New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233

Thomas C. Jorling
Commissioner

MAY 2 7 1993

Ms. Debra L. Felton, P.E.
Remedial Project Manager
North Division
Naval Facilities Engineering Command
10 Industrial Highway
Mail Stop #82
Lester, PA 19113-2090

Dear Ms. Felton:

RE: Grumman-Calverton
RCRA Facilities Investigation Work Plan

Enclosed are the joint United States Environmental Protection Agency (USEPA) and New York State Department of Environmental Conservation (NYSDEC) final comments regarding the RCRA Facility Investigation Work Plan for the Naval Weapon Industrial Reserve Plant (Grumman), located in Calverton, New York. These comments pertain to four SMUs and AOCs that were identified in the USEPA HSWA permit and the NYSDEC Part 373 permit issued in March of 1992. These areas are the Northeast Pond Disposal Area, Fire Training Area, Fuel Calibration Area, and Fuel Disposal Area.

A draft version of the enclosed comments had been sent to the Navy in February of 1993. Prior to the March 4, 1993 Technical Review Committee Meeting, the Navy submitted a draft response to these draft comments. The Navy had been informally provided a copy of these final comments by FAX in May of 1993.

All comments that were previously made in the draft version are included in the enclosed comments, with our indication as to whether the permittee's draft response to our comments is adequate. The enclosed set of comments includes the comments from the USEPA Region II RCRA and CERCLA Programs, Monitoring Management Branch, and the NYSDEC Division of Hazardous Substances Regulation.

The Navy shall revise the RCRA Facility Investigations Work Plan in accordance with the joint USEPA Region II and NYSDEC final comments and submit the revised plan for approval by June 20, 1993, as required by the permit.

Due to the imminent start of the IAG negotiations for the Calverton facility between the USN, USEPA, and NYSDEC, the technical lead for the site has been transferred to the NYSDEC Division of Hazardous Waste Remediation (Superfund). This transfer of technical lead does not in any way diminish the Navy's responsibility under the USEPA HSWA and the NYSDEC Part 373 permit issued in March of 1992. Therefore, you are advised to prepare for the implementation of the RCRA Facility Investigation Work Plan within thirty (30) calendar days of written notification of approval.

If you have any questions concerning these comments, please contact the Mr. Richard Lilley at NYSDEC (518) 457-6072, or Ms. Carol Stein of the USEPA at (212) 264-5130.

Sincerely yours,

Marsden Chen

Marsden Chen, P.E.
Chief, Federal Projects Section
Division of Hazardous Waste
Remediation

for

Andrew Bellina, P.E.
Chief, Hazardous Waste Facility
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Enclosure

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USEPA RCRA/CERCLA Comments on
Draft RCRA Facility Investigation Work Plan
Naval Weapons Industrial Reserve Plant
Calverton, New York

General Comments on the Field Sampling Plan, Part 4.0

1. TCLP Characterization

Final Comment: In reference to our inquiry regarding why the TCLP characterization would be used, the Permittee responded that the TCLP testing will be conducted to determine potential RCRA hazardous waste treatment/storage/disposal requirements, and that all TCLP testing will be conducted with relevant RCRA methodology. This is acceptable to EPA.

2. Test Pits

(Draft Comment:) The sections on test pits refer to "HALLIBURTON NUS SOP GH-1.6" as the reference for completion of the test pits. However, this reference, provided in Appendix A, is "Decontamination of Drilling Rigs and Monitoring Well Material". The work plan must provide more detail regarding the test pit activity and samples obtained from the test pits. This can be provided as a SOP or as detail in the text. Particularly of concern are details regarding the sampling from the backhoe bucket. It is important to ensure that the samples be representative and not biased toward apparent contamination.

Final Comment: The Permittee's response to our draft comment on this matter is acceptable. In the response, the Permittee indicated that the SOP for Test Pits will be added to the Appendices, and that text references to the appendices will be updated and corrected. The Permittee also indicated that the sampling locations in the test pits are planned to be partially biased, based on visual and OVA evaluations to identify potentially contaminated and uncontaminated areas and depths.

3. Soil Sampling

(Draft Comment:) Regarding the proposal to use composite samples, the Permittee should note that some compositing is acceptable in determining the overall extent of a contaminated area, but should not be used as a substitute for characterizing individual constituent concentrations. It will be necessary to collect an adequate number of grab samples, in order to meet the sampling objectives specified on p. A-4-17, of delineating the extent of contamination and collecting data necessary to conduct a Corrective Measures Study. In addition, a specific small grid pattern should be used for determining the sampling locations. (Please refer to OSWER Directive 9502.00 6D, Chapter 3, regarding grab sampling and sampling grids).

