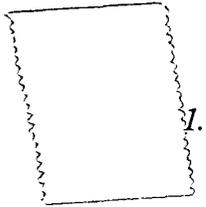


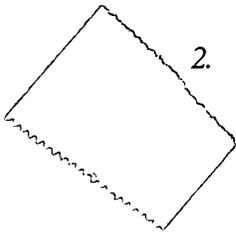
NAVY RESPONSES TO THE CTDEP'S COMMENTS (NOVEMBER 12, 1991)
ON DRAFT IR REPORT (AUGUST 1991)

General Comments



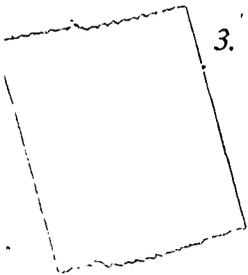
1. *Radiation surveys were performed by Radiation Safety Associates, Inc. (RSA) of Hebron, Connecticut for the Area A Landfill, Goss Cove Landfill and DRMO. It is noted that the surveys are contained in a separately bound report. A copy of this report is required by the State for our records.*

This report has previously been provided.



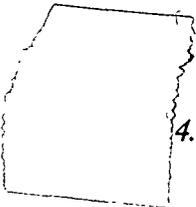
2. *Please supply the report on the geophysical work performed by Weston Geophysical of Westboro, Massachusetts. The RI report noted that the complete geophysical report is contained in a separately bound report.*

This report will be provided.



3. *Background concentrations for inorganics at the Groton Subase were based on the data supplied by the US Geological Survey for the Eastern United States. This data was used as the standard in determining whether site-related inorganic sampling results were exceeded. This is not an acceptable practice because of site-specific variations in geology and soil type. Background samples should be obtained for each site in determining whether site-related activities have had an impact on the site.*

These values were used for illustrative and comparative purposes. Even if we complied with this request, it would not affect the conclusions of the study with respect to human health or environmental impact. Actual metals concentrations were used in these assessments and in the calculation of risk. We would propose to add a discussion to indicate that actual background concentrations at this site are less than the USGS published values.



4. *Section 1.2.3.1, Page 1-5: In 1991, the CTDEP issued a report containing revisions to the 1987 "Connecticut Water Quality Standards and Criteria". This section should be changed to reflect those changes. In addition, the last sentence in the second paragraph noted the following for the ground water classification of GB/GA: "The immediate goal, where appropriate, is to maintain the water at Class GB condition; the long term goal is to restore the water to drinking water quality (GA)". The State's goal is to restore the ground water to drinking water quality for this classification. It is inaccurate to state that there is an immediate goal to maintain the water at a Class GB condition.*

These requested changes to the text will be made.

5. Section 3.7.2, Page 3-20: The ground water flow velocity should be 1.4 feet/day, not 1.7 feet/day as stated in the text.

This change will be made.

6. Section 3.7.5, Page 3-27: There is a monitoring well identified as 2LMW13D listed in the text of this section. This monitoring well does not appear on Figure 3-16. Please identify where this monitoring well is located.

Well 2LMW13S on Figure 3-16 is incorrect. It will be relabelled 2LMW13D.

7. Section 3.7.5, Page 3-35: In constructing the ground water elevation contour map for Area A, offsite wells east of RT12 were pumped for twenty minutes before water level elevations were measured. The rationale for this procedure needs to be explained.

The residential wells were pumped for twenty minutes to allow any drawdown to occur, thereby, the lowest well elevation was measured. The lowest well measurement (lowest elevation) was used because this represents a worst case condition with respect to ground water gradient from offbase wells to on-base wells (e.g., does well drawdown create a condition where on-base ground water contamination could migrate to offsite wells). This explanation will be added to the text.

8. Plate 3-3: Ground water contours shown on this plate indicate that some of the water table elevations are plotted higher than the land surface. Please make appropriate corrections.

This plate will be reviewed.

9. Section 3.8, Page 3-48: Please indicated what source was used within the Town of New London to establish temperatures, variant ranges in temperatures and precipitation for southeastern Connecticut.

The source was the Subase Master Plan. The Master Plan did not specify the specific source of the data.

10. Table 4-1A, Page 4-3: Under the column labeled ARAR for the State of Connecticut, Pesticide Control should be labeled as Pesticide/PCB.

This change with be made.

11. Section 1.2.5.1, Page 4-18: It was noted in the 1983 Initial Assessment Study (IAS) that some of the 55-gallon drums were found leaking. Please note if the soil samples acquired during the remedial investigation were taken from where the observed releases occurred.

