In that letter you state that you intend to treat lead-contaminated soil by applying and mixing a liquid reagent with the TC-soil in order to reduce the leachability of metals by crystal mineralization.

As indicated above, the soil contains lead which may be found at levels that would define it as a hazardous Toxicity Characteristic (TC) waste. The TC rule was promulgated by EPA under the authority of the Hazardous and Solid Waste Amendments (HSWA) and therefore is implemented by EPA in all states until such time that the states become authorized for the rule. The Commonwealth of Massachusetts will be seeking authorization for the TC rule during 1998. The implications of this on your situation would be that if the process is deemed to need a RCRA Part B permit because of the TCLP test, EPA would be the permit issuing authority in states that do not have TC authorization.



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In your correspondence two general treatment scenarios are proposed to implement the previously defined treatment process. These scenarios have been interpreted by the environmental consultants to the CA/T project as being exempt from the RCRA permitting process. The scenarios are as follows: Scenario 1- "Treatment of Confirmed TC-Soil In Situ" proposes to apply the liquid reagent to in-situ soil that exceeds or potentially exceeds the regulatory limit for TC-lead. The reagent will be applied to treat the soil in lifts of 18" to 24" deep. As indicated in the letter, the treatment process occurs almost instantaneously upon application of the reagent and, therefore, when the treated soil is excavated it is no longer considered a RCRA hazardous waste. This treatment scenario, as indicated above, is considered to not need a RCRA permit. EPA agrees with this interpretation since no hazardous waste is being generated under this scenario. Additionally, as indicated in the letter the handling and storage of any treated stockpiled-soil will be done in accordance with the November 1993 Compliance Plan approved by DEP within the AOC ("area of contamination"); Scenario 2- "Treatment of TC-Soil in Tanks and/or Containers" proposes to treat the excavated TC-soil within the identified AOC by applying the reagent to the soil as it is being placed in watertight containers. The treated soil will be stored in the same manner as indicated under Scenario 1. As mentioned previously, this treatment scenario as proposed is considered not to need a RCRA permit. EPA, again, agrees with this interpretation, assuming that the requirements discussed below are met. However, since a hazardous waste is being generated certain generator requirements must in any event be met.

The exclusion from permitting which may apply to your process is found in 40 CFR § 264.1, which states that the requirements of Part 264 - Standards for owners and operators of hazardous waste TSDFs, do not apply to:

A generator accumulating waste on-site in compliance with 40 CFR § 262.34. In connection with such accumulation, the EPA also has determined that permits are not required for generators treating their hazardous wastes in the generators' tanks or containers in conformance with the requirements of § 262.34 and Subparts I or J of Part 265. See 51 Fed. Reg. at 10168 (March 24, 1986), and 40 C.F.R. § 268.7(a)(4).

In order to qualify for this exemption from the permitting requirement, the waste must be treated by the generator and stored for no more than 90 days. In addition, the waste must be treated within tanks or containers as defined in 40 C.F.R. § 260.10. Finally, all parts of your system involved in storing and treating the waste must meet the requirements of 40 C.F.R. § 262.34 and 40 C.F.R. Part 265, Subparts I or J, and

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Subparts AA, BB, and CC. In order to be excluded from the permitting requirement, you need to ensure that all of these requirements are met.

Assuming that you do qualify for the exemption from permitting, you must still meet all applicable generator requirements. In removing any soil which is a hazardous waste, you are considered to be generating a hazardous waste, even if it is then rendered non-hazardous by your treatment. The applicable requirements include obtaining an EPA ID number as the generator of a hazardous waste. 40 C.F.R. § 262.12.

In addition, while the treated soil will be non-hazardous if it does not fail the Toxicity Characteristic, it still must meet all applicable land disposal restrictions (LDR). The current LDR treatment standard for lead for this type of waste is 5.0 mg/l TCLP. As a generator treating wastes subject to LDR, you also will be required to develop and follow a written waste analysis plan pursuant to 40 C.F.R. § 268.7(a)(4).

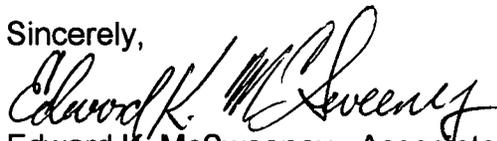
Although an EPA permit will not be required for the treatment process if you meet the requirements stated above, you are reminded that individual state regulations may be both more stringent and broader in scope than the EPA regulations. Therefore, you will need to contact the state for a determination regarding its views on the regulatory status of the treatment process. Since Massachusetts is authorized for the base RCRA program, which includes sections 261, 262, and 264 of 40 CFR, it maintains the authority to make more stringent determinations regarding exclusions.

In summary we believe for reasons previously discussed that an EPA hazardous waste permit will not be required for the above activity under Scenario 2 if you meet the requirements discussed above. However, the Massachusetts Highway Department will be subject to federal generator requirements, including LDR requirements, and also should contact the MADEP to determine if there are provisions that are more stringent or broader in scope than EPA's.