Final Comment: As a result of Permittee's response to our comment and our further review of the RFI Work Plan, we have determined that two grab samples should be taken for the Fire Training and Fuel Calibration Area, in addition to the composites for these two areas. This is based upon the Permittee's response that the proposed composite surface soil samples are composited over a small area (approximately 10-foot diameter circular area), and that the sample locations are based on a grid pattern, approximately 65-feet apart.

4. Groundwater Monitoring Well Installation

A. (Draft Comment:) PVC is proposed as the well construction material. Please refer to SOP No. HW-6 (Attachment 1 to these comments) regarding well construction material selection. Given the high levels of fuels and other organic contaminants, PVC may not be the best choice if these wells will be used as permanent monitoring wells.

(Permittee's Response): PVC wells arepreferred during the delineation of the nature and extent of contamination at the sites. The groundwater at the Northeast Pond Disposal area has not previously been investigated. Stainless steel wells may be used in teh future as part of a permanent monitoring system.

Final Comment: We do not object to your stated preference to use PVC wells on a temporary basis, as long as they are replaced by stainless steel wells if they are found to be needed on a permanent basis.

B. (Draft Comment): The proposal of mud rotary and reverse circulation drilling for the intermediate depth wells appears to be inappropriate since the wells are proposed for fairly shallow depths in unconsolidated deposits. If hollow stem auger will not work, a solid stem auger or cable tool can be used.

(Permittee's Response): The workplan will be revised to reflect a general guideline of using hollow stem augr drillling techniques for borings that extend up to 100-feet into the water table. The Navy prefers to leave options for alternative drilling techniques in the Work Plan for potentially deeper borings and/or future work that requires deeper borings.

Final Comment: Permittee's response is acceptable.

C. (Draft Comment): A demonstration must be made that the proposed filter pack will be constructed of a sand size appropriate for the formation.

(Permittee's Response): Based on experience at nearby Long Island sites, the proposed well construction materials are considered to be sufficient.

Final Comment: The Permittee's response that experience at nearby Long Island sites indicates that the proposed well construction materials are considered to be sufficient, is acceptable provided that the Permittee recognizes that it is responsible for constructing a system that functions properly. The Permittee would be required to redesign the system if it does not function in an acceptable manner.

5. Groundwater Monitoring

A. (Draft Comment:) Groundwater monitoring at each of the sites must completely characterize both the horizontal and vertical extent of contamination in order to meet the sampling objectives specified on p. A-4-17. The proposed sampling may provide sufficient information for an initial investigation, but the work plan should recognize that additional phases of groundwater investigation may be required. It may be worthwhile to expand the temporary well/hydropunch sampling if the furthest boundaries and/or depths indicate contamination.

(Permittee's Response): The temporary well/hydropunch program will be extended to delineate the boundaries of any contamination plume (i.e.extend outward from the source area until contamination is not detected). The Work Plan proposes that initial groundwater sampling locations be based on the results of the soil gas surveys. Additional groundwater sampling locations (further out) wil be located based on the findings at the initial locations. The Navy recognizes that additional phases of groundwater investigation may be required.

Final Comment: As was discussed, the Permittee recognize that additional phases of groundwater investigation may be required, and the Permittee plans to expand the hydropunch sampling if contamination is indicated at the furthest boundaries and/or depths.

B. (Draft Comment): One round of monitoring will not be adequate to characterize the groundwater contamination. Monitoring should occur semi-annually at a minimum, and should continue throughout remediation.

(Permittee's Response): One round of groundwater samples from new and existing monitoring wells are proposed for the RFI to delineate the nature and extent of contamination. Additional phases of groundwater investigation (another sampling round, long-term groundwater monitoring, additional

wells, etc..) will be considered based on the findings of the RFI.

Final Comment: As was discussed recently among EPA (RCRA and CERCLA), the Permittee, and the Permittee's Consultant, at least two rounds of groundwater sampling will be needed. One round of sampling should be during the wet season and one during the dry season.

6. Soil Gas Surveys

(Draft Comment:) The work plan states that the soil gas analysis "may" be conducted on-site. This analysis must be conducted on-site using a mobile gas chromatograph (GC), rather than at a laboratory. Another acceptable sampling technique is to take samples in a glass syringe and inject them directly into the GC.

(Permittee's Response): The soil plan states that the soil gas analysis is expected to be conducted on-site. The Navy prefers to leave the term "may" in the Work Plan to allow off-site equipment problems or sample backlogs.

Final Comment: Please specify in the RFI Work Plan that on-site soil gas analysis will be done whenever feasible.

Specific Comments

7. Section 4.2, Page A-4-17

(Draft Comment:) An additional objective of the study should be an assessment of whether any of the conditions of the sites require immediate or interim action.

(Permittee's Response): Based on the findings of the SI, conditions requiring immediate or interim actions are not anticipated at any of the RFI sites. However, if such conditions are encountered during RFI field activities, the need for immediate or interim actions will be addressed.

