



**RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

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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
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RE: Comments on Draft Final, Revision 1, Gould Island Remedial Investigation Work Plan, Naval Education and Training Center, Newport, Rhode Island

The Office has reviewed the Draft Final, Revision 1, Gould Island Electroplating Shop Remedial Investigation Work Plan, dated 27 March 1998. The previous Work Plans submitted to this Office were limited to the three rooms in the Building 32 complex that comprised the Electroplating Shop. The current Work Plan encompasses the entire Building 32 complex. As such, this represents an expanded scope of work. It is therefore, inappropriate to label this document as Draft Final, as it is in essence a Draft Work Plan, and will be treated as such by this Office.

This Office has reviewed the previous Work Plans submitted by the Navy, and has generated four separate comment packages for this site. In addition, there have been numerous meetings with the Navy to discuss the scope and content of the investigation for the Electroplating Shop. The Navy acknowledged that changes were warranted and modified the Work Plan to address these issues. However, a review of the current Work Plan reveals that the Navy has decrease and or eliminated samples to be collected from the electroplating shop portion of the site. Furthermore, the Navy has reversed its position on issues in which a consensus has been reached. This Office has not found any justification in the Work Plan for these changes. Therefore, all previously agreed to changes should be incorporated into the next revision of the Work Plan.

As noted above, the Navy has substantially increased the area to be investigated. However, in many instances, surface/subsurface soil samples, groundwater samples, etc, there has not been an increase in the number of samples to be collected from the site. In essence, the Navy's current position is that the same number of samples which were necessary to investigate three rooms of the Building 32 complex is now sufficient to investigate the entire complex, that is, an area that is over twenty times greater than the electroplating shop. The Navy had justified the number of samples to be collected in the previous submittal for the electroplating shop. However, a rationale for the current position was not found in the document. Therefore, the number of samples to be collected at the site should reflect the increased scope of investigation.

Finally, as stated in the 27 February 1997 response letter, this Office's position is that a full Remedial Investigation Report is warranted for the site. It is recommended that the Navy meet with this Office to discuss this issue.

In summary, the Navy has increased the scope of the investigation to be conducted at the site. However, there has not been a corresponding increase in the number of samples to be collected. Conversely, in certain instances, previously agreed to samples have been eliminated. Justification was not found for this approach. Therefore, in order to adequately investigate the site, the Work Plan should be modified to mirror previously agreed to provisions and the increase scope of the investigation. If the Navy has any questions concerning the above, please contact this Office at (401) 222-2797. ext 7111.

Sincerely,



Paul Kulpa, Project Manager
Office of Waste Management

cc: Warren S. Angell, DEM OWM
Richard Gottlieb, DEM OWM
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**Comments on Draft Final Gould Island Electroplating Shop
Remedial Investigation Work Plan**

**30. Section 3.2.4, Task 4 Sediment and Discharge Pipe Sampling;
Page 3-9, Whole Section.**

The previous work plan submitted by the Navy called for the collection of ten sediment and ten biota samples for a total of twenty samples. The current work plan specifies that no biota samples will be collected from the site. As previously stated, historic biota sampling has demonstrated that impacts have occurred. Base upon this information the Navy proposed collecting biota samples in the SASE Work Plan for this site. However, the Navy's position for the more intensive Remedial Investigation Work Plan is that this analysis is not warranted. The Office is unaware of any new site specific information which would warrant changes from the original proposals in the SASE Work Plan. Therefore, the Office reiterates its position.

Evaluation of Response

The Navy has indicated that shellfish samples will be collected from the affect areas if the organisms are available. Since biota sampling is necessary, the Plan should stipulate that if shellfish are not available other organisms,indigenous or deployed and or other methods will be used in this evaluation. The nature of these alternate methods will be determined by agreement of all parties.

Evaluation of Revision 1

The Navy has eliminated biota sampling from the latest revision. The revision should be modified as indicated in the cover letter, and the Navy should address this Office comment.

**34. Section 3.3.1, Task 6 Geologic/Hydrologic Investigation;
Page 3-12, Whole Section.**

This section of the plan indicates that the geologic/hydrologic investigation, a Phase II activity, may be performed based upon the results of the Phase I activities. The proposed Phase I activities are limited in scope and therefore could not be used to determine whether a geologic/hydrologic investigation is warranted. In addition, investigations of this nature are normally conducted as part of a Phase I activity. Therefore, this section of the plan should be consider a Phase I activity. The sample locations for this activity may be fined tuned based upon the results of the previous investigations.

