



RHODE ISLAND  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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TDD 401-831-5508

April 27, 1998

James Shaffer, Remedial Project Manager  
U.S. Department of the Navy  
Northern Division  
Naval Facilities Engineering Command  
10 Industrial Highway  
Code 1823-Mail Stop 82  
Lester, PA 19113-2090

RE: Draft, Human Health Risk Assessment Report for the Derecktor Shipyard, Naval Education and Training Center, Newport, Rhode Island

The Office received the Work Plan for the Derecktor Shipyard Human Health Risk Assessment on 8 January 1998. Comments on this Plan were submitted on 19 February 1998. The Navy responded to the Office's comments on 17 March 1998. As there were outstanding issues on the 17 March 1998 response package for the Work Plan, and since the Navy submitted the Draft Human Health Risk Assessment Report on 13 March 1998, the State did not issue an approval for said Work Plan nor was a meeting held to resolve outstanding issues.

Work Plans are important documents in that they determine the scope and nature of the reports they are designed for. Accordingly, the normal procedure is to respond to and resolve regulatory comments concerning a Work Plan for a report prior to the report being submitted. In this manner concerns are addressed and a consensus is reached so that the regulatory agencies can issue an approval letter for the Work Plan and subsequently the report can be submitted. This avoids unnecessary delays and extensive revisions in the Draft and Draft Final Reports produced from the Work Plan. The Navy has elected to forgo normal regulatory approval and has issued the Report for the site prior to responding to regulatory comments on the Work Plan and obviously prior to obtaining approval for said Work Plan. Please be advised that, by not following standard procedures extensive, revisions and or delays may occur with respect to the report for this site.

Finally, in the future, if the Navy is not going to seek approval for a Work Plan the Navy should make its intention known at the time of the submission. In this manner, the Office will not unnecessarily expend limited resources reviewing and commenting on a document, which the Navy does not intend to modify.

The Office has reviewed the Draft Human Health Risk Assessment Plan for Derecktor Shipyard dated 13 March 1998. Attached are comments generated as a result of this review. The comment package includes an evaluation of the Navy's response to unresolved comments on the Draft Human Health Risk

Assessment Work Plan. If the Navy has any questions concerning the above, please contact this Office at (401) 222-2797 ext. 7111.

Sincerely,

A handwritten signature in cursive script that reads "Paul Kulpa".

Paul Kulpa, Project Manager  
Office of Waste Management

cc: Warren S. Angell, DEM OWM  
Richard Gottlieb, DEM OWM  
Kymberlee Keckler, USEPA  
Brad Wheeler, NETC

**Comments on the  
Draft Human Health Risk Assessment  
for the Derecktor Shipyard**

**Evaluation of Response  
to State Comments**

**1. Page 1, Introduction;  
Last Paragraph.**

This section of the report states that *The water depths within the study area are between 20-50 feet. This precludes the potential for human exposure to contaminants in sediments in these areas.*

The Navy has indicated that the water depths within the study area range between 20 to 50 feet and therefore exposure to sediments is not an issue. This statement is in conflict with site conditions and with previous reports submitted by the Navy. Specifically, there is a large beach located on the southern section of Derecktor Shipyard. The water depth at this location is not 20 to 50 feet, in contrast, the area in question contains a shallow beach environment. This area was also reported in the 1993 Preliminary Assessment and most recently in the 1997 Site Assessment Screening Evaluation Report (for example page 7-2 of the latter report states *The vegetation in the South Waterfront includes a narrow corridor of upland shrub/ shrub species, which parallel a dune beach strip along Narragansett Bay....Certain portions of the upland and beach area have been significantly disturbed*). In addition, this area was discussed with the Navy and the Navy's contractor during the recent Ecological Advisory Board Meeting. Specifically, it was pointed out that the beach in question was incorrectly identified as a dune beach.

Therefore, since there is a beach, it is inappropriate to state that the water depths in the area preclude potential for human exposure to sediments. Accordingly, the report should be modified and this exposure should be addressed in the Risk Assessment.

*Evaluation of Response*

*As indicated in the above, the Office has requested that the Navy modify the report which currently incorrectly states that a beach is not present at the Derecktor Shipyard site. In the response package the Navy has indicated that the requested modifications will not be made for the following reasons: Acknowledging that a beach is present at the site would infer that sediment samples should have been collected, the State did not contest the lone use of a shellfish exposure route during the October 15, 1997 RPM meeting and contaminant exposure is not expected at this location.*

*In regards to the first part of the Navy's response, the Navy cannot change the fact that a beach is present at the site by simply incorrectly stating in the report that it does not exist. Furthermore, the Navy should not ignore the fact that a beach is present in order to avoid potential collection of samples in the area. This would be inconsistent with the Navy's stated goal of investigating and remediating contaminated areas of the base. The Navy has also inferred that the State has limited the scope of the Work Plan by statements made during a RPM meeting. During the meeting in question, this Office clearly stated that*

any proposal would have to be evaluated by appropriate DEM staff and therefore the Office would only offer a tentative agreement to the proposed limited exposure route. Finally, the Navy has indicated that the area in question does not represent an area of concern. The Preliminary Assessment conducted at the site states that the Derecktor Shipyard Southern Hazardous Waste Storage Area is located adjacent to the beach in question. The report also a second nearby area in which waste materials were apparently discarded from a door at the rear of the Assembly Building to such an extent that the soils and the rocks along the beach in the area were stained, (the stained soils and rocks are still present). Unfortunately, this area was not addressed during the recent SASE report performed on the Derecktor Shipyard. The State has brought this omission to the Navys attention and the Navy has agreed to collect samples from the area. As this has not been done, it would be inappropriate to state that the area is not contaminated.