Final Comment: EPA and NYSDEC currently are conducting a review of the need for interim corrective measures at the facility. We will notify you of our findings. Please notify us if conditions are encountered during RFI field activities which warrant immediate or interim actions.

8. Table 4-1, Page A-4-19; and Table 2-1, Page B-8.

(Draft Comment): A geophysical survey of the Northeast Pond Disposal Area may be useful if the limits of this area are not known.

(Permittee's Response): The areal extent of Site 1 is reasonably well delineated areas of obviously reworked and manmade topography. Direct visual observation of material in test pits

and soil borings is preferred to a geophysical survey of the area.

Final Comment: The Permittee's response is acceptable.

9. Section 4.4.4.1, Pages A-4-23 through A-4-26

A. (Draft Comment): In the second paragraph it should be clarified that nine samples will be taken regardless of whether elevated vapor readings are obtained. There are contaminants of concern other than volatile organics.

(Permittee's Response): THe text will be edited to clarify that nine samples will be collected even if elevated OVA readings are not recorded. However, material with elevated OVA readings will be preferentially collected when and if encountered.

Final Comment: The Permittee's response is acceptable.

B. (Draft Comment): All of the soil samples taken from the test pits should be run for TCL volatiles and semivolatiles to adequately characterize the fill material. PAHs were found at high levels in previous sampling and it is likely that they will be found during the RFI.

(Permittee's Response): Based on SI results, the primary testing of this site is limited to potentially PCB/pesticides and TAL inorganics. TCL volatile organics were not detected at significant concentrations during the SI. Only limited semivolatile organic data is being collected because: usable sample results are available from the SI, the sampling methodology should bias the PAH results high (conservatively), and based on toxicity and mobility, PAH's at the levels detected, may not be environmentally significant.

Final Comment: For the landfill portion of the Northeast Pond Disposal Area, a full scan will not be required. But it will be required for all other investigations at the Northeast Pond Disposal Area.

10. Section 4.4.4.2, Page A-4-29

(Draft Comment): It is proposed that 3 samples out of 13 taken from soil borings will be analyzed for TCL volatiles and semivolatiles. Given the levels of PAHs already found at the Northeast Pond Disposal Area, more samples will be needed to adequately characterize the fill material.

(Permittee's Response:) Please see response to comment 9B.

Final Comment: As indicated in the Final Comment for #9B, above, for the landfill portion of the Northeast Pond Disposal Area, a

full scan will not be required. But it will be required for all other investigations at the Northeast Pond Disposal Area.

11. Section 4.4.4.3, Pages A-4-29 through A-4-31
(Draft Comment): The surface soil samples are proposed at the 0-6 inch depth. It was stated that this landfill has been covered with soil. What is the purpose of sampling at 0-6 inches if the landfill has been covered?

(Permittee's Response): Surface soil samples at the Northeast Pond Disposal area are being collected to evaluate potential risks associated with exposure to the cover material. The nature of the cover material and/or degree of mixing with underlying fill material is unknown.

Final Comment: The Permittee's response is acceptable.

12. Section 4.4.4.6, Page A-4-34
(Draft Comment:) The top of the well screen for the shallow wells is proposed to be above the seasonal low groundwater level. If free product or light non-aqueous phase liquids are not expected to be a concern at this site, the wells should be screened completely below the seasonal low water table.

(Permittee's Response): Groundwater has not previously been investigated at this site and the nature extent of contaminated material in the disposal has not been determined. The Navy prefers to screen the water table surface to confirm the presence or absence (now and in the future) of free product or light nonaqueous phase liquids in the groundwater.

Final Comment: The Permittee's response is acceptable.

13. Section 4.5.4.3, Page A-4-46
(Draft Comment): As indicated in the text, in the event that drums are found in the Fire Training Area during the test pit excavation, consideration should be given to drum removal with overpacking and storage prior to characterization.

(Permittee's Response): If drums are encountered during the test pit activities, interim or immediate actions will be considered at that time.

Final Comment: As was discussed in a recent telephone conversation among EPA (RCRA and CERCLA), the Permittee, and the Permittee's Consultant, the Permittee agreed to prepare a plan for managing any drums that may be found in the Fire Training Area.

14. Section 4.6.3, Page A-4-62
(Draft Comment:) It would be useful to extend the soil gas survey along the culvert shown in this figure.

(Permittee's Response): The soil gas survey is proposed with 40 additional sampling locations to be determined based on the results from an initial 35 gridded locations. The additional sampling locations will be used to extend the survey area outward to determine the extent of soil gas contamination. The survey will be extended along the culvert if soil gas contamination is detected along the upper portions of the ditch and culvert that lie within the gridded area.

Final Comment: The Permittee's response is acceptable.

15. Section 4.6.4.2, Page A-4-67
(Draft Comment): All of the soil samples should be analyzed for all TAL inorganics.

(Permittee's Response): Based on available information, there is no reason to believe that TAL inorganics other than lead are present at this site. However, based on visual (stained) evaluation of samples collected, approximately two of the subsurface soil samples from this site will be analyzed for full TAL inorganics. This change will be incorporated in the report.