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If you have any questions regarding this or any other issue, please do not hesitate to contact Gary Gosbee, Chief, Hazardous Waste Program Unit at (617) 565-3725. You may also contact Sharon Leitch, of his staff, at (617)565-4879.

Sincerely,



Edward K. McSweeney, Associate Director
Waste Policy

cc: G. Gosbee, Chief, Hazardous Waste Program Unit, EPA
K. Rota, Acting Chief RCRA Enforcement Unit, EPA
J. Fowley, Atty., ORC-EPA
J. Miller, Chief, Waste Branch, MADEP
J. Carrigan, Compliance Assessment Branch, MADEP
J. Duclos, Supervisor, Hazardous Waste Compliance Section, NHDES
D. Sattler, Supervisor, WEED, CTDEP
L. Hellested, Supervising Engineer, RIDEM
S. Ladner, Supervisor, Bureau of Remediation & Waste Management, MEDEP
P. Marshall, Chief, Hazardous Materials Management Division, VTDEC



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mercy
Ben } FILE
Robin }

I spoke w/ Jeff Fowley
on 12.9.97. This
letter was ok w/ him.
Orig - CH Braintree
cc - Regional Policy
Compendium
Cecily Carter
Subjects:
LDR
Universal Wastes

Certified Mail - Return Receipt Requested (Z 203 373 649)

December 2, 1997

Mr. Jeffrey Fowley, Associate Regional Counsel
Office of Regional Counsel (RCA)
U.S. Environmental Protection Agency
J.F.K. Federal Building
Boston, MA 02203

Dear Mr. Fowley:

This is to confirm our telephone conversation of December 1, 1997 regarding the applicability of the federal land disposal restrictions (40 CFR 268) to management of Massachusetts universal wastes as defined in the Massachusetts hazardous waste regulations at 310 CMR 30.1000.

The Massachusetts Department of Environmental Protection (MADEP) recently promulgated regulations governing the management of universal wastes (310 CMR 30.1000). In addition to the three categories of waste originally defined as universal waste by the federal universal waste rule at 40 CFR 273 (i.e., batteries, pesticides, and thermostats), the MADEP included two other categories of waste in its universal waste rule: mercury-containing devices and mercury-containing lamps. Pursuant to Subpart G of 40 CFR 273, an individual state may add new waste types not originally included in 40 CFR 273 at the time it develops its own universal waste rule.

It is my understanding that the land disposal restrictions at 40 CFR 268 do not apply to any category of "Universal Waste" defined at 310 CMR 30.1010 during the time that the waste is managed by "Universal Waste Handlers" as defined in 310 CMR 30.1010. Compliance with the land disposal restrictions at 40 CFR 268 only becomes mandatory at the time that any category of universal waste is subsequently managed by a "Destination Facility" as defined in 310 CMR 30.1010.

Please contact me at 781-849-1800 extension 1278 if you disagree with my summation of our conversation.

Yours truly,

Peter W. Egan
Corporate Compliance Manager

cc: James Patterson, MADEP

cc (1) S. W. Goshore
(1) Suzanne Fowley

fy 76-



Massachusetts Highway Department
Central Artery/Tunnel

S. Leetch, EPA

December 1, 1997

Mr. Kevin McSweeney
Associate Director of Waste Policy
U.S. Environmental Protection Agency - Region I
John F. Kennedy Federal Building
Boston, MA 02203

Subject: Central Artery/Tunnel (CA/T) Project
Proposed Treatment Process for Toxicity Characteristic (TC) Soil

Dear Mr. McSweeney:

As indicated in the enclosed approval letter from the Massachusetts Department of Environmental Protection (DEP), dated September 2, 1997, the CA/T Project recently conducted a pilot study on a process to treat soil which would otherwise require disposal as RCRA hazardous waste due to failure of the Toxicity Characteristic (TC) Leaching Procedure for Lead. The treatment process in question involves applying and mixing a liquid reagent with the TC-soil in order to reduce the leachability of metals by crystal mineralization. The pilot study, which was conducted on 250 cubic yards of TC-lead excavate, was overseen by Camp Dresser & McKee, Inc. (CDM), as the environmental consultant to the CA/T Project. The study successfully demonstrated that all of the TC-lead levels were reduced to well below the regulatory limit of 5 mg/l.

The CA/T Project is aware that EPA has not delegated authority under RCRA to DEP to regulate the federal requirements for TC-waste and, therefore, the proposed treatment of TC-soil is subject to both federal and state oversight. As such, staff from the CA/T Project (i.e., Massachusetts Highway Department and Bechtel/Parsons Brinckerhoff), CDM, and DEP met with EPA on September 8, 1997 to discuss the general requirements of the treatment permitting process under RCRA. Since this meeting, the CA/T Project has evaluated numerous options for implementing the proposed treatment process and has identified two general scenarios which conform to the procurement and contracting requirements of the Project. It is the interpretation of CDM that these two treatment scenarios, which are described in detail below, are both exempt from the RCRA permitting process.

As directed by Mr. Gary Gosbee of EPA at the meeting of September 8th, we are writing to officially inform your office of the CA/T Project's intention to implement the treatment of TC-Lead soil on a Project-wide basis based on the results of our pilot study and the specific details of the two proposed implementation scenarios.

