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7. Abstract

The Quality Assurance Program Plan to be used to assess the performance and functions of the 200 Area Liquid Effluent Facilities Operations.

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200 AREA LIQUID EFFLUENT FACILITIES
QUALITY ASSURANCE PROGRAM PLAN

MASTER

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1.0 PURPOSE

This Quality Assurance Program Plan (QAPP) describes the quality assurance and management controls used by the 200 Area Liquid Effluent Facilities (LEF) to perform its activities in accordance with DOE Order 5700.6C.

The 200 Area LEF consist of the following facilities:

- Effluent Treatment Facility (ETF)
- Treated Effluent Disposal Facility (TEDF)
- Liquid Effluent Retention facility (LERF)
- Truck Loadin Facility - (Project W291).

This QAPP is specific to the LEF providing guidance for the implementation of requirements set forth in WHC-CM-4-2 "Quality Assurance Manual," and is applicable to all LEF personnel. The guidance of QAMS 005/80 (EPA 1982) is met with WHC-LEF-QAPP-002, "200 Area Treated Effluent Facility Quality Assurance Project Plan." The intent is to ensure that all activities such as collection of effluents, treatment, concentration of secondary wastes, verification, sampling and disposal of treated effluents and solids related with the LEF operations, conform to established requirements.

2.0 SCOPE

The requirements of this QAPP will be applied to the LEF in a graded approach commensurate with the safety class, relative risk to safety, safeguards, security and the environment.

The LEF is classified as a "Radiologically Controlled Facility" in accordance with Environmental Management (EM) guidance standard DOE-EM-STD-5502-94. The commitments are limited to ensuring LEF-specific programs are in place to implement the controls and safety requirements, ensure that the safety basis and hazard category remain valid, via an inventory control program and DOE order 5480.1B for environmental protection requirements.

3.0 GENERAL REQUIREMENTS

3.1 ORGANIZATION

The LEF are operated by WHC under contract from the U.S. Department of Energy (DOE). The organizational structure, functional responsibilities and lines of communication of the LEF and other WHC departments are described in WHC-CM-4-2, QR 1.0. LEF Management is responsible for the QA Program Plan implementation, assessment and improvement in accordance with WHC-CM-1-3. All LEF management and staff (TABLE 1) are responsible for ensuring that personnel understand and implement the QAPP. All individuals are responsible for maintaining a Quality Climate and a working knowledge of this plan. They are responsible for implementing its elements applicable to their defined work scope and for the quality of their own work.

The organizational responsibilities and guidelines for the LEF are defined in WHC-IP-0932, "200 Area Liquid Effluent Facilities Conduct of Operations," Sec.1, "Organization and Administration," and listed in the Quality Assurance Program Index (QAPI), Appendix A.

a. Process Engineering

The Process Engineering Organization provides engineering support for LEF systems and components for safe operation of the facilities. They maintain configuration control in accordance with WHC-SD-ETF-CM-001, "Configuration Management Plan for Project C-018H, 200-E Area Effluent Treatment Facility" and ensure integrity of engineering documentation.

- Perform System Assessments to ensure initial operational readiness and readiness for subsequent restarts of the LEF. In addition, provide on call engineering coverage to assist in operations of the LEF.
- Generate and maintain operational procedures, procedure changes & revisions and ensure technical adequacy of operational, maintenance and calibration requirements and procedures.

- Provide technical assistance for work package generation, resolution of corrective maintenance for repairs/changes to systems/components.
- Assist in timely investigations and reporting of "off-normal" plant events and unusual occurrences.

b. Operations

The Operations organization ensures that plant operations are conducted safely and within the bounds of DOE 5480.19 "Conduct of Operations" approved procedures. In addition Operations must maintain the broadest perspective of operational conditions affecting the safety of personnel and the plant as the highest priority. WHC-IP-0932, "200 Area Liquid Effluent Facilities Conduct of Operations," Sec.2, "Shift Routines and Operating Practices" provides standards of professional conduct and operational routines for the LEF personnel.

