

**NAVY RESPONSE TO EPA COMMENTS ON
QUALITY ASSURANCE PROJECT PLAN,
HUNTERS POINT ANNEX**

Comments by the EPA on the Draft QAPP (dated April 27, 1988) have been reproduced below in boldface type. The Navy response is presented below each EPA comment.

COMMENT #1: Page 8-2. Field filtering is performed when dissolved metals are requested for analysis. Explain why dissolved metals, rather than total metals, are the parameter of interest.

RESPONSE #1: Dissolved metals are the appropriate parameters of interest for ground-water samples. Field filtering will be done when dissolved metals are the parameter of interest. In situations where total metals are the parameter of interest (for example, to evaluate suspended sediment in surface water), samples will not be filtered, but will be preserved with acid, as noted on Table 3. The parameter(s) of interest will be specified in the appropriate sample plan(s).

The description of the filtering procedure has been modified to clarify that this procedure will be used when dissolved metals are the parameter of interest.

COMMENT #2: Page 14-1. Acurex Corp. is presently on EPA Project Officer hold, therefore, under the CLP heading, the symbol Y should be changed to P. Also, Anametrix Inc. has now become a CLP lab: the P should be changed to Y. All of the labs listed do not analyze each of the parameters mentioned in the QAPP. Please refer to DHS comment 14.

RESPONSE #2: Appropriate revisions regarding CLP certifications have been made to the QAPP. Additionally, the QAPP has been revised to clarify that only appropriately certified labs will be used for analyses.

COMMENT #3: Page 15-1. After determining that particular data cannot be validated, where is this documented and how is this data stored?

RESPONSE #3: All data generated for the facility will be stored in a computerized data base management system (DBMS). Qualifiers, similar to those in the CLP Statement of Work (SOW), will be used in the data base to identify the type of QC review performed and to provide an indication of the quality of the data. If an increased level of validation is performed on samples at a later date, the qualifier will be modified, as appropriate.

COMMENT #4: Page 15-2. Appendix C discusses the information necessary for data validation. The actual approach to be used to validate the data should be discussed in an additional appendix.

RESPONSE #4: Section 14.2 (new numbering) has been revised to clarify the procedures for data validation. As revised, data will be validated according to the EPA's functional guidelines for validation of laboratory data. The determination to perform data validation will be based on data uses and data quality needs for the decision-making process. However, an evaluation of the data will be performed as data are received from the laboratories, shortly after entry of the data into the DBMS. The evaluation will consist of inventorying laboratory deliverables and an assessment of internal and external QC. The results of the QC evaluation will be used to assign data qualifiers in the DBMS and to assess the need for corrective actions.

COMMENT #5: Page 15-4. The term lot referred to on this page is defined on page 16-1 as 5-10 samples for organics and 10-20 samples for inorganics. In the CLP, 20 samples equals one lot for both organics and inorganics. Thus, lab duplicates and blanks are performed at a frequency of one for every 20 samples collected or one per day, whichever is greater.

RESPONSE #5: The term "lot" has been redefined to be consistent with CLP terminology. Thus, a "lot" will consist of 20 samples for both organics and inorganics. Internal and external blanks, duplicates, and spikes will be collected as appropriate at a minimum of one for every 20 samples collected or one per day, whichever is greater.

- COMMENT #6:** Page 15-4-15-5. As stated in this section, surrogate spikes will be performed on all samples where appropriate. Please note that CLP protocol requires that surrogates be added to all blanks and QC samples for Volatiles, semi-Volatile and Pesticides/PCBs analysis (refer to the attached letter).
- RESPONSE #6:** Surrogates will be added to all samples and QC samples for which volatiles, semi-volatiles, and pesticides/PCBs analyses are requested. Appropriate revisions have been made to the QAPP.
- COMMENT #7:** Page 16-2. The compounds and the spiking levels for the external spikes should be defined. With reference to the attached letter, blind spikes may be submitted at a frequency of one for every 20 samples collected.
- RESPONSE #7:** The spiking compounds, levels, and frequency will be consistent with CLP SOW procedures and specifications.
- COMMENT #8:** Page 16-2. The method of calibration (internal or external standard) to be used for quantization must be specified. The CLP requires a 5 point calibration curve for volatiles and semi-volatiles analysis. Standards must be traceable to EPA standards.
- RESPONSE #8:** Calibration procedures will be consistent with specifications in the CLP SOW. For calibration purposes, EPA or equivalent standards will be used.
- COMMENT #9:** Page 16-3. The matrix spiking (referred to as internal spike in the QAPP) compounds and levels should be defined. Also, how will the spike data be used?
- RESPONSE #9:** Spiking compounds and levels will be consistent with CLP SOW protocols. As specified in the QAPP, the spike data will be plotted in QC control charts and will be assessed to evaluate "the accuracy of the total analytical method."
- COMMENT #10:** As is stated in the DHS comments (Section 19, 3-4), the statistical analysis should stop after calculation of the RPD and percent recovery.

RESPONSE #10: The use of the QC charts has been revised. For the purposes of comparing QC data to QC criteria, statistical analysis will stop after calculation of the RPD and percent recovery.

COMMENT #11: The basis for the control charts is incorrect. The use of this approach is unacceptable and must be reevaluated. Please contact us so that we can discuss this matter further.

RESPONSE #11: The use of the quality control charts has been revised. The charts will be used solely as a graphical means of displaying and evaluating QC data and will not be used to determine QC goals. However, the calculation of the standard deviation will be performed to statistically evaluate variations in the data received from the laboratories. These evaluations will be used to monitor long term trends in the QC data and will be based on specific analytes. References to statistical analysis subsequent to calculation of RPD and percent recovery have been deleted from the QAPP.

COMMENT #12: Page 19-5. The compounds of interest to be used to calculate the matrix spike sample percent recovery should be indicated.

RESPONSE #12: The spiking compounds to be used to calculate the matrix spike sample percent recovery will be those specified in the CLP SOW.

COMMENT #13: Table 1, Precision. The source of the values footnoted with (1) should be cited.

RESPONSE #13: Footnote 1 of Table 1 is included near the bottom of the second page of the table. The footnote states that the goals shown are from the EPA's "Test Methods for Evaluating Solid Waste," SW-846, Third Edition, November 1986. For example, acceptable RPD for surrogate compounds were obtained from Form II, Surrogate Percent Recovery Summary for water and soil matrices.

COMMENT #14: Table 1. RPD values are given for asbestos, anions/cations, cyanide and radioactivity. The source or an explanation of how these values were determined should be established.

RESPONSE #14: As stated in footnote 2, quality assurance goals for these parameters were established based on prior project experience and past laboratory performance. These goals will be evaluated further once analytical results for these parameters are available from the laboratories, and will be revised, if appropriate.

COMMENT #15: Table 1-2. The RPD and RPR limits given in these tables are higher than the limits used in the CLP. Please cite of these values and refer to the SW 849, August 1987, for the current CLP inorganic and organic QC limits.

RESPONSE #15: The limits shown on Table 1 are from Chapter I of SW-846. These limits were established based on the total range of QC limits shown on Forms I through X, as appropriate. For example, Table 1 shows a RPD of 20-160 percent for pesticides/PCB's, which was obtained from Form IIE, *Water Surrogate Pesticide Recovery*. When QC limits for internal QC samples were not available in SW-846, the limits historically obtained by the analytical laboratory for the method were used in establishing the goals presented in the QAPP. For external QC samples, QC limits were established based on prior project experience and laboratory performance.