Number: ~~2346~~ XXX
Revision: Draft

LABORATORY QA WORK PLAN
ANALYSIS OF HANDFORD SITE SAMPLES

ANALYTICAL CHEMISTRY DEPARTMENT
TECHNICAL SERVICES DIVISION

JUNE 1990

M.S. Dill

Approved by:

_____
R.W. Morrow, Lab Director

_____
M.S. Dill, QC & Methodology Manager

_____
C.R. Kirkpatrick, Program Manager

TABLE OF CONTENTS

ACRONYMS

AC	Analytical Chemistry Department
QAP	Quality Assurance Program
QA	Quality Assurance
QC	Quality Control
SOP	Standard Operating Procedure
CLP	Contract Laboratory Protocol issued by EPA
PM	Program Manager
WHC-OSM	Westinghouse Handford Company, Office of Sample Management
WDOE	Washington State Department of Ecology
EPA	Environmental Protection Agency

LABORATORY QC WORK PLAN
for the
HANFORD SITE SAMPLES

0.0 INTRODUCTION

This project plan is specifically for the analysis of samples from the Handford Site and covers all elements associated with the receiving, the actual analysis, report preparation, reporting, etc. This work plan is formated per the "Quality Assurance Plan for the K-25 Analytical Chemistry Laboratory." QAP: 04/90-0001 and is based on the draft Statement of Work from WHC-OSM.

This task involves the analysis of hazardous chemical samples for the purpose of characterization in accordance with the requirement of EPA. The task begins with the receipt of samples and encompasses all phases of analysis, data reporting and salvaging of the samples. Both organic and inorganic analyses are required.

1.0 PROJECT ORGANIZATION AND RESPONSIBILITY

1.1 ORGANIZATION

This plan is organized within the QAP: 04/90-001, Quality Assurance Plan for ACD and incorporates individual SOP's for the operation of the laboratory. This plan is specific for samples from WHC-OSM.

The K-25 Plant Laboratory operates under the programatic system with the Program Manager being the main source of contact between the customer and analysis sections.

1.2 RESPONSIBILITIES

Lab Director -

Has over responsiblity for the operation of the laboratory including the analysis and the QA/QC functions.

QA & Methodology Manager -

Has total responsibility for the QA/QC associated with all the analysis, data reporting, response to audit findings, control charts, internal control programs, and Quality Investigation Reports (QIR's).

Program Manager -

The PM is the principle contact between the customers and the laboratory. The duties consist of the planning, estimating work schedules, requesting proper methodology, compliance with the DOE Orders and policies and the assurance that the customer requests are fullfilled.

Sample Management Leader -

Responsible for total sample management including the receipt of samples, entry into Analis, archieving, disposal of waste, reporting data to customers, etc.

Laboratory Section Leaders -

Section Leaders have the responsibility for supervision of group leaders, technicians, and chemist. They also ensure that the stated methodology is applied and the appropriate QC followed. They also furnish technicial guidance for the analysis being performed.

