



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
ONE CONGRESS STREET SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023**

MEMORANDUM

Date: January 24, 2003
Subj: RIA53 (Excavation Within Foundation) Limited Removal Action Draft Work Plan
From: Patty Marajh-Whittemore *PMAA*
To: Mark Leipert

EPA has reviewed the document entitled *Draft Work Plan RIA 53 (Excavation within Foundation) Limited Removal Action Former Naval Air Station (NAS) South Weymouth South Weymouth, Massachusetts*. The document was prepared for the Navy by Foster Wheeler Environmental Corporation.

It should be noted that excavation at this site has already begun and a Decision Document dated December 23, 2002 has been submitted. The status of the excavation was discussed during the December 3, 2002 EBS Meetings at South Weymouth. It is the understanding of the reviewer, based on this meeting, that the northwest corner of the excavation remained to be done and that confirmatory samples would follow.

General Comments

1. The Work Plan outlines a procedure by which it is proposed to remove petroleum-contaminated soil from within the foundation of former Building 33. The contamination was discovered during previous test pitting. There is one troubling aspect to the proposed removal and confirmation scheme. It is implied that the petroleum contamination found within the foundation is due to a former AST located within a partitioned area of the basement of the building. If the tank was removed, the building demolished, and the foundation backfilled, how is it that the fill is contaminated with petroleum (from the AST or any other source)? Was contaminated soil used to backfill the foundation? Where did the fill originate (e.g., locally on the site, elsewhere on the base, off-base)?

Alternatively, is it believed that the foundation held standing petroleum, and that clean backfill was contaminated when placed in this "pool?" If the AST leaked historically, when the building still stood, and the basement was open, there should be some concern for fuel penetrating the basement floor slab, and entering the soil beneath. The planned removal and confirmation assumes that the release is confined to within the foundation, and this assumption is to be confirmed only by visual inspection (i.e., for stained concrete and/or the structural integrity of the foundation (p. 3, sec. 2.4)). The removal action should include removal of the floor of the foundation and confirmation sampling of the sub-floor soils. (See, for example, the procedure followed for investigation of RIA 5, where sampling was carried out from beneath the floor of the former GCA Stand.)

2. This work plan describes how the Navy plans to address petroleum contamination beneath the foundation of Former Building 33 and how the Navy plans to further investigate sediment north and west of the site. It is unclear, however, what steps the Navy is planning to further investigate and address other benchmark exceedances which have been observed in environmental media at RIA 53. For example, chromium and zinc exceeded ecological benchmarks in surface soil collected at SB14-004 and surface water data showed a number of exceedances of ecological benchmarks.

Specific Comments

1. **Section 1.1, Page 1:** This section states that Building No. 33 "was demolished." Section 2.0 seems to indicate that the basement is still in tact. Please clarify the status of Building 33.
2. **Section 2.0, Page 1:** The last two sentences on this page state: "Also, as part of this removal action, the Navy has directed Foster Wheeler to conduct exploratory sediment sampling at five locations in the stream that is part of Old Mill Stream located on the north side of former Building No. 33. Hot spot removals will be conducted if analytical results are above MCP criteria or background, whichever is greater." Please enhance Figure 1 so that the location of Old Mill Stream and the proposed exploratory samples are indicated. It is EPA understanding that the most conservative of the MCP criteria or background will be used in screening.
3. **Section 2.5, Page 4:** This section indicates that the results of the exploratory sample analyses will be compared to "ecological risk benchmarks and background, whichever is greater." This contradicts Section 2.0 which states that the data will be compared to MCP criteria. Please clarify. Again, it is EPA understanding that the most conservative of the MCP criteria or background will be used in screening. In addition, it is unclear why the exploratory samples will only be analyzed for TAL metals. Previous sampling indicates that a number of organics (primarily PAHs and pesticides) also were measured in sediment samples at levels which exceeded ecological benchmarks.

cc: Dave Barney/SOWEY NAS
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