Evaluation of Response

The Navy has indicated that the results of the Phase I activity will be used to locate the sampling points of the Phase II activities. The Office believes that Phase I results may be used to locate sampling points for Phase II efforts. However, as sated above, the

scope of the Phase I activities are far too limited in nature to be used as a decision tool in the determination of whether Phase II actions are warranted. In addition, as stated, the proposals delineated in the Phase II effort are normally carried out as a Phase I activity. Therefore, while it may be appropriate to use the information from the Phase I investigation to locate Phase II sampling points, it is inappropriate to use this limited study in a determination of the need for Phase II activities. Therefore, the Work Plan should be modified such that the function of the Phase I activities with respect to Phase II will be for location of sampling points only, and not as a determinant for the need of additional investigations.

Evaluation of Revision 1.

As stated in the above, the proposed geohydrological investigation is commonly used in Phase I investigations, and therefore must be considered part of the Phase I action.

**39. Section 5.2, Human Health Risk Assessment;
Page 5-2, Whole Section.**

This section of the plan discusses the selection of COPCs using Region III criteria. As previously stated, this selection process is normally carried out if a large number of contaminants are found at the site (Note, during previous human health risk assessment conducted at the base, extensive list of contaminants of concern were carried through the risk assessment). The Work Plan should note that this process will only occur if this condition exists. If the process is to be employed Region IX values may be used and the screening process recommended by Region IX should be implemented.

Evaluation of Response

As indicated above, selection of COPC are normally carried out if there is a large number of contaminants. This procedure was agreed to and carried out for past risk assessments conducted at the base. In those cases when a selecting process is warranted, the Office recommends the use of Region IX values. Region IX values, which were developed after Region III's are advantageous for the following reasons. Region IX evaluated a greater number of scenarios than Region III. In addition, Region IX employs a mechanisms to evaluate cumulative risk. Specifically, it is accepted that cumulative risk from different contaminants below a standard may result in an unacceptable risk. Region IX utilizes a decision matrix which considers these cumulative risks, Region III does not. Therefore, the Office reiterates its position that in those cases where a selection of COPC is warranted, Region IX values should be employed.

Evaluation of Revision 1

The Office has requested that the Navy adopt Region IX standards and policies as it addresses cumulative risk. Justification for using Region III policies was not found in the latest revision. Therefore, this Office reiterates its comment.

**41. Section 5.3, Ecological Assessment;
Page 5-5, Whole Section.**

As previously stated, this section of the plan indicates that impacts to the terrestrial

environment will be based upon contaminants of concern detected in surface soils at the site. During an recent inspection of the site it appeared that terrestrial organisms would be exposed to contaminants associated with debris, asbestos, sludges, contaminated concrete and contaminated water in pits (the later is not scheduled for sampling during this investigation). Therefore, the risk assessment should be expanded to include these media in the COPC selection. Please note, the surficial soil sample event is limited in both the number of samples collected and the area investigated. In addition, organisms inhabit areas deeper then the 0-1 foot depth. Therefore, the 0-1 foot interval may not represent the total exposure to the terrestrial environment. The Office recommends supplementing this information using data collected at appropriate depths from the subsurface explorations at the site.

Evaluation of Response

The Navy has indicated that the tanks within the shop have been emptied and no longer represent a threat. The Draft Final Work Plan states that the cleaning effort associated with this action will be summarized in a latter version of the Work Plan, (as the original report documenting this action was not available). The Office assumes that, in order to summarize this remedial action, the Navy will obtain a copy of the aforementioned report prior to submission of the Final Work Plan. The DEM requests a copy of said report. Please be advised that this report, and or field documentation will be required, in order to determine whether contaminants, that may present a risk, have been left behind in the tanks within the electroplating shop. Upon receipt of said documentation, the Office will submit its position on this comment with respect to the tanks within the electroplating shop.

In regards to activities conducted outside of the shop, the Navy, in the cover letter to this comment submittal, has indicated that they intend to expand the scope of the investigation to include all of Building 32. Building 32 contains many sumps with standing water. Since the Navy has indicated that remedial activities were limited to the electroplating shop, these sumps may represent an exposure route which will have to be address in the ecological risk assessment.

Finally, it is known that birds and other organisms have been observed in the electroplating shop. Accordingly, these organisms may be exposed to any residues, sludges, contaminated debris, etc found in the shop. Therefore, this exposure route must be evaluated.

Evaluation of Revision 1.