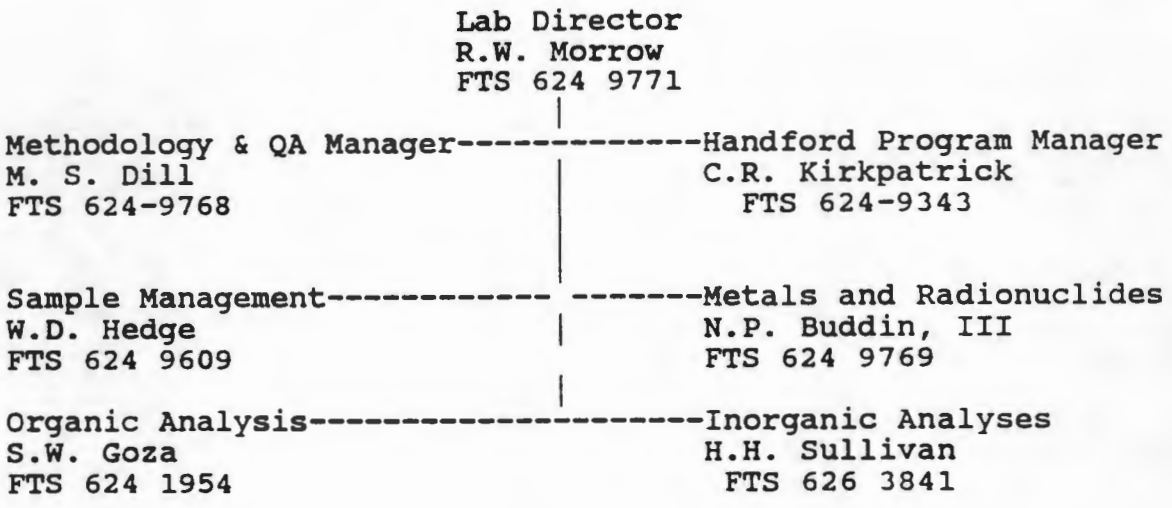
Group Leaders -

The group leaders provide direct supervision to laboratory personnel performing the analysis and provide technical assistance.

Chemists and Technicians -

Chemists and technicians perform the actual analysis under the direction of group leaders and section leaders. This includes subsampling if required.

ORGANIZATION SCHEMATIC



2.0 QUALITY ASSURANCE PROGRAM

2.1 SCOPE

The mission of the laboratory in waste characterization and environmental analysis is to provide high quality measurements and data that fullfill the needs of the customer by meeting defined standards of quality. This involves all types of waste and enviromental analyses including low level radioactive samples. Data quality objectives are defined by:

(1) Standards specified by the customer
(2) Standards specified by QAP:04/90-0001
(3) Standards which meet the requirement of NQA-1
(4) Standards specified by regulatory procedures

2.2 PURPOSE

The purpose of this document is to provide a summary of each of the activities of the laboratory as they apply to the measurement of waste environmetal samples and the reporting of data to the customer.

2.3 ASPECTS OF THE QC PROGRAM

QA Terminology used by the laboratory is covered in the following procedure:

The Quality Assurance Program of the laboratory consist of three key areas:

(a) Responsibility - The responsibility for producing high quality data is mandated, supported, and implemented at all management levels relative to sample analysis, data validation, and the reporting of data to the customer.

(b) Quality Control - This incorporates the following components within the laboratory:

Procedures incorporating sample management
Mandated use of approved procedures
Good laboratory practices as specified in SOP's
Education and formal training

(c) Qualification - The following procedures cover the qualification and training of technicians performing the work.

Procedure 2205 Performance Based Training for Laboratory Personnel
Procedure 2337 Qualification of Personnel

Resumes' are on file for lab personnel.

2.4 QUALITY ASSURANCE REPORTS

There are no requirements for QA/QC activity or progress reports for this project. Sample reports will include QC data required by the analysis protocol. QC charts are avaliable for the following upon request:

Sample Blanks	Duplicate Sample Control Charts
Internal or bench control charts	Surrogate Recovery Charts
Spike recovery control charts	Replicate Measurements

Customers may encounter unexpected incidents relating to samples or requests submitted to the laboratory that affect their projects either in time or goals. When these incidents occur the requestor will be notified without delay. The procedure for reporting incidents of this type is:

Procedure 2340 Reporting Incidents to Customers

3.0 DESIGN CONTROL

Within the laboratory organization there is a program management function which has the responsibility of developing, coordinating, and directing the sample analysis program. For the WHC-OSM Samples the following applies:

The PM will assign an identifying project number for the Handford samples and a subproject number for specific group or types of samples prior to the receipt of samples by the K-25 Lab. These identifiers will provide a traceability record for all samples analyzed under the project.

Contact Personnel in order of contact

C.R. Kirkpatrick,	FTS 624 9343	Program Manager
M.S. Dill,	FTS 624 9768	QC Manager
R.W. Morrow,	FTS 624 9768	Lab Director
Off Shifts	FTS 624 3282	Plant Shift Supervisor

Control will begin with the the receipt of the shipping cooler. The receipt of the cooler will be per SOP 2332 and a Cooler Receipt Form is required for

each cooler of samples. Confirmation to the shipper of acceptable shipment is required. Receiving personnel will FAX a copy of the Cooler Receipt Form to the shipper within 24 hours of receipt.