- Maintain qualified Nuclear Process Operators, Shift Engineers and Shift Managers for safe and efficient operation of the facility at all times as defined in WHC-IP-932 Sec.1, "Organization and Administration".
- Review proposed changes to ensure compliance to operations requirements.
- Establish priorities for all maintenance/operations tasks.
- Assume responsibility for emergency response in the absence of higher management.

c. Operations Analysis & Support (OA&S)

The OA&S organization ensures compliance with company mandated policies, programs and regulations including DOE directives, personnel safety, and safety of general public.

- Implement and perform self assessments to enhance Conduct of Operations and facility compliance.
- Control procedure generation and changes. Generate occurrence reports and root cause analysis. Emergency procedures, staffing, training and preparedness.

d. Training

The LEF Training organization

- Plans, administers and maintains training manuals and materials and a training program to ensure Operator, Supervisor, Maintenance, Technical and Administrative staff training requirements are complied with and records are current.
- Generates emergency preparedness procedures, implements drill & monitoring programs and provides self assessment for preparedness programs.

e. Work Control

The Work Control organization supports LEF mission objectives and ensure schedules meet established priorities for corrective action management activities, plant operations, system assessments, configuration control, plant maintenance, work packages and perform as LEF point of contact for site wide job control issues.

- Manage and control work process, ensure work packages meet quality and safety standards. Implement and maintain the Job Control System for the LEF.

f. Maintenance

The Maintenance organization ensures all maintenance activities are performed on time and safely in accordance with established directives.

- Perform maintenance activities for the operating plant systems and components.
- Maintain a qualified staff with required training related to facility maintenance that encourages employee commitment.

g. Environmental Engineering/Regulatory Compliance

The Environmental Engineering/Regulatory Compliance organization manages, implements and ensures compliance with WHC-CM-7-5, "Environmental Compliance" as well as all applicable laws, regulations, and relevant DOE orders as they apply to the facilities.

- Setup and maintain a regulatory file and establish programs and guidance to meet the requirements as they apply to the operation of the facility. This includes facility specific requirements found in environmental permits and the Tri-Party Agreement.
- Report, prioritize, trend, analyze and correct environmental compliance issues in accordance with WHC-CM-1-3 and MRP 5.1. Integrate results of trend data review, root cause analysis and lessons learned evaluations into environmental planning and project development. Review designs and design changes for compliance with environmental requirements in accordance with WHC-CM-7-5, Sec. 13.5.
- Ensure all training, reporting and documentation is in compliance with applicable requirements. Technical point of contact for response to hazardous material spills.
- Perform and document periodic self-assessments of facility operations to ensure that the environmental requirements found in WHC-CM-7-5 are being met and corrective actions are being recommended and implemented as needed.

- Assist facility manager for interface with RL and regulatory agencies. Serve as facility point of contact for environmental issues.

The Environmental Engineering/Regulatory compliance directives and requirements are implemented by the use of controlled procedures as listed in WHC-SD-LEF-QAPP-002, "200 Areas Treated Effluent Facility Quality Assurance Project Plan" (QAPJP).

h. Health Physics

Provide health physics support and services to the LEF facilities to ensure a radiologically safe and healthy workplace.

- Health physics will implement a radiological surveillance program designed to support operations, maintenance, effluent monitoring and laboratory activities.
- Provide oversight and management of the radiological protection program in the facility.

3.2 QUALITY ASSURANCE PROGRAM

The Quality Assurance Program Plan (QAPP) conforms to the requirements of WHC-CM-4-2, Sec. QR 2.0, "Quality Assurance Program". Planning and implementation of this QAPP are carried out according to WHC-IP-0931 "200 Area Liquid Effluent Facilities Administrative Policies" and WHC-IP-0932, "200 Area Liquid Effluent Facilities Conduct of Operations". QA program controls are applied to the LEF activities in accordance with WHC-CM-1-3, MRP 5.46 "Safety Classification of System, Components and Structures."