In the Draft Final Document the Navy indicated that the requested report would be included in a later revision of the Work Plan. The Navy has not included the requested information in the latest revision of the Work Plan. As stated above, this Office has concerns with respect to materials found within the Building 32 Complex. During the site walkover avian mortality appeared higher at this site then in other rookeries. This may be a result of exposure to contaminants within the Building 32 Complex. This Office therefore reiterates its comment.

- 42. Section 5.3, Ecological Assessment;
Page 5-5, Whole Section.**

This section of the plan indicates that invertebrates will not be examined during this assessment. The Office reiterates its position that invertebrates are useful organism for the examination of environmental impacts and therefore should be included in this assessment.

Evaluation of Response

The Navy has indicated sediment data will be compared to NOAELS and NOAA benchmarks. The referenced section in the States comment, Section 5.3, discusses an ecological assessment of the onshore environment. Accordingly, the Office's comment concerning invertebrates was for the terrestrial environment. The Office, therefore, reiterates its position that invertebrates should be sampled (from the terrestrial environment).

Evaluation of Revision

The Office is aware that the Navy intends to reduce the scope of the ecological assessment for the site. It is recommended that the Navy meet with the Office to discuss this issue.

**42. Section 5.3, Ecological Assessment;
Page 5-5, Whole Section.**

This section of the plan indicates that invertebrates will not be examined during this assessment. The Office reiterates its position that invertebrates are useful organism for the examination of environmental impacts and therefore should be included in this assessment.

Evaluation of Response

The Navy has stated that sediment data will be compared to NOAELS and NOAA benchmarks. As indicated in the above response, this was not the focused of the comment. However, in regards to the contents of the Navy's response concerning comparisons to bench marks, be advised that, this procedure should mirror those conducted at other sites. Specifically, comparisons of this nature should include all appropriate benchmarks; they should not be limited to NOAA values.

Evaluation of Revision 1.

The revision has not listed the other benchmarks to be used at the site, however, it is implied that other benchmarks may be used. Please confirm.

44a. Appendix B, Section 5.2

This section of the plan discusses the preservation measures for soils sample. Soil sample must undergo methanol preservation in the field. Please make the necessary modifications to the work plan.

Evaluation of Response

The Navy has indicated that the proposed method will be used if it is a RIDEM requirement and the EPA agrees with the proposal. The Office reiterates its position that Method 5035 should be employed in the field.

Evaluation of Revision 1.

Appendix B was not submitted in the State's package, therefore this Office is unable to address this issue.

**Comments on Draft Final Gould Island Electroplating Shop
Remedial Investigation Work Plan
(Expanded Study Area)**

1. General Comment

Previously, the Navy has submitted redline and strike out revisions to the document. This approach was advantageous in that it clearly delineate which sections of the report were being changed. The Navy did not follow this practice in the latest revision. Please continue to follow this approach in all subsequent submissions of the report.

**2. Section 2.2, Site Description:
Page 2-3, Whole Section.**

The Site Description section is designed to provide pertinent information concerning site conditions so as to guide the sampling effort. This section does not provide the necessary information. The Plan should note whether any electrical equipment, such as transformers, or any mechanical equipment, which may leak oils, are present. In addition, the Plan should note if any of the sumps, vats, or tanks are labeled and should provide this information in figure format.

**3. Section 2.3, Site History:
Page 2-5, Whole Section.**

The Site History section is tasked to provide information concerning operations carried out at the site and consequently potential sources of contamination, which warrant sampling. This section does not meet the task requirements. The Plan has not provided the necessary information concerning operations carried out at the site, such as the location of the degreasing areas, AST/USTs associated with degreasing operations, supply lines for degreasing operations, chemicals used in degreasing, sludge handling, operations associated with polishing or grinding, waste handling associated with these operations, the function of the baghouse depicted on the site figure, etc. This information is critical to the Work Plan as it is used to design the scope of the sampling effort. Therefore, this section should undergo extensive revisions. In order to meet the task requirements, engineering plans, SOPS and other sources of information from NETCs Engineering Department and archives at the base museum will have to be used. This Office requests a copy of all the above materials.

**4. Section 2.3, Site History:
Page 2-5, Paragraph 3.**

This section of the Plan states that aerial photographs have provided limited information concerning impacts from the site due to the location of the plating operation within the building. Obviously aerial photography cannot provide information concerning operations within a building. However, it can provide useful information concerning operations outside of the building. As an illustration, it may be used to locate transformers, areas

where drums or other materials were stored (the base used aerial photography to locate a nearby drum storage area), stressed vegetation, stained soils, leachate out breaks, etc. As the aerial photographs were not reviewed to address these potential sources of contamination (no mention of aforementioned drum storage area), the photographs should be reviewed again. In addition, the review should not be limited to those photographs found in the Department of Administration as the scale for some of the photographs may be of limited utility. It is known that the Engineering Department at the Navy base and the archives at the base museum contain large scale photographs of Gould Island, including photographs of the interiors of Building 32. These and other sources of information should be utilized in this endeavor.