Final Comment: In addition to the two subsurface composite samples which the Permittee proposes, the Permittee will be required to test two grab samples for all TAL inorganics.

ANALYTICAL/DATA QUALITY COMMENTS:

1. Tables 1-1, 1-2, 1-3, 1-4
(Draft Comment:) The current CLP SOW for organics is OLM 01.8. The current CLP SOW for inorganics is ILM 02.1. Please provide a list of TCLP analytes. Method 8010 is only suitable for chlorinated hydrocarbons. Another analytical method must be specified for hydrocarbons in ground water and soil gas samples.

(Permittee's Response): References to the current updates of the CLP SOWs will be corrected in the text (organic OLM 01.8; inorganic ILM 02.1). See response to NYSDEC comment 10.

A list of TCLP analytes will be added to the report. The list will include D004 to D043 parameters.

All organic field screening analyses will be conducted by a subcontractor according to the methods identified by the subcontractor. These analyses are considered to be EPA DQO Level II and will be used for engineering purposes only.

Final Comment: Permittee's response is acceptable provided that Permittee provide EPA and NYSDEC the opportunity to comment on the method proposed in lieu of Method 8010 after the method is determined.

2. Page A-2-3
(Draft Comment:) Please submit recent (within last 12 months) performance evaluation sample results and state audit reports for the analytes of concern.

(Permittee's Response): This information is not available at this time because the analytical laboratory has not been selected. This information will be provided once a laboratory has been selected.

Final Comment: The Permittee's response is acceptable.

3. Table 3-1
(Draft Comment:) The CLP TCL analyte list should be changed to reflect the OLM 01.8 analyte list. For aqueous organic analytes, triple volume is required for matrix spike samples. Please submit a copy of the analytical method proposed for organic lead in ground water and soil.

Some of the "ground water" samples collected are expected to be non-aqueous phase liquids or biphasic liquids. Table 3-1 should list proposed methods, containers, and holding times for these matrices. The soil CRQLs for semi volatiles and pesticides are incorrect for use with NAPLs and biphasic liquids.

TCLP sample container requirements are exceptionally matrix dependent. Please provide all known information about the matrices, especially the number of phases. TCLP holding times are analyte specific. Please provide a list of TCLP analytes. Please indicate which TCLP analytical deliverables will be supplied by the laboratory.

(Permittee's Response): The TCL analyte list will be updated in accordance with OLM 01.8. Triple volumes will be collected to accommodate matrix spike duplicate analyses. An analytical protocol for the determination of organic lead will be provided to the commencement of field activities.

The NAPLs are not part of the sampling program described in the Work Plan. Immiscible liquids were sampled during the SI. It is not the intention of the RFI sampling program to sample floating product. If biphasic liquids are encountered,the sample aliquot will be obtained from underneath the supernatant phase.

A list of TCLP analytes will be added to the report. The list will include D004 to D043 Parameters. DQO Level E data will be obtained.

Final Comment: The Permittee's response is acceptable.

4. Page A-3-27

(Draft Comment:) Substitute deionized water blanks for field blanks. Blank water generated for use in the Region II RCRA program must be "demonstrated analyte free". By this term, we mean water of a known quality which is defined by the Quality Assurance office.

The criteria for analyte-free water is as follows. The assigned values for the Contract Required Detection Limits (CRDLs) and Contract Required Quantitation Limits (CRQLs) can be found in the most recent CLP SOWs. These criteria apply to all blank water, whether or not EPA CLP analytical methods are employed.

volatile organics	<10 ppb
semi-volatile organics	<CRQL
pesticides	<CRQL
PCBs	<CRQL
inorganics	<CRDL

However, specifically for the common laboratory contaminants listed below, the allowable limits are three times the respective CRQLs.

methylene chloride
acetone
2-butanone
phthalates

The analytical testing required for the water to be demonstrated as analyte free must be performed prior to the start of sample collection, and the results must be sent to the Region II QAO prior to sampling.

Trip blanks are only required for aqueous VOA samples. Analysis of rinse blanks is performed for all analytes of interest. One blank should be collected for each type of equipment used each day a decontamination event is carried out.

(Permittee's Response): The decontamination water supplies used in the sampling programs conducted have historically met the criteria outlined in the comments. The sampling program provides for field and rinsate blank analytes. Provisions exist in the contract to conduct resampling if it is determined that the decon water supplies contain significant contamination. Pre-qualification of the decon water supplies in the manner presented in the comments would (1) result in significant increase in project cost if bulk quantities of certified water were to be purchased from a vendor, or (2) result in significant project delay (and additional cost), if laboratory analyses were to be conducted and reported prior to the commencement for field activities.