The extent to which QA controls applies to specific activities according to the requirements of WHC-CM-4-2, QI 2.2, "Quality Assurance Program Planning", are summarized in the QAPI, Appendix A.

The LEF Environmental Engineering/Compliance Group activities conforms to the requirements of EPA quality requirement guidelines identified in EPA QAMS-005/80 (EPA 1983). Process sampling and analysis activities and validation criteria for the Environmental Engineering/Compliance Group are defined in the WHC-CM-LEF-QAPP-002, "200 Area Treated Effluent Facility Quality Assurance Project Plan."

The responsible group considers the importance of the task, operational safety, radiological safety, complexity of task, and consequences of failure to select the appropriate procedure to be applied for a given task. WHC-CM-0932 Sec.8.2 establishes the requirements for effective management of the work control system and "Appendix L" defines the examination requirements. WHC-IP-0932 Sec.16, discusses operating procedures preparation and special procedure processing.

The LEF complies with the training requirements of WHC-CM-1-1. This is documented in WHC-IP-0931 Section 4, "Training Administration". The LEF Facility Manager has overall responsibility for personnel training. Line managers ensure implementation and aid in proper training of their personnel.

The Environmental Engineering/Regulatory Compliance Manager will ensure the specific training for his organization, reporting, and documentation are in compliance with the applicable requirements.

The LEF will have an assigned Plant Review Committee to evaluate and provide direction in the resolution of adverse conditions (See section 3.16 for details). The purpose of the Corrective Action Board is to improve the LEF facility programs to better focus on the problem areas and avoid recurrences.

To ensure that this QAPP is implemented correctly, the LEF facility manager shall require an annual Management Assessment. This assessment shall assess the adequacy, appropriateness and implementation of the program and require written recommendations to the manager. The manager shall then take prudent steps in addressing problem areas.

Quarterly review of operating performance goals is provided to the Facility Manager by department in accordance with WHC-IP-0932 Sec.1. The Facility Manager also requires annual assessment to ensure the adequacy, appropriateness and implementation of the QAPP with written recommendations to enable implementing prudent steps in addressing problem areas.

3.3 DESIGN CONTROL

LEF Requirements and responsibilities for Engineering design activities are accomplished in accordance with CM-6-1, *Standard Engineering Practices*. Specific procedures controlling designs are EP-1.3, "Engineering Drawing Requirements," EP-2.2, "Engineering Document Change Control;" and EP-4.1, "Design Verification Requirements."

Requirements for the independent verification of design drawings, specifications and instructions and revisions thereto, for adequacy and correctness by a person other than the originator of the design, are described in WHC-CM-6-1, EP-4.1, "Design Verification Requirements". The qualification testing method of design verification is also used as defined in EP-4.1.

Design Changes shall be initiated, approved and controlled by Engineering Change Notices (ECN) in accordance with WHC-CM-6-1, EP-2.2, "Engineering Document Change Control". Changes to the supplier design documents shall be transmitted via ECN to WHC review system for approval.

3.4 PROCUREMENT DOCUMENT CONTROL

Requirements for the contents of procurement documents, procurement planning, supplier selection, bid evaluation, supplier performance evaluation, control of supplier generated documents or services, control of changes in items or services, and acceptance of items or services are contained in WHC-CM-2-1, "Procurement Manual and Procedures", and WHC-CM-2-2, "Materials Management Manual".

The acquisition of quality affecting items that are procured are controlled by issuing purchase orders in accordance with WHC-CM-2-1, WHC-CM-2-2, and WHC-CM-6-1, EP-2.3 "Engineering Procurement Waivers", and EP-3.3, "Vendor Information". Quality requirements for procurement specific to LEF are identified by the cognizant engineer who ensures that the quality requirements are addressed through existing procurement procedures.

The requirements of WHC-CM-3-5 Sec.17.7, "Approval of Environmental, Safety and Quality Affecting Documents," are applied to procurement documentation involving activities affecting quality.