There is no specific documentation to indicate exactly where leaking drums were located in this area. However, based on the small size of the area, the three samples provided adequate screening of the site for potential contamination.

12. *Section 4.5, Page 4-25: It is noted that the concentration of delta-BHC and methoxychlor from the surface soil composite sample 4SS3C (Rubble Fill at Bunker A-86) is likely associated with past Area A pesticide applications and not from discrete disposal activities associated with this site. These compounds were not identified in any of the sampling results obtained from the Area A (landfill, wetlands and downstream watercourses) site. Explain the rationale for the conclusion stated.*

The text will be revised to reflect both application or disposal as possibilities. We have recommended that this site proceed to Step II evaluation and in full extent of onsite contamination will be investigated.

13. *Section 4.6.1, Page 4-25: It is noted that the highest concentration of an unknown VOC (possibly toluene) was detected at location SG-21 during the soil gas survey. Future investigations of the northern septic system (which formerly served the Torpedo Shops site) need to identify and quantify what the unknown VOCs are in this area.*

This area could not be sampled because accessibility was difficult with a drill rig. Well 7MW2 was downgradient of this location, and significant concentrations of solvents were not detected in the ground water. A soil sample collected by hand auger will be considered for future investigation.

14. *Section 4.6.2, Page 4-31: An odor was encountered during the drilling of monitor well 7MW1 and was described as that similar to "Simple Green". Identify the components of Simple Green and if the soil sampling results obtained from monitor well 7MW1 correlate with this product.*

Requests to the company which produces "Simple Green" during the preparation of the IR report were unsuccessful in determining the components of this product.

15. *Section 4.8, Page 4-47: It was found that field measured organic vapor readings for surface soil location 14SS1D were detected above background levels for the Obdane site. This surface soil sample came up non-detect under lab analysis for VOCs. Please identify what the background reading was on the PID and what may be the cause or source of the higher background levels.*

The PID reading was 50 ppm at 14SS1D, the background reading was 1 ppm. The cause of the reading is unknown but PIDs do give false positive readings at times.

16. *Section 4.11.1.1, Page 4-58: Identify if any background readings were taken during the performance of the radiation survey at the Area A Landfill. In addition, explain why gamma readings equal to or greater than 20 μ R/hr for each surveyed point was used as a benchmark for further investigation as to the origin of the radiation. It is noted that location 8.5E showed 21 μ R/hr at waist level and 19 μ R/hr in contact with the ground. Explain how the radiation level can be higher at the waist than in contact with the ground.*

In response to this comment, the following paragraphs have been excerpted from the Radiological Assessment Report.

"Location 8.5-E showed 21 $\mu\text{R/hr}$ at waist level and 19 $\mu\text{R/hr}$ in contact with the ground. These levels were traced to a natural rock outcropping in that area. Most rock in New England contain some traces of naturally-occurring uranium, radium, and thorium; finding individual rocks or rock fragments with detectable amounts of radiation is not at all unusual and is not indicative of any radioactive contamination.

Measurements of background radiation were taken outside the perimeter of each area surveyed as well as in several random locations around the base, such as on the golf course (at the corner of Shark Avenue and Wahoo Avenue), at the corner of Thresher Avenue and Corsair Avenue, and at the corner of Crystal Lake Road and the Military highway. Background gamma radiation measured between 12 and 15 $\mu\text{R/hr}$ in all these locations. Background beta radiation in all locations measured 60-80 counts per minute. Background alpha readings were 1-2 counts per minute. These levels are well within what is considered "normal" for this region. Any gamma reading of 20 $\mu\text{R/hr}$ or more in the survey areas was investigated further.

A gamma radiation reading of 20 $\mu\text{R/hr}$ or more was used as a trigger point at which further surveys and evaluations were performed."

17. Section 4.11.1.4, Page 4-74: *It is noted that PCBs were detected in two surface soil samples (2LSS1 & 2LSS2) that are located adjacent to the concrete storage pad where drums, PCB transformers and electric switches were once stored. Figure 4-16 and Plate 4-1 identify where the samples are located, but do not depict where the pad is located. The location of the pad should be depicted in the figure and plate.*

This request will be complied with.

18. Table 4-32, Page 4-103: *This table lists the ground water ARAR for benzene at 5 ppb. Table 4-14 (page 4-45) notes that the To Be Considered (TBC) level for benzene is 1 ppb for ground water at the Goss Cove Landfill. Please explain why a different standard is used at each location for the same constituent in the ground water.*

Table 4-14 will be revised to reflect the benzene ARAR as 5 ppb.

