



ICF TECHNOLOGY INCORPORATED

MEMORANDUM

Date: January 8, 1988

Subject: Review of QAPP for NAS Moffett Field RI/FS

From: Jerome Vail, ESAT Sr. Investigative Coordinator *JV*

To: Julie Anderson, Acting Chief (T-4-2)
Federal Enforcement Section

Through: Kent Kitchingman, Chief "Original Signed By": DK
Quality Assurance Management Section, (P-3-2)

The NAS Moffett Field Quality Assurance Project Plan prepared by IT Corporation, 12-10-87, generally meets QAMS guidelines. The area of largest concern is determining the number and location of sampling sites. In addition, there are questions about laboratory methods, QC samples and laboratory reports. Specific comments follow. Comments preceded by an asterisk (*) are of secondary importance.

p.4-1

1. Describe what role the Quality Assurance Officer has in the project. How does the QAO interact with the Quality Assurance Coordinator?

p.4-5

2. Describe the nature of work to be subcontracted, what quality assurance standards will apply to subcontracts involving environmental measurements, and how they will be monitored.

p.5-3

3. Give more information on field QC sample objectives. Specifically, elaborate on what a "significant variation" would be.
4. What detection limits are necessary to meet project needs? Do the CLP detection limits given in Table 5-1a meet these requirements? Consider applicable regulatory criteria in specifying detection limits and show that those selected are suitable.
5. Discuss proposed precision and accuracy objectives in relation to specific intended uses of data.

Table 5-2

6. Give accuracy objectives for those parameters for which "Not Applicable" are listed or explain why setting objectives is not possible (especially for total petroleum HC and tetraethyl lead). Where analytical methods do not contain precision and accuracy criteria use previous history as a guide.

The intent of footnote "a" is unclear.

Method 613 measures 2518-TCDD only. What method will be used for other TCDD isomers and furans?

p.6-1

7. Provide the following information regarding sample collection: method of selecting sample site locations, and rationale. If this information is contained in the sampling and analysis plan, cite specifically where it is located.
8. Describe what procedures are used to prevent volatile losses in soil. Include how soil samples to be analyzed for volatile organics are to be handled. If brass tube samplers will be employed, describe what procedure will be used in the field or laboratory to take an aliquot for analysis.
9. Include container cleaning procedures.

Table 6-1

10. Include information for parameters not listed (e.g. total petroleum hydrocarbons, tetraethyl-lead)

It is recommended that preservation of VOCs be accomplished by adding 2 drops of 1:1 HCl per vial. Strictly following the 40CFR 136 procedure of pH adjustment could lead to volatile losses if repeated stirring or shaking are employed.

p.7-2

11. Discuss custody seals in Section 7.3 (mentioned in Section 7-4).

p.7-4

12. Samples requiring refrigeration should remain refrigerated until after analysis is complete and the analytical report is reviewed and approved by the Project QA Coordinator.

Table 8-1

13. Define linearity for non-CLP method calibrations (e.g. IR, IC)

Table 9-1

14. Provide more information on total petroleum hydrocarbon and tetraethyl lead methodology. Supply copies of methods to be used.

When specifying CLP methods, cite appropriate sections and edition of CLP Statement of Work (SOW).

P.10-1

15. What mechanism will exist for validating laboratory data? Describe how field QC samples will be checked and who will be responsible.

Table 10-3

16. Cite the analytical method on all laboratory reports. The actual method used should be specifically referenced. If method modifications are necessary to successfully complete the analysis, the modifications should be described in the laboratory report.

Describe what QC samples will be reported and what data will be included in laboratory reports. A copy of "QC/QA Requirements for Reviewing the Data Generated by Responsible Parties" is attached. If EPA review of the data is anticipated, this documentation is required. Inorganic data packages should include sample results, raw data, instrument printouts and calibration records.

p.11-8

17. In the first paragraph of Section 11.2.4, "organics" should be "inorganics."
18. In Section 11.2.5 cite the source of "EPA guidelines" for "holding times, sample storage provisions" and "reagent storage environment and duration."
19. Describe what "statistical analyses" will be performed on QC samples.

p.11-1

20. Describe what QC limits will apply for field and laboratory duplicates.

p.11-5

21. Specify surrogate control limits for all applicable organic analyses in Section 11.2. Include the source of this information or how it was calculated.

p.11-9

22. Describe how "independent laboratory verification" will be assured. What analytical methods and QA protocols will Martin Marietta Energy Systems use? Describe how data from IT and Martin Marietta labs will be compared and how differences will be resolved.

Table 11-1

23. It is unclear if the limits in Table 11-1 will be used as criteria for reanalysis or are merely advisory.

What QC limits apply to those parameters designated "N/A"? In particular, give QC limits to be used for total petroleum hydrocarbons.

p.12-1

24. Even though it may not be possible to give an audit schedule at this time, state the minimum frequency for performance and system audits.

ENCLOSURE

REVIEW OF
REMEDIAL INVESTIGATION WORK PLAN
QUALITY ASSURANCE PROJECT PLAN

THIS ENCLOSURE WAS NOT SUBMITTED TO THE
ADMINISTRATIVE RECORD FILE.

QUESTIONS MAY BE DIRECTED TO:

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ATTACHMENT

REVIEW OF
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QUALITY ASSURANCE PROJECT PLAN

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