The guidance given in the comments regarding submission of trip blanks and the analysis of rinse blanks conflict with other guidance applicable to this project. In recognition of EPA Region II policy that trip blanks are only submitted in conjunction with aqueous VOA samples, and acknowledging that EPA Region II data validation protocol does not provide for the evaluation of associated trip blanks in conjunction with soil matrix VOA analyses, trip blanks will be submitted only for shipments containing aqueous VOA samples. Similarly, it is Navy policy to submit all rinse blanks collected to the analytical laboratory but analyze only the rinse blanks from every other day of sampling activities so long as no gross contamination problems are noted. If significant contamination problems are noted (e.g., contaminants present which cannot be attributed to laboratory blank contamination), then analyses for the "held" rinse samples are requested.

Final Comment: As is indicated in Analytical Comment #13, we would need to review the Navy's policy statement on QA/QC in order to determine whether this would be acceptable. Please submit a copy of this policy document to EPA and NYSDEC promptly.

5. Page A-3-28
(Draft Comment:) Please specify NEESA's bottle cleaning procedures.

(Permittee's Response): NEESA requirments state that all bottleware must meet IChem 300 Series equivalent of cleanliness and certification. Specific bottleware cleanting protocol can be obtained from IChem upon request.

Final Comment: The Permittee's response is acceptable.

6. Page A-4-17, Table 4-2, Page A-4-33, Table 4-3, Pages A-4-47, A-4-50, A-4-54, Table 4-4, Pages A-4-67, A-4-70, Table 4-5
(Draft Comment:) The sampling objectives and data quality objectives of the "additional analytes" listed in Table 3-1, p.A-3-24, are not delineated. In addition, the report does not mention which constituents will under go the Toxicity Characteristic Leaching Procedure (TCLP), or how the TCLP results will be used. Hence, we cannot comment on the proposed analytical methods, analytical deliverables and data validation protocols until we understand how the "additional analytes" data will be utilized.

(Permittee's Response): All "additional analytes" presented in Table 3-1 refer to engineering parameters. As such these parameters are EPA DQO Level II/III and will be used accordingly. Please see previous comments regarding TCLP analyses and validation of Leve II analyses.

Final Comment: The Permittee's response is acceptable.

7. Pages A-4-18, A-4-32, A-4-49, A-4-50, A-4-51, A-4-66, A-4-67, A-4-79, A-4-80, SOP GH-1.3, Page 5.
(Draft Comment): All environmental soil samples shall be collected with stainless steel, Teflon or glass implements. All environmental soil samples, except VOAs and hexavalent chromium, shall be homogenized in a stainless steel pan with a stainless steel spoon.

(Permittee's Response): Text will be edited to refer to stainless equipment.

Final Comment: The Permittee's response is acceptable.

8. Pages A-4-34, A-4-53, A-4-56, A-4-69, A-4-71, A-4-72, A-4-82, SOP GH-1.7, Pages 5, 6.
(Draft Comment): All new monitoring wells must be constructed of stainless steel.

(Permittee's Response): PVC wells are preferred during the delineation of the nature and extent of contamination at the sites. Stainless steel may be used in the future as part of a permanent monitoring system.

Final Comment: The Permittee's response is acceptable, provided that the permittee agrees to replace the PVC wells with stainless steel wells if they are found to be needed for an extended period of time.

9. Pages A-4-35, A-4-54, A-4-70, A-4-83, SOP SA-1.1
(Draft Comment): Prior to evacuation of a well, the presence or absence of immiscible phases ("floaters" and "sinkers") must be determined. The plan must specify how immiscible phases will be detected and sampled. For high yielding wells, at least three well volumes must be evacuated within three hours of sampling.

If a pump is used to evacuate a well, the pump and tubing must be cleaned with soapy water and deionized water. The tubing which comes in contact with the water must be made of Teflon or polyethylene, and must be dedicated to individual wells. If a bailer is used to evacuate a well, it must be made of Teflon or stainless steel. Bailer cords are to be stainless steel single stranded wire or polypropylene monofilament. Any down-hole equipment having neoprene fittings, PVC, tygon tubing, silicon rubber bladders, neoprene impellers or viton are not acceptable. A bailer which is used to evacuate a well may be used to sample it without additional sampling.

(Permittee's Response): The text will be edited to include the use of an interface probe for the detection of immiscible phases is not planned as part of the RFI. The text states that 3 to 6 well volumes will be purged from high yielding wells prior to sampling.

Text will be edited to include the following clarification: Pumps used to purge wells will be equipped with dedicated, clean polyethylene discharge hose. Suction pumps will not be used to collect groundwater samples. Groundwater samples will be collected using stainless steel bailers and dedicated, clean polypropylene line.

Final Comment: The Permittee's response is acceptable.