Samples will be logged in to AnaLIS and work cards printed. The work card will specify the procedure number to be used for analysis. AnaLIS provides total management of the work for the analysis including time and cost.

If duplicate samples are submitted by the customer, these will be identified to the AnaLIS data base but not to the analysis groups. Any nonconforming reported data will result in a mail message to appropriate personnel. The reported duplicate data will be plotted automatically as a percent difference.

3.1 PROGRAM MANAGER'S RESPONSIBILITIES

- Provide a project and subproject identifying numbers.
- Understanding the customer's requests and providing the service
- Provide cost and status reports
- Requesting analyses using specified procedures by number
- Be knowledgeable of the analytical procedures used
- Use well founded QA practices to identify problems before data are reported to customers.

3.2 PROJECT REQUIREMENTS

There must be an understanding of the customers requirements and the means used to obtain the required services from the laboratory. These are given in the following:

Procedure 2335 Obtaining Laboratory Services

3.3 DATA QUALITY OBJECTIVES

Data quality objectives are based upon the specific needs of the customer which may vary depending on the source of the sample. In order to provide quality data, the customer must furnish a data quality objective.

The following data quality terms are used by the laboratory:

- Precision - a measure of the reproducibility of measurements under a given set of conditions.

- Accuracy - a measure of the bias that exist in a measurement system

- Representativeness - the degree to which sample data accuracy and precision represents the medium at time of sampling.

- Completeness - a measure of the amount of data obtained from a measurement system compared to the specified data.

- Comparability - the confidence with which one measurement can be compared to another

3.4 INTERNAL CONTROL

Several of the analysis protocols specify the QC to be applied to the measurement or the customer's statement of work may specify the QC required for each analysis.

In the absence of specified QC either by regulatory agencies or the customer, the QC applied to each analysis will be per the following SOP's:

Procedure 2302 Data Monitoring and Control Chart Plotting
Procedure 2303 Analytical Quality Control Implementation
Procedure 2309 Data Validation

4.0 PROCUREMENT DOCUMENT CONTROL

There are no extra or unusual procurements associated with this project. The procurement of lab supplies and standard are covered in QAP: 04/90-0001, Section 4.

5.0 INSTRUCTIONS, PROCEDURES AND DRAWINGS

The analytical procedures to be utilized will be specified at time of login and printed on the work card for each lab section. Copies of the procedures will be maintained at the work station.

Waste characterization samples will be analyzed using procedures listed in SW-846, Third Edition, "Test Methods for Evaluating Solid Waste", and the Washington State Department of Ecology, 89-13 "Chemical Testing Methods". Any changes or deviations from the above referenced procedures requires prior approval in writing from WHC-OSM.

If parameters are requested which are not covered by procedures in the above documents, the lab will obtain prior approval from the customer of any proposed procedure.

6.0 DOCUMENT CONTROL

Analytical Procedures and SOP's used by ACD are controlled procedures. This includes those issued by national agencies including EPA, ASTM, NIOSH, Standard Methods of Analysis, Federal Register,etc.

The preparation, issue, and change to procedures and SOP's are controlled by the following procedure:

Procedure 2203 Writing, Revising, and Maintaining Standard Operating Procedures

This procedure requires the review by appropriate management and the control and issue of all procedures through the Department Office.

Some procedures issued by national agencies are general in nature and require additional specific instructions. These instructions, if required, are formally issued, signed, and attached to the original procedure. These instructions are controlled procedures. Copies will be furnished to the customer upon request.

7.0 CONTROL OF PURCHASED ITEMS AND SERVICES

These are governed by the laboratory's QAP: 04/90-0004. There are no known items or services to be procured specifically for this project.

8.0 IDENTIFICATION AND CONTROL OF ITEMS

This provides a system for assuring that correct and/or acceptable items are used within the lab at all times. Samples must also be identified and controlled thru the analytical process.

Samples which are radioactive must be identified, labeled, and controlled beginning with the login for analysis.

References: Procedure 2200 Radioactive Contamination Control Policy

WALTER D. HEDGE

PROFESSIONAL EXPERIENCE

1977 - Present

Section Head, Oak Ridge Gaseous Diffusion Plant (ORGDP). Managing the activities of the sample management section involving field sampling of gaseous diffusion cascades, groundwater wells, soils, and sediments; administration of chain-of-custody protocol, sample archives, and waste disposal for laboratories. Also charged with sampling/subsampling and sample receipt and distribution.