3.5 INSTRUCTIONS, PROCEDURES AND DRAWINGS

Engineering tasks that result in documented designs, process flow sheets, operating guidance, or deliverable items are performed in accordance with WHC-CM-6-1, "Standard Engineering Practices," EP-1.1, "Engineering Document Identification", EP-1.3, "Engineering Drawing Requirements", and EP-4.1 "Design Verification Requirements".

The LEF are operated in accordance with WHC-IP-0931 and WHC-IP-0932 which direct the user to those documents, procedures, manuals, or publications which are necessary for the safe operation of the facilities.

Specific procedures are developed for the Operations, Maintenance and for Environmental Engineering and Regulatory Compliance groups. A listing of these procedures is maintained by Operations Analysis & Support (OA&S) in the operations procedure history files.

Documents and operating procedures are controlled in accordance with WHC-IP-0931 and WHC-IP-0932, "200 Area Liquid Effluent Facilities Administration" and "Conduct of Operations". Revisions to these procedures shall also conform to the requirements of WHC-IP-0932.

LEF incorporates the use of all of the above document control activities.

3.6 DOCUMENT CONTROL

LEF complies with the requirements of WHC-CM-4-2, QR-6.0, "Document Control". The procedures and requirements for preparing engineering documents are defined in WHC-CM-6-1, EP-1.1 "Engineering Document Identification;" EP-1.2, "Engineering Specifications;" and EP-1.3 "Engineering Drawing Requirements."

Engineering documents are controlled by WHC-CM-6-1. Engineering documents are initially released by an engineering data transmittal (EDT) according to EP-1.6, "Engineering Data Transmittal", revised by an engineering change notice (ECN) per EP-2.2, "Engineering Document Change Control Requirements", and in compliance with requirements provided in EP-1.7, "Engineering Document Approval and Release."

The procedures, requirements, and responsibilities associated with the initiation, review, approval, release, and incorporation of changes to engineering documents, and the controls administered by Configuration Documentation are defined in WHC-CM-6-1, EP-1.6, "Engineering Data Transmittal", and EP-2.2, "Engineering Document Change Control Requirements".

WHC-IP-0931, Sec.7, "Plant Review Committee", WHC-IP-0932, Sec.8.2 "Work Control", Sec.16.1, 16.2, and 16.3 "Procedure Processing", implements the controls for preparation and control of procedures, manuals and other documents and changes thereto.

All documents including revisions, are reviewed for adequacy and approved in accordance with WHC-CM-3-5 . Quality affecting documents are reviewed and approved in accordance with WHC-CM-3-5, Sec. 12.7, "Approval of Environmental, Safety and Quality Affecting Documents".

3.7 CONTROL OF PURCHASED ITEMS OR SERVICES

The procurement of purchased items and services associated with the LEF are controlled in accordance with WHC-CM-4-2, QR 7.0 "Control of Purchased Material, Equipment, and Services". QA provides independent inspection for all procured items affecting quality in accordance with WHC-CM-4-2, QR 7.0, "Control of Purchased Items and Services".

WHC-IP-0931, Sec.5, "200 Area Liquid Effluent Facilities Administration", defines the responsibilities and describes the administrative requirements for handling, storing, controlling the inventory of materials procured for LEF.

3.8 IDENTIFICATION AND CONTROL OF ITEMS

The requirements and procedures for identification, receipt, acceptance, tracking, distribution, revision and filing of documents provided by vendors are defined in WHC-CM-6-1, EP-3.3 "Vendor Information".

The engineering requirements for configuration control that apply to the authorization and control of modifications to the LEF systems, equipment and components, as well as requirements to ensure that modifications are properly designed, reviewed, approved, installed, tested and documented are defined in WHC-CM-1-3, MRP-5.46, "Safety Classification of Systems, Components and Structures", and WHC-CM-6-1, EP-2.2 "Engineering Document Change Control".

WHC-IP-0932 "200 Area Liquid Effluent Facilities Conduct of Operations" manual, Section 8.2, "Work Control", Section 18, "Equipment and Piping Labeling", and WHC-IP-0931 Section 5, "Material Control", define the requirements for identification and control of items.