10. Pages A-4-51, A-4-63, A-4-68, A-4-80
(Draft Comment:) Which analytical deliverables will be generated by the on site laboratory? When will the laboratory reanalyze samples because of QC problems such as: surrogate recoveries, calibration, internal standard area counts, contaminated method blanks, and analyte concentrations outside the instrument calibration range?
Please submit analytical and data validation SOPs for the on site laboratory. Comment 1 describes the deficiencies in the proposed on site analytical method.

(Permittee's Response): Both the soil gas and temporary well/hydropunch activities are designed as a field screening techniques only. The results of these activities are intended to help focus the environmental sampling efforts. THE QA/QC program associated with the environmental samples. Data generated from soil gas surveys and temporary well sampling will not be validated. Specifics concerning the on-site laboratories will be dependent on the individual subcontractors performing the work. This information will be provided once a subcontractor is selected.

Final Comment: The Permittee's response is acceptable.

11. Page A-4-59
(Draft Comment): Existing PVC monitoring wells may only be used to evaluate the remediation of the contaminated aquifer. PVC wells may not be used to demonstrate clean closure of a contaminated aquifer. In the RFI report, data from PVC wells must be tabulated separately from stainless steel well data.

(Permittee's Response): Agreed.

Final Comment: The Permittee's response is acceptable.

12. Page A-4-88, SOP SA-7.1 Pages 3,4
(Draft Comment): Samplers must use and change disposable gloves at all sampling points. The following decontamination procedure should be used:

a. wash and scrub with low phosphate detergent
b. tap water rinse

c. rinse with 10% HNO_3, ultrapure
d. tap water rinse
e. an acetone only rinse or a methanol followed by hexane rinse (solvents must be pesticide grade or better)
f. thorough rinse with demonstrated analyte free water*
g. air dry, and
h. wrap in aluminum foil for transport

* The volume of water used during this rinse must be at least five times the volume of solvent used in Step e.

(Permittee's Response): The decontamination of sampling eqipment is somewhat analyte and equipment specific. The text wil be edited to propose the following decontamiation procedure.

a. wash and scrub with low phosphate detergent (alcnox or liquinox)
b. potable water rinse
c. 10% HNO, rinse (only necessary for carbon steel equipment used on TAL inorganic samples)
d. steam distilled water rinse (if rinsed in HNO,)
e. methanol rinse (pesticide grade or better)
f. hexane rinse (pesticide grade)(only necessary for equipment used on pesticide /PCB samples)
g. Steamed distilled water rinse
h. air dry
i. wrap in aluminum foil for transport

Final Comment: The Permittee's response is acceptable.

13. Page A-8-1
(Draft Comment): Please submit a copy of Sampling and Chemical Analysis Quality Assurance Requirements for the Navy Installation Restoration Program.

(Permittee's Response): A copy of this guidance document will be provided.

Final Comment: Permittee's prompt submission of this document will enable us to evaluate Permittee's responses to Analytical Comments #4 and 15.

14. Page A-8-2, A-12-1
(Draft Comment): All of the environmental sampling data must be validated. Please provide proposed frequency of validation for the engineering parameters (also designated as "additional analytes"). See comment 6 for additional information on data quality requirements for the "additional analytes".

(Permittee's Response): All environmental testing will be either reviewed or validated based on the test methods. Field screening data are EPA DQO Level II and accordingly, are not formally validated. These data, however, are QA reviewed to ensure that the EPA DQP Level II objectives are met. CLP protocol and CLP data package deliveries will be conducted for all laboratory analyses; these data will be validated in accordance with EPA Region II data validtion protocol for CLP analyses. Engineering parameter data are evaluated with respect to method-specific quality control criteria and the NEES guidlines (20.2-047B), generally DQO Level III.

Final Comment: The Permittee's response is acceptable.

15. Page A-9-1
Trip blanks are only required for aqueous VOA samples. Analysis of rinse blanks is performed for all analytes of interest. One blank should be collected for each type of equipment used each day a decontamination event is carried out.

(Permittee's Response): See response to comment no. 4.

Final Comment: As noted in Analytical Comments #4 and 13, Permittee's prompt submittal of a copy of Sampling and Chemical Analysis Quality Assurance Requirements for the Navy Installation Restoration Program will enable us to evaluate Permittee's responses to Analytical Comments #4 and 15.

16. Page A-12-1
Please indicate how the data on engineering parameters ("additional analytes" listed in Table 3-1, p.A-3-24) will be evaluated.

(Permittee's Response): See response to comment no. 14.

Final Comment: The Permittee's response is acceptable.

NYSDEC Comments on
RCRA Facility Investigation Work Plan
Naval Weapons Industrial Reserve Plant
Calverton, New York

1. Draft Comment: In Table 1-1, the total number of surface water samples should be 7 instead of 8, since the MS/MSD/D samples are not included to calculate the total number of samples.

   Draft Response: Table will be corrected to read 7, not 8, surface water samples.