1956 - 1976

Manager, ORGDP

1951 - 1955

Analyst, ORGDP

EDUCATION

B.S. Engineering Chemistry, Tennessee Technological University, 1951
M.S. Industrial Management, University of Tennessee, 1960

SPECIAL SCHOOLS AND TRAINING COURSES

UT graduate courses in Statistics and Probability, and Chemical Engineering

In house - Kepner Tregoe, Managing Personal Relations, SQIP, Positive Discipline, etc.

Practical Reliability, Vacuum Technology, Chemical Engineering Practices, etc.

PERSONAL DATA SHEET

NAME Last	First	Middle
Hedge,	Walter	Delmar

Department # 1322	Badge # 3772	Co. Service Date	9/21/51
Job Title/Level Dept. Hd./Laboratory II	Division	Process Support	
Home Address Route 2, Box 146, Lenoir City, TN 37771		Phone	(615) 986-7838
Plant Address: Bldg. K-1004-C	MS 440	Phone	574-9609

ENERGY SYSTEMS/UCC-ND WORK EXPERIENCE

(List every position held in reverse chronological order)

From Mo Yr	To Mo Yr	Job Title	Description of Duties
4/78	Present	Section Head	Managing activities of the Sampling and Standards Section involving UF_6 sampling preparation of UF_6 isotopic standards. Direct activities of 1 supervisor and 8 analysts.
9/76	4/78	Supervisor	Supervised the sampling and control activities of the Sampling and Control Group. Supervised 5 analysts.
8/73	9/76	Manager	Managing activities of the Vendor Surveillance Section involving 3 Site Quality Assurance activities for CIP/CUP procurement. Directed the activities of 18 QA Engineers and 3 Clerical.
7/63	8/73	Manager	Managed quality control function for the Tech. Service Div. involving coordination of analytical procedures, directing analytical QA Program, managed pre-CIP/CUP raw material QA.
11/55	7/63	Chemist	Chemist in the Sampling and Standards Section. Responsible for development of UF_6 sampling systems, cryoscopic analyses. Laboratory criticality storage facility.
9/51	11/55	Analyst	Analyst in the Sampling and Standards Section. Sampling of Gaseous Diffusion Plant Systems and sampling of UF_6 containers.

OUTSIDE WORK EXPERIENCE

From Mo Yr	To Mo Yr	Company Name City/State	Job Title	Description of Duties
6/48	9/49	Tennessee Technological University	Assistant	Part-time assistant to Chemistry Department staff
9/48	9/50	Cookville Methodist Church	Janitor	Janitor services. Supervised 1 janitor
9/50	6/51	Tennessee Technological University	Assistant	Part-time assistant to Engineering Department staff

THIS IS A FILE OF UNCLASSIFIED REPORTS, PUBLICATIONS, AND PRESENTATIONS BY W. D. HEDGE

1960 AUGUST
THE URANIUM HEXAFLUORIDE-HYDROGEN FLUORIDE FREEZING POINT CURVE AND ITS APPLICATION TO A METHOD OF ANALYSIS, (WITH R. J. WERTZ), K-1418

1960 DECEMBER
FUNCTIONS MEDIATING THE TRANSITION OF OBSERVATION OF PERFORMANCE TO EVALUATION OF PERFORMANCE, U. T., MASTER'S THESIS.

1965 FEBRUARY
DENSITY OF LIQUID URANIUM HEXAFLUORIDE, (WITH R. J. WERTZ), K-1466.

1967 JANUARY
LABORATORY PROCEDURES, LABORATORY DIVISION, K-L-2146

1967 JANUARY
THE MOLAR FREEZING POINT DEPRESSION CURVE OF URANIUM HEXAFLUORIDE AND ITS APPLICATION TO A METHOD OF ANALYSIS, K-1667.

1967 APRIL
ANALYTICAL PROCEDURES FOR URANIUM SPECIFICATIONS, (WITH J. C. BARTON, L. A. SMITH, AND C. W. WEBER), K-L-6140.