3.9 CONTROL OF PROCESS

The use of special processes that control or verify shall be controlled in accordance with WHC-CM-4-2, QR 9.0, "Control of Processes". The WHC controls for nondestructive examination are defined in WHC-CM-4-38, NDE procedures. Quality Assurance overview of NDE activities are described in WHC-CM-4-2, QI-9.1 "Control of Nondestructive Examination". Requirements for welding and brazing are implemented in accordance with WHC-CM-4-2, QI 9.2, "Control of Welding and Brazing", and technical procedures defined in WHC-CM-6-10, Welding Manual and WHC-SD-MA-SPP-001, Welding Procedures Supporting Document.

3.10 INSPECTION

QA/QC performs inspections required to assure that a product or an activity meets the specifications or requirements in accordance with WHC-CM-4-2, QR 10.0, "Inspection and Surveillance". These quality requirements apply to inspections and/or surveillance required to verify conformance of an item or activity with specified requirements.

LEF includes inspection points and inspection criteria in work control packages, procurement documents, shipping/receiving documents, equipment installation instructions, test plans, procedures, operating documents, maintenance procedures, internal fabrication packages, sampling procedures and other documents controlling quality affecting work. Such documents include inspection characteristics, methods, acceptance criteria, and appropriate inspection records. Nonconformance will be controlled as indicated in Section 3.15 of the QAPP.

Personnel performing inspections or verification of work activities are qualified and/or certified per WHC-CM-4-2, QR 2.0, "Quality Assurance Program". Inspection personnel are trained for the specific work procedures to the extent of having a basic understanding of the work accomplished by the procedure and having a detailed knowledge of the required inspection and documentation.

When in-process inspection is more appropriate than final inspection or testing for assuring product quality, the work shall be done using approved procedures and qualified personnel in accordance with the requirements in WHC-CM-4-2, QR 9.0, "Control of Processes", and QR 10.0, "Inspection and Surveillance".

WHC-IP-0932 Sec.1, "Organization and Administration", Sec.6, "Abnormal Event Investigation", Sec.7, "Notification", Sec.8.2, "Work Control", Sec.10, "Independent Verification", and WHC-IP-0931 Sec.8, "Preventive Maintenance and Surveillance", describes the LEF organization and provide instructions for inspection, evaluation, surveillance and reporting.

3.11 TEST CONTROL

Testing shall be controlled in accordance with the requirements of WHC-CM-4-2, QR 11.0, "Test Control". The requirements for the content and implementation of a test plan or test specification that addresses test controls and references controlling procedures, are defined in WHC-CM-6-1, EP-4.2, "Testing Practices". The requirements for characteristics to be tested, test method(s), documentation of test results, conformance to acceptance criteria, and the development testing to establish design inputs, are also defined in EP-4.2. The specific testing methods are based on Safety Class/Impact Level, detailed in WHC-CM-1-3, and MRP 5.46 "Safety Classification of Systems, Components and Structures".

Wherever possible, test procedures shall reference, but not excerpt into the text, accepted national or industrial test standards and methods (e.g., ASTM, ACI, etc.). Records resulting from the use of such test procedures are to be considered quality records, in accordance with Section 3.17 of the QAPP. Managers ensure that personnel have appropriate training in the use of such test procedures.

Requirements for the performance of functional, operability, and acceptance testing to ensure that equipment maintenance work is performed satisfactorily, are controlled WHC-IP-0932, Sec 16.2, "Operations Procedure Processing", and WHC-IP-0931, Sec.8, "Preventative Maintenance and Surveillance". In addition work completion and retest requirements are also defined and controlled by the WHC-IP-0932, Sec.8.2, "Work Control".

3.12 CONTROL OF MEASURING AND TEST EQUIPMENT

Tools, gages, instruments, and other Measuring and Test Equipment (M&TE) used for activities affecting quality, shall be controlled in accordance with WHC-CM-4-2, QR 12.0, "Control of Instruments". All instruments used for accepting material or equipment, controlling special processes or obtaining data, shall be calibrated and be traceable to nationally recognized standards.

