

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 10

0009141 JUN 04 1990

9002345



Hanford Project Office
Federal Building, Rm. 178
P. O. Box 550, A7-70
Richland, Washington 99352

May 30, 1990

REPLY TO
ATTN OF:

A7-70

S. H. Wisness
Hanford Project Manager
U.S. Department of Energy
P.O. Box 550, A6-95
Richland, Washington 99352



Re: Liquid Effluent Study Data Validation

Dear Mr. Wisness:

In our May 2, 1990 letter, we requested data to be submitted on every stream specific sample collected and analyzed as part of the Liquid Effluent Study. This submission was to include the complete supporting laboratory quality assurance and quality control documentation. We received two documents from DOE in response to this request. These documents were the quarterly U.S. Testing Company quality control reports for October 1, 1989 to December 31, 1989 and January 1, 1990 to March 31, 1990. While this information is useful to a limited degree, it is not what we expected in our request.

We intend to perform a data validation review on selected raw laboratory data for the Liquid Effluent Study. The information typically required, by the EPA, for such a review is listed in Chapter 1 of SW-846, Third Edition. We realize that there may be some differences between EPA requirements and DOE requirements under its laboratory contract. However, we need the information as specified Enclosure 1 in order to conduct a thorough validation of the data.

Enclosure 1 deals primarily with information regarding organic and inorganic types of analyses. Similar information dealing with analysis of radiological parameters is also needed, including appropriate information to evaluate calibration, recovery of analytes, blanks, precision and accuracy.

This request is limited to that information which is presently available. Based upon our review, we may specify additional information which needs to be generated and submitted in order to conduct the data validation process. This could include requests for documentation that may not have been required by the laboratory contract, but could be assembled from existing documentation information. It may also include requests

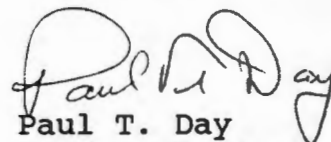
May 29, 1990

for documentation that was not requested under the current laboratory contract and that cannot be generated from existing information. In this situation, each case shall have to be reviewed on a specific basis to determine if generation of such documentation should commence for all future work or if resampling and analysis for specific projects will be required to generate the necessary documentation.

The specific projects and samples for which we are requesting data is attached as Enclosure 2. Please provide all the information requested by this letter no later than **June 17, 1990**. You may wish to provide this information in incremental packages, so our data validation can begin as soon as possible.

If you have questions on any of the above, please contact either Bruce Wood of our Seattle office at FTS 399-1193 or me at (509) 376-6623.

Sincerely,



Paul T. Day
Hanford Project Manager

Enclosures

cc: G. Hofer, EPA
T. Nord, Ecology
~~L. Bowers, WRC~~
B. Woods, EPA
M. Dev, DOE
D. Lacombe / L. Hooper, PRC

Enclosure 1

Analytical Data Quality Control Information

1. Analytical Results - analyte concentration, sample weight, % water or solids, final volume of extracts or diluted samples, holding time information.
2. Instrument Calibration - Initial and continuing instrument calibration information, including standards preparation and quantities injected, criteria used to determine calibration if such information cannot be cited or referenced to established methods.
3. Column Degradation Check - degradation checks where appropriate for pesticides and chromatograms.
4. Extraction/Digestion Information - copies of extraction logs or other information providing date of extraction for each sample and any other sample preparation data that is available.
5. Surrogate Information - amount of surrogate spike added & recovery for the surrogates.
6. Matrix Spike/Matrix Spike Duplicate - amount spiked, % recovery and relative % difference for each compound spiked into samples in an analytical batch.
7. Check Sample - amount spiked and % recovery of each compound spiked.
8. Blank - identity and amount of each constituent.
9. Chromatograms - all chromatograms for reported results, labelled with sample identification, method identification, analyte retention times marked, instrument identifier.
10. Quantitative Chromatogram Reports - retention time of analyte, amount of sample injected, area or peak heights for analytes found, date and time of injection, etc.
11. Mass Spectrum - spectra of analytes from actual analysis for all compounds identified including internal standards and surrogates, spectra should be compared to authentic spectra or to library spectra, instrument identifier, etc.
12. Metal Interference Check Sample Results
13. Detection Limits - reported for each instrument and procedure if necessary.

14. Results of Standard Additions - for metals analyses.
15. Results of Serial Dilutions - for metals analyses.
16. ICP Interelement Correction Factors and ICP Linear Ranges.
17. Chain of Custody

Enclosure 2

Sample Documentation Requested

<u>Site</u>	<u>Sample Number</u>
T-Plant Laboratory Wastewater - Torch Water	50971, 50972, 50973, 50974, 50975
Purex Process Condensate	59171, 59172, 59173, 59174, 59176, 50895, 59181, 50935
222-S Laboratory Wastewater	50661, 51079, 51080, 51081, 51082
300 Area Wastewater	50665, 50666, 50667, 50668, 50669

CORRESPONDENCE DISTRIBUTION COVERSHEET

Author	Addressee	Correspondence No.
P. T. Day, EPA	S. H. Wisness, DOE-RL	9002345

Subject: LIQUID EFFLUENT STUDY DATA VALIDATION

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