   Final Comment: Permittee's response is acceptable.

2. Draft Comment: In Table 1-2, surface soil boring samples, the trip blanks should be increased 1 to 2 (minimum 1:20, number of samples to be taken 25).

   Draft Response: The number of trip blanks for the "sub" surface soil testing will be increased from 1 to 2 samples.

   Final Comment: Permittee's response is acceptable.

3. Draft Comment: On Pages A-3-14 and A-3-15 of Table 3-1, the holding time for the TCL volatile for soil should be changed from 14 to 7 days VTSR (from validated time of sample receipt) to be in agreement with the NYSDEC 91 ASP and the NYSDEC QAPjP guidance document.

   Draft Response: The NYSDEC QAPjP guidance is in conflict with the CLP SOW which cites analysis within 10 days of VTSR for volatile soil/sediment samples. The EPA Region II CLP Organic Data Review protocol cites analysis within 10 days of collection. NEESA guidelines reference the CLP SOW (for contractual criteria), and the Regional EPA data validation guidelines (for data utility evaluation). Because CLP protocol analyses are requested, a 10 day VTSR holding time for the analysis of volatile soil/sediment samples will be observed. Table 3-1 will be corrected accordingly.

   Final Comment: The holding time of 10 days VTSR fails to meet EPA Region II requirement. A 7 day holding time has been common for NYSDEC contract labs under the Analytical Services Protocol (ASP). The EPA Region II holding time of 10 days, from time of collection, is acceptable, correct Table 3-1 accordingly.

4. Draft Comment: Also in Table 3-1, the CRDL given for beryllium in soil is 1 mg/kg, which exceed the draft NYSDEC soil action level for beryllium of 0.16 mg/kg. A lower detection limit is needed for this compound. All of the other inorganic CRDLs are below the soil action level values.

   Draft Response: Alternative methods for beryllium analyses are being investigated. However, it was intended that the laboratories provide IDL information as part of the response to the analytical bid solicitation, and that ability to achieve sufficient beryllium sensitivity would be used as one of the award criteria. The soil CRDL for beryllium is 1.0 mg/kg; historically, analytical laboratories have not had difficulty in providing IDLs of < 0.2 mg/kg for beryllium. It should also be noted that risk assessment guidance considers 0.5 mg/kg beryllium as an acceptable background level.

   Final Comment: Correct Table 3-1 to reflect NYSDEC soil action level for beryllium of 0.16 mg/kg.

5. Draft Comment: Also in Table 3-1, the CRQL given for vinyl chloride is 10 ug/l, which exceeds the NYSDEC groundwater action level for vinyl chloride of 2 ug/l. CRQLs must be equal or lower than NYSDEC action levels.

   Draft Response: Laboratory-specific MDLs for vinyl chloride (and other organics) will be compared to appropriate action levels prior to testing. In general, the MDLs are expected to be equal to or less than the action levels. If the MDLs are not found to be acceptable, then EPA Method 524.2 will be used to provide detection limits for vinyl chloride (and other organics) which are less than the appropriate NYSDEC action level. This method of VOA analysis will be requested where applicable.

   Final Comment: Correct Table 3-1 to reflect NYSDEC groundwater action level for vinyl chloride of 2 ug/l.

6. Draft Comment: On Page A-4-32 toward the middle of the page, there is a reference to decontamination of sampling equipment as described in Section 4.7. The correct reference is Section 4.11.

   Draft Response: Text will be corrected to reference Section 4.11.

   Final Comment: Permittee's response is acceptable.

7. Draft Comment: On Pages A-4-31, A-4-40, A-4-60, and A-4-80, the use of a stainless steel trowel is fine, however, a plastic trowel, unless constructed of Teflon, must not be used for placing the soil into the volatile container.

   Draft Response: Text will be edited to refer to the use of stainless steel trowels only.

   Final Comment: Permittee's response is acceptable.

8. Draft Comment: On Pages A-4-35, A-4-54, A-4-70, and A-4-83, the use of dedicate stainless steel bailers is appropriate, however, disposable polyethylene bailer are not permissible. Teflon bailers are acceptable.

   Draft Response: Text will be edited to refer to the use of stainless steel bailers only.

   Final Comment: Permittee's response is acceptable.

9. Draft Comment: On Pages A-4-44, A-4-63, and A-4-75, the description of soil-gas survey proposed does not provide enough detail to adequately assess its usefulness. More detail needs to be provided in the following areas. Specifically, how is the sample collected? Is the air in the tube allowed to equilibrate; is it removed by pumping? How will the GC be calibrated? What QA/QC such blank spikes, or duplicates will be performed for the soil-gas samples?

   These details are known for the TCL compounds because full CLP protocols are being followed. More information needs to be given for the soil-gas section.