Therefore, based upon the above, this Office reiterates its original comment.

**2. Page 1, Introduction;  
Last Paragraph.**

This section of the report states that *The water depths within the study area are between 20-50 feet. This precludes the potential for human exposure to contaminants in sediments in these areas.*

This section of the report indicates that water depths precludes exposure to site sediments. As a result, the only exposure route which is considered is ingestion of shellfish. Harvesting of shellfish results in dermal exposure to sediments adhering to the shells. This represents a direct dermal and incident ingestion exposure. Similar concerns were recently submitted in the comment packages, dated June 12, 1997 and August 28, 1997, for the McAllister Point Landfill Human Health Risk Assessment (ie, the State noted that the total exposure for an individual harvesting shellfish would include ingestion of said fish and exposure to sediments). Therefore, the Work Plan should be modified to include this potential exposure route in the risk assessment.

*Evaluation of Response*

*The Office reiterates its comment, see evaluation comment number 1.*

**3. Page 2, Data Evaluation.  
Second Paragrapu.**

"Deployed mussels will also not be evaluated in this HHRA, because the indigenous blue mussels present in the sediment are expected to represent more realistic or actual conditions for human consumption at Derecktor Shipyard."

This work plan is a public document. Therefore, in addition to the above justification for exclusion of deployed mussels the plan should indicate why deployed mussels were used at the site. In addition, the report should note whether the concentration of contaminates were higher in deployed or indigenous mussels.

### *Evaluation of Response*

*The Navy has stated that deployed mussels are only exposed to the site for a limited time and that the indigenous mussels by their very nature are expected to be more representative of shellfish collected by the human receptor. Accordingly, it would be expected that the concentrations of contaminants in the deployed mussels would be less than the indigenous mussels. In support of this position the Navy should address the second part of the Office's comments concerning the concentrations of contaminants in deployed and indigenous mussels. The Office recommends including a table, which depicts the range of contaminants, detected in the deployed and indigenous mussels*

#### **6. Page 7, Exposure Assessment:**

This section of the report indicates that the shellfish consumption rate is 1.2 g/day and 15.6 g/day for the adult and subsistence fisherman respectively. This issue was previously discussed at length during the review of the McAllister Point Human Health Risk Assessment. At that time it was determined that consumption rate was underestimated. Specifically, it was determined that the consumption rate of 15.6 g/day was appropriate for the adult resident and not the subsistence fisherman. The subsistence fisherman consumption rate was considerably higher. A consumption rate of 80 g/day was applied for the prime harvest months, adult values would be used for the rest of the year.

### *Evaluation of Response*

*The Navy response is not clear in that it appears that the Navy will use the Work Plans exposure rate for the subsistence fisherman and the Office's exposure rate for the recreational fisherman, and by default the child exposure rate? As stated in the original comment this issue was discussed at length for the McAllister Point Landfill site and it was determined that the adult consumption rate of 15.6 gram/day is appropriate. The consumption rate for the subsistence fisherman for the prime harvest months is 80 g/day. Concerning this exposure route the Office is willing to discuss the number of prime harvest months and the consumption rate for nonprime harvest months.*

#### **Comments on Draft Report**

##### **1. General Comment**

The Risk Assessment for the site is based upon the concentration of contaminants found in shellfish and lobster samples taken from the site. The date for this assessment was obtained from the Ecological Risk Assessment conducted at the site. During the Ecological Risk Assessment logistical problems prevented the collection of biota samples from all sampling stations, (ie biota samples may not have been collected from areas where sediments samples were collected). The Report should note whether biota samples used in the Human Health Risk Assessment correspond to the areas of observed sediment contamination. The report should also note whether areas of observed contamination were not addressed in the Human Health Risk Assessment due to the lack of biota samples. To this end a figure should be included which depicts all known sample areas of contamination and known biota sample locations. The report should also indicate what actions will be taken to address those areas not covered by biota samples. One possible solution for those areas deficient in biota samples would be to estimate biota concentrations based upon existing data.

**2. Section 2.3, Data Evaluation**  
**Page 2-3.**

This section of the reports indicates that edibility of biota tissue will be included in the assessment. Please note whether the hypopancreas is included in this assessment. This organ is known to accumulate toxins and as such would represent the greater exposure route. As this is a public document full justification is requested if this organ is not included. In addition, the report should discuss the ramifications of excluding this organ.

**3. Section 7.3.1, Global Variables (all scenarios)**  
**Page 7-4.**

This section of the report notes that the child (age 0-6 years) and the adults (age 18-65 years) is included in the evaluation. The report should note whether the age group 6-18 years is covered in the assessment. As this is a public document full justification is requested if this group is not covered.