WHC-CM-8-7, Operations Support Services, Sec.802, establishes the administrative requirements for the Component Based Recall System (CBRS), which implements the requirements of WHC-CM-4-2, QR 12.0.

3.13 HANDLING, STORAGE AND SHIPPING

Requirements for packaging, handling, shipping and storage of items which are purchased, fabricated, shipped or stored, are contained in WHC-CM-4-2 QR-13, "Handling Storage and Shipping".

Administrative requirements and responsibilities for LEF handling, packaging, storage and shipping of drums, mixed waste and hazardous waste are outlined in WHC-IP-931 "200 Area Liquid Effluent Facilities Conduct of Operations". Section 16.1, 16.2, 16.3 specify the standards operating procedures are written to. Various plant operating procedures address inspections, packaging and shipping requirements for solid effluents. When special handling equipment is involved, it shall be specified and inspected in accordance with approved applicable operations/maintenance procedures.

3.14 INSPECTION, TEST AND OPERATING STATUS

The inspection, test and operating status of the LEF as required in WHC-CM-4-2, QR 14.0, "Inspection, Test, and Operating Status," and associated implementing procedures, is controlled by the requirements outlined in WHC-IP-932, "200 Area Liquid Effluent Facilities Conduct of Operations", Sect 7, "Notifications", Sec.8.1, "Control of Equipment & System Status", Sec.8.2, "Work Control", Sec.8.3, "Jumper and Lifted Lead Control", Sec.9, "Lockout and Tagout", and Sec.10, "Independent Verification".

3.15 CONTROL OF NONCONFORMING ITEMS

Nonconformance reporting, control and disposition shall be in accordance with WHC-CM-4-2, QR 15.0, "Control of Nonconforming Items", and shall be processed in accordance with WHC-CM-1-4, "Corrective Action Management".

LEF nonconforming items and materials are controlled by the requirements of WHC-IP-931, "200 Area Liquid Effluent Facilities Administration". Sec. 5, "Material Control". WHC-IP-932, "200 Area Liquid Effluent Facilities Conduct of Operations", Sect 7, "Notifications", Sec.8.1, "Control of Equipment & System Status", Sec.8.2, "Work Control".

3.16 CORRECTIVE ACTION

Corrective actions are in accordance with WHC-CM-4-2, QR 16, "Corrective Action" and WHC-CM-1-3, MRP 5.14, "Occurrence Reporting and Processing of Operations Information", commensurate with the seriousness of the condition being corrected.

Events or conditions requiring corrective actions are defined in WHC-CM-1-4. These events or conditions are reported to facility manager and affected organizations in accordance with WHC-CM-1-4.

LEF Corrective actions are controlled by the requirements of WHC-IP-931, "200 Area Liquid Effluent Facilities Administration". Sec. 7, "Plant Review Committee". WHC-IP-932, "200 Area Liquid Effluent Facilities Conduct of Operations", Sec. 6, "Investigation of Abnormal Events", Sec.8.2, "Work Control", and the Operating procedures. LEF relies on JCS housekeeping and QA Management Oversight to perform audits and surveillances. The Corrective Action Management system is used to document findings.

The LEF Plant Review Committee (PRC) will meet on a regular basis to discuss the status of recent submittals to ensure that the root cause is correctly identified, to determine the status of corrective actions, and to ensure that corrective actions include the means to prevent recurrence.

3.17 RECORDS

Records management requirements and responsibilities for the LEF are maintained in accordance with WHC-CM-3-5, "Document Control and Record Management Manual". These include program objectives, contract requirements, and restrictions affecting the maintenance and disposal of record and nonrecord information. Correction to quality records is performed in accordance with WHC-CM-3-5 Section 9, Para 5.4 "QA Records."