**5. Section 2.4.4, Building 44 Site Investigations:
Page 2-17, Whole Section.**

This section of the Plan discusses the Building 44 Investigation. This information is included in the Plan as it provides useful information concerning proposed sampling activities. An appropriate finding, which was not included in the report, was the fact that elevated levels of chromium and cadmium were found in a soil sample taken during this investigation. The authors of the Building 44 Report thought that this findings was significant as these materials are commonly associated with electroplating shops and it was known that an electroplating shop was present in Building 32. The Office is aware that this information may have been over looked during a review of the Building 44 Report. However, this Office is concerned, in that this information was brought to the Navys attention in the cover letter of correspondence dated 27 February 1998. Please include the above findings in the Plan and modify the soil sampling effort accordingly.

**6. Section 2.4.4, Building 44 Site Investigations:
Page 2-18, Paragraph 2.**

This section of the Plan discusses the findings of the Building 44 Investigation. A significant finding at this location was the fact that free product was discovered. The Plan has not included this important finding in the discussion. Please modify the Plan accordingly.

**7. Section 2.5, Hydrology and Geology:
Page 2-18, Whole Section.**

This section of the Plan discusses the site hydrology using information from historic investigations. General groundwater flow directions are provided. Please review the information to ascertain whether a groundwater contour map may be drawn, and if so, please include said map in the Plan.

**8. Section 2.6.1, Statement of the Problem:
Page 2-22, Whole Section.**

This section of the document indicates that the focus of the Work Plan will be waste associated with electroplating and degreasing operations. The document contains a typographic misprint, in that waste associated with polishing operations, and wastes associated with support facilities, (such as PCBs from transformers), have not been included. Please correct.

**9. Section 3.2.2, Task 2 Concrete Slab Floor and Subsoil Sampling:
Page 3-4, Paragraph 2.**

This section of the Plan states that eight concrete floor samples will be collected. In the original Work Plan the Navy indicated that eight concrete samples were needed in order to properly investigate the electroplating shop. The current Work Plan has greatly increased the area to be investigated, (the interior area of Building 32 is more than twenty time greater than the interior of the electroplating shop). The Navy has not, however, increased the number of samples to be taken. Since the Navy has not provided any information in support of a reduction in the number of samples to be collected from the Electroplating Shop, and as there has been a substantial increase in the area to be investigated, there should also be a corresponding increase in the number of concrete samples to be collected from the site. Please modify the Plan accordingly.

**10. Section 3.2.2.1, Sub Slab Soil Sampling:
Page 3-4, Paragraph 1.**

The sub-slab soil samples will be collected from the 0-12 inch soil interval at each concrete chip sample location (estimated 8 samples).

See preceding comment concerning number of samples to be collected.

**11. Section 3.2.6, Soil Gas Sampling:
Page 3-12, Last Paragraph.**

This section of the Plan indicates that GRO and DRO TPH samples will be collected from the site. Due to the nature of the activities carried out at this site the TPH analysis should be expanded to include cutting oils, lube oils, hydraulic oils, etc.

**12. Section 3.2.7, TASK 7, Surface Soil Sampling:
Page 3-13, Whole Section.**

See Comment # 8 concerning the number of samples to be collected at the site.

**13. Section 3.3.1.2, Surface and Subsurface Soil Sampling:
Page 3-17, Whole Section.**

See Comment # 8 concerning the number of samples to be collected at the site.

**14. Section 3.3.1.2, Surface and Subsurface Soil Sampling:
Page 3-17, Fourth Paragraph.**

This section of the Plan indicates that soil samples will be screened with a FID. Although not stated, it is assumed that standard headspace procedures will be employed. Please confirm.

**15. Section 3.3.1.2, Surface and Subsurface Soil Sampling:
Page 3-17, Fourth Paragraph.**

This section of the Plan indicates that soil samples will be collected from the 0-1 foot interval. Please be advised that RIDEM recommends that the sample be collected from the 0-2 foot interval.

**16. Section 3.3.1.2, Surface and Subsurface Soil Sampling:
Page 3-17, Last Paragraph.**

This section of the Plan indicates that Region I SOPs will be used to collect VOC soil samples. Please be advised that per EPA SW 846 all VOC soil samples for laboratory analysis must undergo field preservation with methanol or EnCore sampling.