   Draft Response: A more detailed description of a general soil gas survey will be prepared. However, the exact sampling procedure will be dependent upon the specific subcontractor performing the survey. The Navy does not want to limit competition by over-specifying testing protocol. Since the soil gas survey is intended as a field screening tool, only blanks and duplicates will be collected. The QA/QC program for the soil gas samples will be less extensive than for the environmental samples.

   Final Comment: The permittee is unwilling at this time to specify the soil gas sampling and testing protocols to be utilized at the facility. Upon selecting a subcontractor and/or subcontractors to perform the work, the permittee must provide the NYSDEC with the specific detailed sampling and testing protocols. The NYSDEC will, within 30 days of

receipt, accept or reject the soil gas sampling and testing protocols. The acceptance of the soil gas sampling and testing protocols by NYSDEC, should be obtained prior to the contract award or commencing the work.

10. Draft Comment: In Tables 1-2, 1-3, and 1-4, it is stated that the soil-gas samples will be analyzed by Method 8010, which specifies the use of a Hall Electrolytic Conductivity Detector (HECD). On Pages A-4-46, A-4-63, and A-4-78, some of the calibration compounds and compounds of concern at this site, e.g., benzene, toluene, and ethyl benzene, will not be detected by a HECD. Please explain this discrepancy.

    Draft Response: The soil gas samples will be collected and analyzed for the compounds listed in the Work Plan. It is anticipated that the subcontractor will use Method 8020 and a Photo-Ionization Detector (PID) in series (PID first) with Method 8010 and the HECD. The tables will be updated to reflect this clarification.

    Final Comment: Permittee's response is acceptable.

11. Draft Comment: On Pages A-4-35, A-4-54, A-4-70, and A-4-83, volatile organic samples must be collected within 3 hours after completing the evacuation of the well, as per Page E-33, of the New York State Department of Environmental Conservation RCRA Quality Assurance Project Plan Guidance document.

    Draft Response: The text will be revised to reflect that, where possible, samples will be collected within 3 hours of well purging. Only if wells do not sufficiently recover (70%) within the 3-hour period will a longer time period prior to sampling be required. For these low yielding wells, samples will be collected when the wells have recovered to 70% or within 24 hours. Time of purging versus time of sample collection is recorded on the sample log sheets.

    Final Comment: The volatile organic sample must be collected within 3 hours of well purging, to insure a representative sample of the aquifer is collected. Whenever full recovery of a well after purging exceeds 2 hours, extract a volatile organic sample as noted above. A sufficient volume may be collected within 24 hours for the remaining parameters.

12. Draft Comment: On Page A-4-41, Geophysical Survey, please provide more specific detail such as overlay size of sampling grid and grid interval.

Draft Response: Text will be edited to indicate that a sampling grid will be overlain across the proposed area of investigation. A grid with approximately 10 to 15-foot line spacings is anticipated. However, the specific size of the sampling grid may be modified by the subcontractor based on their expertise.

Final Comment: Permittee's response is acceptable.

13. Draft Comment: On Page A-4-89, at the bottom of the page, it is stated that fluids (water) with elevated OVA reading will be containerized while fluids without will be discharged. Please define an elevated OVA reading.

Draft Response: Text will be edited to refer to elevated OVA readings above background levels (greater than approximately 1 ppm).

Final Comment: Permittee's response is acceptable.

14. Draft Comment: On Health and Safety Plan, Section 11.0, please provide a map showing the location of on-site emergency response team.

Draft Response: It is not clear as to what is meant as the on-site emergency response team. Grumman Security serves the facility as coordinator of all emergency response needs (fire, first aid, spill response, etc.). Grumman Security is located at the front gate and can be reached by telephone from anywhere on the facility. The telephone number is provided on the Emergency Reference Information poster (Page D-43).

Final Comment: The Health and Safety Plan must specifically identify the emergency resources (fire, first aid, spill response, and etc.) available and their capacity to respond to any anticipated emergency. Which of these resources are available on-site through Grumman? What off-site support may be necessary; and where are they located? Based upon the size of the site and its restricted access, additional access points, other than the south gate, may be appropriate depending location of off-site responders, and their anticipated route of travel. Provide map showing location of all emergency resources.

15. Draft Comment: Also on the Health and Safety Plan, please provide a list of the police and fire departments, contractors, and State and local emergency response teams that would be contacted to provide assistance in the event of an emergency.

Draft Response: Direct contact with these departments/teams could cause significant confusion. Therefore, as indicated under the response to Comment 14, Grumman Security will serve as the coordinator of all emergency response needs.

Final Comment: Grumman Security will respond to emergency needs based upon existing Grumman Health and Safety Plan or standard operating procedures. Review the same to determine if adequate, and furnish copies of those plans and/or procedures. It may be necessary to update and modify these documents.

16. Draft Comment: On Page E-33, Section H, TRC Members, change NYSDEC representative.

Draft Response: Text will be edited to reflect change. This is acceptable to NYSDEC.