1967 MAY
SORPTION OF WATER BY URANIUM NITRATE CRYSTALS: APPLICATION TO URANIUM ANALYSIS, K-L-6167.

1967 JULY
THE TUNGSTEN HEXAFLUORIDE-HYDORGEN FLUORIDE TRIPLE POINT CURVE AND ITS APPLICATION TO A METHOD OF ANALYSIS, K-1699.

1967 OCTOBER
DENSITY OF VOLATILE CORROSIVE LIQUIDS, METHOD AND EQUIPMENT, (ELEVENTH CONFERENCE ON ANALYTICAL CHEMISTRY IN NUCLEAR TECHNOLOGY, GATLINBURG, TENN.) K-L-6163.

1968 JANUARY
LABORATORY PROCEDURES FOR THE OAK RIDGE GASEOUS DIFFUSTION PLANT, (WITH C. W. WEBER, L. A. SMITH, AND W. T. COLLINS), K-L-6203.

1968 MARCH
THE TRIPLE POINT DEPRESSION CURVES FOR THE BINARY SYSTEMS TUNGSTEN HEXAFLUORIDE IN URANIUM HEXAFLUORIDE AND MOLYBDENUM HEXAFLUORIDE IN URANIUM HEXAFLUORIDE: THEIR APPLICATION TO METHODS OF ANALYSES, K-1697.

1968 MARCH
THE MOLYBDENUM HEXAFLUORIDE-HYDROGEN FLUORIDE TRIPLE POINT CURVE AND ITS APPLICATION TO A METHOD OF ANALYSIS, K-1698.

1968 SEPTEMBER
INPUT AND OUTPUT OF THE LABORATORY QUALITY CONTROL COMPUTER PROGRAM, K-L-3011. ALSO PRESENTED TO THE ASQC, TENNESSEE SECTION.

1969 JANUARY
DENSITIES AND MOLAR VOLUMES OF ISOTOPICALLY ALTERED LIQUID URANIUM HEXAFLUORIDE, K-L-6170. ALSO PRINTED IN THE JOURNAL OF CHEMICAL AND ENGINEERING DATA, VOL. 14, NO. 1, JANUARY 1969, PP 65-67.

1969 OCTOBER
A METHOD OF DATA TREATMENT FOR THE ANALYTICAL QUALITY CONTROL OF AN UNSTABLE SOLUTION: SODIUM HYPOPHOSPHITE IN ELECTROLESS NICKES PLATING MEDIA, K-L-2853. ALSO PRESENTED TO THE 24TH MIDWEST QUALITY CONTROL CONFERENCE, ST. LOUIS, MO. (WON HONORABLE MENTION AT THE MEETING.)

1970 DECEMBER
COSTS OF URANIUM HEXAFLUORIDE SPECIFICATION ANALYSES, K-TL-134.

1974 (SERIES BY QUARTERS)
QUALITY STATUS REPORT FOR MULTISITE PEM-PURCHASED COMPONENTS, K-TL-414 (PARTS 1 THRU 4).

PENDING REPORTS

1985 (PENDING FOR JULY)
EMPIRICAL COVER GAS CORRECTION, SAMPLE FREEZING TIME, AND AIR BUOYANCY ADJUSTMENT FOR THE ANALYSIS OF URANIUM IN URANIUM HEXAFLUORIDE, K-2051.

1985 (PENDING FOR JULY)
URANIUM HEXAFLUORIDE SUBSAMPLING SYSTEM, K/PS-1096 (WITH H. J. HALL AND D. D. REID).

1985 (PENDING FOR AUGUST)
URANIUM ISOTOPE FRACTIONATION RESULTING FROM UF6 VAPOR DISTILLATION FROM CONTAINERS, K-2055 (WITH C. M. TURNER).

1985 (PENDING FOR SEPTEMBER)
CHARACTERISTICS OF PLASTIC CONTAINERS USED FOR URANIUM HEXAFLUORIDE K/PS-XXXX.