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It is important to note that CDM's evaluation of the regulatory impacts of the treatment process is consistent with the "area of contamination" (AOC) approach as implemented by DEP for the CA/T Right-of-Way in its management of the Project under the Massachusetts' Superfund Program (c. 21E/MCP) as described in the May 21, 1997 DEP/MHD Memorandum of Understanding (MOU, a copy of which is attached. As you are aware, treating the CA/T Right-of-Way as a single AOC was discussed between DEP and EPA during the early stages of the Project and was agreed upon as a prudent soil management practice. Further, DEP concurs with the treatment proposals described below and will oversee characterization, transportation, and disposal of all CA/T soil, including treated soil, per standard practice for the CA/T Project.

Scenario 1 - Treatment of Confirmed TC-Soil In Situ

Under Scenario 1, the treatment process will be used on in-situ soil that has previously been confirmed as exceeding, or potentially exceeding, the regulatory limit for TC-lead. The liquid reagent will be applied to the surface of the contaminated area to treat lifts of 18" to 24" deep. Because the treatment process occurs almost instantaneously upon application of the reagent, as the treated soil is excavated it is not considered a RCRA waste. As each lift is removed, it will be stored on-site within the CA/T Project Right-of-Way (i.e., the AOC). In cases where there is a sufficient stockpile area, the material will be placed on and covered by polyethylene sheeting in the area directly adjacent to the excavation. In cases where there is no stockpile area, the treated soil will be transported in lined truck trailers over a designated truck route to a central CA/T storage location within the AOC under a DEP approved Internal Material Transport Record (IMTR) process. At the central storage location, the soil will either be stored in watertight containers or in stockpiles which are on and covered by polyethylene sheeting. Even though the treated soil is not a RCRA waste, management of the soil stockpile will be consistent with the November 1993 Compliance Plan (copy enclosed) approved by DEP. The soil will then be analyzed for disposal and/or reuse purposes in accordance with the testing requirements indicated in the May 9, 1997 MOU, which includes testing for total and TC metals. After testing is complete, all treated material will be transported to an appropriate off-site disposal/reuse facility under a DEP-approved Bill-of-Lading.



Massachusetts Highway Department
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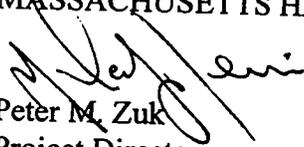
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The CA/T Project, with DEP's concurrence, intends to implement the proposed treatment process on TC-Lead soil (following Scenario 1 or Scenario 2 as applicable) on a Project-wide basis. If you have any questions regarding the information presented herein or if you disagree with our consultant's interpretation, please contact Ms. Gloria A. Fry of MHD at (617) 951-6132.

Sincerely,

MASSACHUSETTS HIGHWAY DEPARTMENT


Peter M. Zuk
Project Director

AL-1.7
097-2395

Enclosures:

1. May 21, 1997 DEP/MHD Memorandum of Understanding
2. DEP Letter Regarding TC-Lead soil Treatment Process, dated 9/2/97
Compliance Plan for Management of RCRA Hazardous Waste and
Potential RCRA Hazardous Waste Soil, CA/T Project

cc: G. Gosbee - EPA
S. Leetch - EPA
S. Lipman - DEP
J. Carrigan - DEP
C. Wasserman - DEP

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As discussed previously, it is our environmental consultant's interpretation that a permit is not required for the treatment process addressed in Scenario 1. Based on the knowledge of the CA/T TC-waste from the treatability study, it is recognized that as the material is excavated it will already have undergone in-situ treatment and will not be a hazardous waste as defined by RCRA.

Scenario 2 - Treatment of TC-Soil in Tanks and/or Containers

Under Scenario 2, the treatment process will be used on excavated soil within the AOC that is confirmed as exceeding, or potentially exceeding, the regulatory limits for TC-Lead. The liquid reagent will be applied to the soil as the soil is being placed in watertight containers (either lined roll-off boxes or lined truck trailers). As discussed earlier, the treatment process will occur in the container almost instantaneously. Therefore, as soon as the soil is treated in a container, it is not considered a RCRA waste. The treated soil will then be transported over a designated truck route to a central CA/T storage location within the AOC under an IMTR and will be stored in the same manner as discussed in Scenario 1. The soil will then be analyzed for disposal and/or reuse purposes in accordance with the testing requirements indicated in the May 9, 1997 MOU, which includes testing for total and TC metals. After testing is complete, all treated material will be transported to an appropriate off-site disposal/reuse facility under a DEP-approved Bill-of-Lading.

Again, it is our environmental consultant's interpretation that a permit is not required for the treatment process addressed in Scenario 2. As described above, the process will be conducted on-site in containers, in accordance with applicable federal regulations. It is acknowledged that the treatment must also conform with the requirements of 40 CFR. Based on the knowledge of the CA/T TC-waste from the treatability study, it is concluded that no soil will be moved outside of the AOC until treatment is complete and the soil no longer meets the definition of a RCRA waste.