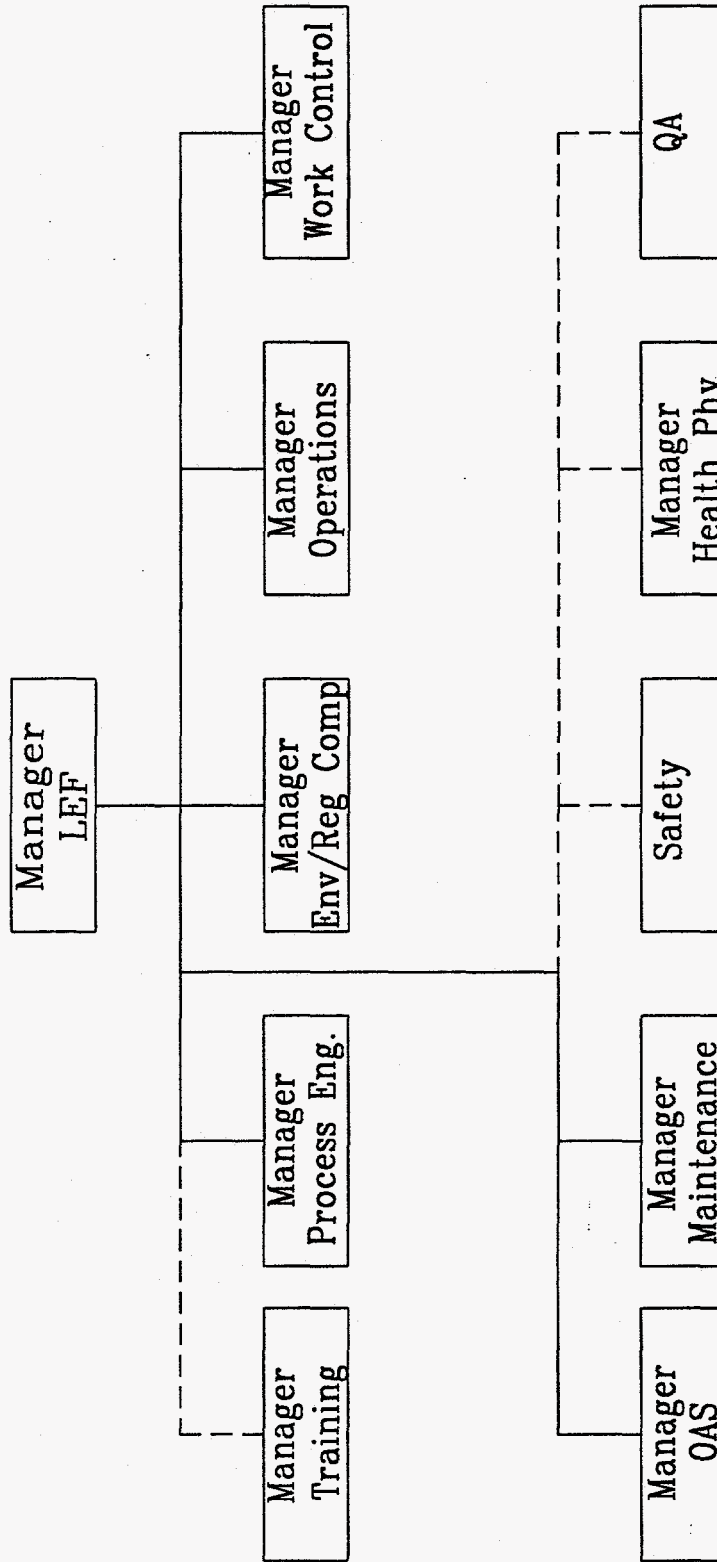
3.18 AUDITS/SURVEILLANCE

The LEF facilities manager will each year assign a team to perform a management assessment (internal self-assessment) on the effectiveness, adequacy and implementation of the QAPP. Deficiencies discovered will be documented and corrective action taken in accordance with WHC-CM-1-4 "Corrective Action Management Manual". This assessment will address and investigate surveillance and audit programs, schedule corrective actions including measures to prevent recurrence, and ensure that actions required by other organizations are accepted.

