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MARTIN MARIETTA ENERGY SYSTEMS, INC.

POST OFFICE BOX 2003
OAK RIDGE, TENNESSEE 37831-7201

February 11, 1991

Ms. Maritza Montesinos-Gross
Atlantic Division, Code 1822
Naval Facilities Engineering Command
Norfolk, Virginia 23511-6287

Dear Ms. Montesinos-Gross:

Review of the Final Draft RI/FS Work Plan for the Remedial Investigation/Feasibility Study for Sites 15 and 16 at Naval Station Roosevelt Roads, Puerto Rico - January 14, 1991
Contract No.: Not Supplied

The referenced work plan has been reviewed in accordance with the document "Sampling and Chemical Analysis Quality Assurance Requirements for the Navy Installation Restoration Program", NEESA 20.2-047B. The following comments are offered for consideration.

Work Plan

There are no comments regarding the work plan.

Appendix A, Field Sampling Plan

1. Table 2: The August 1987 Contract Laboratory Program Statement of Work (CLP SOW) is referenced as the analytical method. The applicable SOW for current Navy work is the February 1988 version, as is referenced on Page 13 of the Quality Assurance Project Plan (QAPP). Please note, the recommended holding time for Navy soil samples is 14 days from date of collection to extraction and 40 days to analysis.
2. Table 3: A total of 122 soil or sediment samples is scheduled to be collected, along with 8 duplicates. The Navy program specifies that field duplicates are to be obtained on a 10% basis (NEESA 20.2-047B, Page 19). It was also noted that Page 36 of the QAPP states duplicates will be obtained at a rate of 1 per 20 soil samples.
3. Page 26: It is recommended that 1 equipment rinse sample be obtained from a representative piece of sampling equipment to ensure that the decontamination procedure was adequate. If it is necessary to utilize equipment to obtain more than 1 sample, equipment rinse blanks and field blanks should be obtained.

Appendix B, Quality Assurance Project Plan

1. The text should clearly state the quality control level governing the analysis of samples. The analysis of PCBs in soil and sediments may be governed by Level C or D. Information regarding quality control levels and deliverables may be found on Pages 4 and 60 of NEESA 20.2-047B.

2. Page 13: It is not clear if the acceptance criteria provided on Table 1 is for the matrix spike recoveries or for the laboratory control samples (blank spikes). The acceptance criteria for the blank spikes should be more stringent than the criteria for the matrix spikes as no matrix interferences are expected.
2. Page 30: Two different modified run sequences are provided for the analysis of PCBs. It is recommended that the sequence which includes AR1016 be utilized. It is understood that the run sequence was modified due to the infrequent detection of AR122, AR1232 and AR1248. It is recommended, however, that standard AR1248 be analyzed at least once during the 72-hour sequence.
3. Page 30: According to the QAPP, if the list of samples is particularly long, a mid-run standard is recommended. Please define exactly how many samples may be analyzed before a mid-run standard is required according to Versar laboratory procedure. Although CLP dictates the procedures for pesticide/PCB analytical runs, the requirements for PCB analyses are not defined.
4. Page 31: Versar criteria for standard calibration factors are less than 15% Relative Standard Deviation (RSD). Although the CLP has not defined criteria for PCBs, the pesticide criteria are 10% RSD. Similarly, the Versar criteria for continuing and final standard comparison results are a maximum of 20% difference; the EPA pesticide criteria are 15% difference on quantitation columns.
5. Page 36: Please define the analyte to be used in the laboratory control sample (blank spike) and the acceptance criteria. Although CLP does not require the analysis of any type of PCB quality control sample (surrogate or matrix spike), analysis of an aroclor spike is required under the NEESA program.
6. Page 33: Validation is to be performed independently of the laboratory performing the analysis. Although the laboratory reviews the data and flags out-of-control events, the data is deemed usable or unusable during validation.

According to the work plan, the EPA Functional Guidelines will be used to validate the data. As demonstrated by questions 3 through 5, CLP has not clearly defined acceptance criteria for PCB analysis. The validation guidelines, therefore, are not adequate to evaluate the project data. Guidelines should be based on the Versar acceptance criteria and must meet with the approval of the regulators.

7. The QAPP does not discuss second column confirmation. The Navy program and CLP require second column confirmation on all positive hits obtained by gas chromatography.

Ms. Maritza Montesinos-Gross

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If there are any questions or comments, please call me at (615) 574-5270.

Sincerely,

A. Barnard-Hatmaker for

Marilew H. Bartling
Project Manager

MHB:mpl

cc: A. R. Barnard-Hatmaker
M. H. Bartling
N. A. Luedtke
R. Wandrocke, NEESA
Letter File
Project File - RC