08/73	09/76	MANAGER, VENDOR SURVEILLANCE SECTION, TECH. SERV. DIV. INITIATED VENDOR SURVILLANCE AT ORGDP. DEVELOPED ORGANIZATION, DATA BASE, PROCECURES, AND PERSONNEL. COORDINATED QUALITY ACTIVITIES AMONG THE THREE GASEOUS DIFFUSION PLANTS AND BETWEEN PLANTS AND VENDORS FOR CIP/CUP PROCUREMENT. DIRECTED THE ACTIVITIES OF 18 FIELD REPESENTATIVES AND 3 OFFICE PERSONNEL
07/63	08/73	MANAGER, QUALITY CONTROL FUNCTION, TECH. SERV. DIV. EXPANDED MEASUREMENT CONTROL PROGRAM TO ALL ROUTINE ANALYTICAL METHODS. COORDINATED ANALYTICAL PROCEDURES COMPILATION FOR PUBLIC RELEASE. OUTLINED AND MANAGED PRE-CIP BARRIER MATERIAL QUALITY ANALYSES PROGRAM. ISSUED INITIAL TECH. SERV. DIV. YEARLY ACTIVITIES REPORT. ISSUED INITIAL TECH. SER. DIV. QUARTERLY REPORT.
11/55	07/63	CHEMIST, SAMPLING AND STANDADS SECTION, TECH. SERV. DIV DEVELOPED CROSCOPIC METHOD OF UF6 PURITY. REDSIGNED UF6 SUBSAMPLING SYSTEMS CURRENTLY USED. DESIGNED UF6 LABORATORY DISPOSAL SYSTEM.DESIGNED CRITICALITY STORAGE FOR ENRICHED UF6. INSTITUTED USE OF COVER-GAS USE AND CORRECTION FOR UF6 ANALYSES. DESIGNED UF6 CONTAINERS FOR VHE MATERIALS. DESIGNED SAMPLING SYSTEM FOR ORGDP SAMPLING OF 50-LB AND 400-LB CYLINDERS.
09/51	11/55	ANALYST, SAMPLING AND STANDARDS SECTION, TECH. SERV.DIV SUBSAMPLE UF6. SAMPLED GASEOUS DIFFUSION PLANT STREAMS AT ORGDP.

9312871125 2

CAREER INTERESTS OR DESIRES

LONG TERM CAREER INTEREST IS TO MANAGE A SECTION OF CHEMISTS AND/OR ANALYSTS IN URANIUM CHEMISTRY ANALYSES AND/OR DEVELOPMENT ACTIVITIES.

PROFESSIONAL AND ACADEMIC HONORS

1970 HONABLE MENTION, SHEWELL AWARD, FOR BEST PRESENTATION, ASQC

1950 WHOS WHO IN AMERICAN UNIVERSITIES AND COLLEGES

PROFESSIONAL SOCIETIES

MEMBER

AMERICAN SOCIETY FOR QUALITY CONTROL

SPECIAL LABORATORY / DOE / UCC ASSIGNMENTS

06/81	12/82	CASCADE COMPLEX INVENTORY DIFFERENCE (ID) STUDY COMMITTEE, DOE

All sample receive a unique ID number at time of login which furnishes a means of identifying and tracking the sample through the laboratory.

9.0 CONTROL OF PROCESS

The receipt and analysis of samples for this project will be carried out in in a planned, systematic, and controlled manner producing results that are valid and based on sound technology.

The following SOP's will control the receipt, login, and the disposal of samples for this project.

Procedure 2335,	Obtaining Analytical Services
Procedure 2332, R-1,	Cooler Receipt and Sample Tracking.
Procedure 2053	Custodian Sampling Handling and Receiving
Procedure 2053B	Radiological Surveying of Received Samples
Procedure 2055	Chain of Custody (Customer to receiving station)
Procedure 2331	Internal Chain of Custody and Priority of Analysis
Procedure 2051	Archiving Designated Samples
Procedure 2054A	Disposal of Non-uranium Solid Waste and Samples
Procedure 2354B	Disposal of non-uranium Liquid Waste and Samples

10.0 INSPECTION

Deficiences may be detected during the normal performance of analysis of samples and the associated QC. Audits also provide a means of detecting deficiences or problems. Deficiencies are brought to the attention of the QC Manager for resolution. Problems due to deficiences in procedures or SOP's are handled per the control procedure requirements. Deficiences in the Statement of Work will be brought to the PM for resolution with the customer.

11.0 TEST CONTROL

The analyses shall be controlled per the regulatory QC protocol if specified in the regulation or procedure.