3.19 SOFTWARE

Computer software development, revision, and application requirements are contained in WHC-CM-3-10. This applies to computer software, including commercial computer software, and will be used to document software for the LEF applications.

TABLE 1 - ORGANIZATION CHART



**APPENDIX A
LEF - QUALITY ASSURANCE PROGRAM INDEX**

WHC-CM-4-2	WHC-CM-1-3	WHC-CM-6-1	OTHER PROCEDURES	LEF - IP
QR 1.0 Organization				WHC-IP-0932 Sec.1 & 2
QR 2.0 QUALITY ASSURANCE PROGRAM			WHC-CM-4-2	WHC-IP-0931 Sec.4 WHC-IP-0932 Sec.1,8.2, & 16
QR 3.0 DESIGN CONTROL		EP-1.3 EP-2.2 EP-4.1		
QR 4.0 PROCUREMENT DOCUMENT CONTROL		EP-2.3 EP-3.3	WHC-CM-2-1 WHC-CM-2-2 WHC-CM-3-5, Sec.12.7	
QR 5.0 INSTRUCTIONS PROCEDURES AND DRAWINGS		EP-1.1 EP-1.3 EP-4.1		WHC-IP-931 WHC-IP-932
QR 6.0 DOCUMENT CONTROL		EP-1.1 EP-1.2 EP-1.3 EP-1.6 EP-1.7 EP-1.12 EP-2.2	WHC-CM-3-6 WHC-CM-3-5, Sec.12,7	WHC-IP-931 Sec.3, 7. WHC-IP-0932 Sec.8.2, 16.1, 16.2, 16.3
QR 7.0 CONTROL OF PURCHASED ITEMS AND SERVICES		EP-2.3		WHC-IP-0931 Sec.5
QR 8.0 IDENTIFICATION AND CONTROL OF ITEMS	Section 5.46	EP-3.3 EP-2.2	WHC-CM-3-5,12.7	WHC-IP-932 Sec.8.2, 18 WHC-IP-931 Sec.5
QR 9.0 CONTROL OF PROCESSES		EP-1.6 EP-1.7 EP-2.2 EP-4.1 EP-4.2	WHC-CM-6-10 WHC-CM-4-38	WHC-IP-0932 WHC-IP-0931
QR 10.0 INSPECTION AND SURVEILLANCE				WHC-IP-0931 Sec.8 WHC-IP-0932 Sec.1,6,7,8.2 & 10.
QR 11.0 TEST CONTROL	MRP. 5.46	EP-4.2		WHC-IP-0932 Sec.8 WHC-IP-0931 Sec.8,2, 16.2

WHC-CM-4-2	WHC-CM-1-3	WHC-CM-6-1	OTHER PROCEDURES	LEF - IP
QR 12.0 CONTROL OF INSTRUMENTS			WHC-CM-8-7 Sec.802	WHC-IP-0931 Sec.8
QR 13.0 HANDLING, STORAGE AND SHIPPING				WHC-IP-931 Sec.16.1,16.2, 16.3
QR 14.0 INSPECTION, TEST AND OPERATING STATUS				WHC-IP-931 Sec.16.1,16.2, 16.3 WHC-IP-932 Sec.7,8.1,8.2, 8.3,9 & 10
QR 15.0 CONTROL OF NONCONFORMING ITEMS	Section 5.2		WHC-CM-1-4	WHC-IP-931 Sec.5 WHC-IP-932 Sec.6, 8.2
QR 16.0 CORRECTIVE ACTION	Section 5.14		WHC-CM-1-4	WHC-IP-0931 Sec.7 WHC-IP-0932 Sec.6, 8.2
QR 17.0 QUALITY ASSURANCE RECORDS		EP-1.1 EP-1.2 EP-1.3 EP-1.6 EP-1.7 EP-1.12 EP-2.2	WHC-CM-3-5 Sec.5.4 WHC-CM-3-6	
QR 18.0 AUDITS			WHC-CM-1-4	
QR 19.0 SOFTWARE QUALITY ASSURANCE REQUIREMENTS			WHC-CM-3-10	