19. Section 4.11.6, Page 4-118: *Information on page 6-82 noted that surface water sampling locations (2DSW12 & 2DSW13) are approximately ten feet away from the outfalls of the Area A Downstream Watercourses. This information should be included on page 4-118 when discussing surface water sampling results.*

This request will be complied with.

20. Section 4.11.6, Page 4-122: *It is unclear where an upgradient sample designated as 2LWSD1 is located.*

This sample was incorrectly referenced in the text as 2LWSD1; it will be changed to 2WSW1. It's location is shown on Figure 4-16 and Plate 4-1.

21. Plate 4-1, End of Report: *Monitoring well 2DMW15S is not displayed on Plate 4-1. However, it is shown on Figure 4-22 on page 4-89. Please revise Plate 4-1 to show the monitoring well location.*

The location of 2DMW15S will be added to Plates 4-1 and 6-1. Please note, as indicated on Figure 4-22, that this was only a boring because ground water was not encountered in the overburden.

22. Section 6.2.3, Page 6-82: *Title of this section should be "Qualification of Exposure" for Step I sites.*

This heading pertains to both Step I and II sites. For the Step I site, the text is clear that the exposure is based on a qualitative basis. Therefore, this change is not believed to be required.

23. Section 6.2.3.1, Page 6-82: *It was noted that the pesticides identified at the Rubble Fill at Bunker A-86 might be indicative of localized contamination because they were different from the pesticides detected at the NSB-NLON. This statement is contrary to the conclusion reached in Section 4.5 on page 4-25. The text on page 4-25 indicates that the pesticides were likely associated with historic Area A applications and not as a result of disposal activities identified with the Rubble Fill at Bunker A-86.*

The text in Section 4.0 will be revised to be consistent with Section 6.0.

24. Section 8.1.1.2, Page 8-1: *Although no further action was recommended for the CBU Drum Storage Area, further investigation is warranted for the following reasons: 1) total petroleum hydrocarbons (TPH) were found at each surface soil sample location at concentrations ranging up to 9800 ppm; 2) except for sample 1SS1, TPH concentrations at the other two sample locations (1SS2 & 1SS3 increased with depth); and 3) the composite sample (1SS4C) indicated the presence of two PAHs. Further sampling of soils is required to characterize the depth and lateral extent of contamination. The potential exists that ground water in this area may have been impacted from the documented leakage of drums which contained waste oil, lube oil, and paint materials.*

The Navy takes exception to this comment and will discuss it further with the CTDEP and the USEPA. We feel the site has been adequately investigated and assessed to support the no further action recommendation.

25. Section 8.1.3.2, Page 8-3: *The report has recommended that the Torpedo Shops proceed to the Step II phase of the Installation Restoration (IR) program. It is recommended that an inventory of compounds that are or have been used at the Torpedo Shops be compile to assist in a review of this site.*

Comment is so noted.

26. Section 8.1.4.2, Page 8-5: *Any future subgrade construction projects planned for the Goss Cove Landfill, on which the Nautilus Museum is located, should be noted in this section or that the information exists in Appendix E. In addition, it is noted that worker health and*

safety will be assessed for any future construction activities proposed at this site. Potential public exposure to VOCs and/or fugitive dust should also be addressed in this assessment.

The text will be revised to note that some utility reconstruction is being designed. We concur that exposure to VOCs and/or fugitive dust should be addressed in the construction plans/specifications.

27. *Section 8.1.6.2, Page 8-7: If any future construction activity is required at the Spent Acid Storage and Disposal Area, health and safety considerations should include the public.*

We concur.

28. *Section 8.2.1.2, Landfill Soils, Page 8-18: It was recommended that further soil sampling should be accomplished around the Area A concrete pad to define the full extent of contamination. In addition, a sampling plan to address PCB contamination of the concrete pad should be conducted. This plan should include areal wipe samples and chip and/or core samples to determine the depth of potential contamination. This action appears appropriate due to the storage of drums and transformers on the pad and the subsequent discovery of PCBs in the soils adjacent to the pad.*

This request will be considered in the development of the supplemental field investigation work plan for this site.

29. *Area A Downstream, Page 8-11: Further characterization of the area around sample location 2DMW15S may be necessary due to an unconfirmed report stating that past disposal may have occurred in this general vicinity. It is possible that the TCE and PCE detected in the subsurface soils may be related to this activity.*

Further review of this claim with Subase personnel and an examination of aerial photographs did not substantiate this claim.