In the absence of regulatory QC protocol the analyses shall be controlled through the use of bench controls, replicate measurements, spikes where applicable, duplicate samples submitted by the customer, and other checks as given in the below referenced documents.

Reference: Procedure 2303 Analytical Quality Control Implementation
Procedure 2309 Data Validation

12.0 CONTROL OF MEASURING AND TEST EQUIPMENT

The control of measurement and test equipment within this program consists of the calibration of the equipment with known standards prior to the use for measurement of samples. The use of known standards for the calibration and the use of bench standards provide the necessary controls to ensue that the instruments are acceptable prior to use for sample analyses.

Procedure 2308 Calibration of Laboratory Equipment

13.0 HANDLING, STORAGE, AND SHIPPING

The receipt, handling, storage, and tranfer of samples must meet the criteria of both the physical security and preservation of the samples. SOP's covering these operations are listed in Section 9.0

The physical security requires that access to the lab areas be limited to employees of the facility. The lab areas are locked during off shifts and samples may be placed in an alarmed vault if required by the customer. The vault has sample storage refrigerators for samples requiring refrigeration.

14.0 INSPECTION, TEST, AND OPERATING STATUS

Analytical balances are the only item requiring certification by an external group. These are certified by the Scale and Balance Shop and have a certification sticker attached. The balances are checked each day they are used for sample analysis.

Procedure 2308 Calibration of Laboratory Equipment

The maintainance and service of major instrumentation is by service contracts with the manufacturer or approved service representatives.

15.0 CONTROL OF NONCONFORMING ITEMS

There are two categories of nonconformances associated with this program:

(1) Shipper-receiver differences on the identification of coolers and the contents of the coolers. This also includes the actual analyses requested on the chain of custody versus the planned analysis. These differences are documented by electronic mail to the program manager for resolution with the shipper.

(2) QC criteria not met for a batch of samples. This may be due to the equipment failure, analytical errors, matrix effects, standardization errors, etc. All QC must be met or the reason for the failure determined and documented prior to the release of any analytical data.

16.0 CORRECTIVE ACTIONS

Data from internal controls are used to evaluate the measurement process and any non-conformances are handled in accordance with:

Procedure 2314 Documentation of Out-of-Control Incidents

17.0 QUALITY ASSURANCE RECORDS

The customer must state how sample data are to be reported. The customer may select one or more reporting methods: Mathods avalilable are:

(1) Electonic transfer of the Sample Report Form
(2) Data Package per SW-846 or WDOE 89-13
(3) Hard copy data of Sample data reports
(4) Electonic transfer by data fields

If the statement of work does not specify data quality objectives data will be validated per SOP 2309 'Data Validation".

The samples will be batched for analysis. The QC data and raw data from each batch run will be placed in an identified batch folder and retained as a permanent record. The raw data including the calculations will receive a level 3 validation prior to preparation of the report document. Each sample reported has a QA File number listed on the report form. This QA file number provides the traceability record to all the raw data and QC activities associated with the measurement.

The customer may have access via computer network to all completed and approved

sample results prior to the transfer of data either electronically or by hard copy. The customer may request re-analysis or data rechecks of any approved sample results.

Rechecks of the reported data shall be completed and forwarded to the customer within seven working days of the request. Reanalysis shall be completed and forwarded to the customer with 35 days of the reanalysis request.

The computer file will be backed up each day and the tape protected per DOE and the K-25 Plant requirements of computer data storage.

The hard copy records of the final data package will be stored in a Class B file container meeting the requiement of NFPA 232-1975.

18.0 AUDITS

The customer is authorized to perform program audits of those areas and operations which are related directly or indirectly to the analysis of samples and the reporting of data from this project.

Routine audits of the laboratory operation are per the QA Document QAP: 04/90-A001. In addition there may be audits for this specific work project to ensure that the customer needs are being met and that the specified protocol is being followed. Audits may be conducted to determine the root cause of specific problems that may be encountered.

Audit findings and required corrections, either by the customer or in-house personnel, must be forwarded to the QC and Methodology Manager. A response must be prepared within 30 days listing the actions to be taken and the estimated completion date. These records will become part of the project record files.

****