G-000-303.55

4066

IMPLEMENTATION OF ANALYTICAL METHODS IN THE SITE-WIDE COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA) QUALITY ASSURANCE PROJECT PLAN

02/03/93

DOE-1017-93
DOE-FN/EPA
3
LETTER

Department of Energy
Fernald Environmental Management Project
P.O. Box 398705
Cincinnati, Ohio 45239-8705
(513) 738-6357

4066

FEB 0 3 1993

DOE-1017-93

Mr. James A. Saric, Remedial Project Director
U.S. Environment Protection Agency
Region V - 5HRE-8J
77 West Jackson Street
Chicago, Illinois 60604

Mr. Graham E. Mitchell, Project Manager
Ohio Environmental Protection Agency
40 South Main Street
Dayton, Ohio 45402

Dear Mr. Saric and Mr. Mitchell:

IMPLEMENTATION OF ANALYTICAL METHODS IN THE SITE-WIDE COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA) QUALITY ASSURANCE PROJECT PLAN (SCQ)

Enclosed are example SCQ method selection tables for your review. These tables were discussed in a call between EPA, Department of Energy, Fernald Field Office (DOE-FN) and Fernald Environmental Restoration Management Corporation (FERMCO) on January 28, 1993. As discussed, the analytical methods will be removed from the SCQ and replaced with the method selection tables and an introductory section explaining the use of the tables. Performance acceptance criteria for each method will be specified in the method selection tables. Standard methods will be identified by reference.

The organic and inorganic analysis will be conducted to CLP and SW-846. These methods are standard EPA methods which have been promulgated in the Code of Federal Regulations and are being used for RCRA and CERCLA analyses by every commercial environmental laboratory throughout the country. Due to the lack of industry standards for radiochemical analyses, laboratories will be permitted to use any available method, provided that they can provide validation data for the method and meet the FERMCO established performance criteria (Quality Control Criteria).

Use of the methods described above will ensure data comparability from different laboratories and will also ensure continuity with data previously generated for the Site RCRA and CERCLA analyses. Finally, use of standard methods is consistent with Quality Assurance documents from a variety of organization/agencies (for example, Nevada Test Site analytical specifications).

Recycled and Recyclable

DOE/FN and FERMCO are committed to generating high quality analytical data in a cost-effective and timely fashion regardless whether the data is generated on-site or off-site. Our adoption of standard analytical methods will not compromise this commitment.

If you or your staff have any questions concerning this transmittal, please contact me at FTS/Commercial (513) 774-6159 or R.C. Janke of my staff at (513) 738-6937.

Sincerely,

for Johnny Reising

Jack R. Craig
Fernald Remedial Action
Project Manager

FN:RC Janke

Enclosure: As Stated

cc w/enc.:

K. Bolger, USEPA-V, 5SMQA
J. Mitchell, USEPA-V
R. Hernon, EM-424/GTN
W. Kehew, DOE-FN

cc w/o encl:

P.F. Clay, FERMCO
N.C. Kaufman, FERMCO
H.E. Richardson, FERMCO
AR Coordinator, FERMCO

PROTOCOL: SW-846
METHOD: GC/MS for Volatile Organics (8240)
ASLs: B only

REQUIREMENT	FREQUENCY	ACCEPTANCE LEVELS	CORRECTIVE ACTION
1. IAP	Start each 12 hr. period	Per method, Table 3	Retune
2. IC	Begin, following tune	Per method	Recalibrate
3. CC	Every 12 hrs, following tune	Per method	Recalibrate
4. MB	Each Batch	< PQL[a]	Reanalysis
5. MS/MSD	Each Batch	Per method	DQO driven
6. Surrogates	All Samples	Mean +/- 3 std. dev.	Per method

7. Detection Limits.....Per Method

8. Analyte Lists.....Per Method

9. Standards Concentrations.....Per Method
(Calibration, IS, Surrogates
IAP, and spike etc.)

10. Calibration Points.....Per Method

11. Calibration Range.....DQO driven

IAP - Ion Abundance Pattern (tune)

IC - Initial Calibration

CC - Calibration Check (includes SPCCs & IS)

MB - Method Blanks

MS/MSD - Matrix Spike, Matrix Spike Duplicates

SPCCs - System Performance Check Compounds

IS - Internal Standard

(a) Five times (5x) the Practical Quantitation Limit (PQL) for common solvents (i.e. acetone and methylene chloride).

PROTOCOL: SW-846
METHOD: ICP-AES (6010)
ASLs: B only

REQUIREMENT	FREQUENCY	ACCEPTANCE LEVELS	CORRECTIVE ACTION
1. ICV	Begin	90% - 100%	Recalibrate
2. CCV	Every 10 Sxs	90% - 110%	Recalibrate
3. MB	Each batch	Per method	Redigest batch
4. ICS	Begin & end or every 8 hrs.	80% - 120%	Reexamine background/ reanalyse
5. MS	Each matrix	75% - 125% (MS) 75% - 125% (PDS)	Redigest or post-digestion spike (PDS) or M.S.A.
6. DUP	Every 20 Sxs	RPD < 20% for sxs 10x IDL	DQO driven or M.S.A.

7. Detection Limits.....Per Method

8. Analyte Lists.....Per Method

9. Standards Concentrations.....Per Method
(Calibration, ICS, and spike etc.)

10. Calibration Points & Ranges.....Per Method

ICV - Initial Calibration Verification

CCV - Continuing Calibration Verification

MB - Method Blank

ICS - Interference Check Sample

MS - Matrix Spike

DUP - Duplicate

IDL - Instrument Detection Limit

MSA - Method of Standard Additions