

SEP 21 1998  
Sta. 37

ENGINEERING DATA TRANSMITTAL

1. EDT <sup>Page 1 of 56</sup> 621756

2. To: (Receiving Organization) Fuel Supply Shutdown		3. From: (Originating Organization) Fuel Supply Shutdown		4. Related EDT No.: N/A	
5. Proj./Prog./Dept./Div.: FSS Project/BWHC 300 Area Stabilization Project		6. Design Authority/ Design Agent/Cog. Engr.: I.L. Metcalf		7. Purchase Order No.: N/A	
8. Originator Remarks: FSS Project QAPP				9. Equip./Component No.: N/A	
				10. System/Bldg./Facility: 333 Building/FSS	
11. Receiver Remarks:		11A. Design Baseline Document? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		12. Major Assm. Dwg. No.:	
				13. Permit/Permit Application No.:	
				14. Required Response Date:	

15. DATA TRANSMITTED					(F)	(G)	(H)	(I)
(A) Item No.	(B) Document/Drawing No.	(C) Sheet No.	(D) Rev. No.	(E) Title or Description of Data Transmitted	Approval Designator	Reason for Transmittal	Originator Disposition	Receiver Disposition
1	HNF 2330	ALL	0	Quality Assurance Program Plan Fuel Supply Shutdown Project	Q	1/2	1	1

16. KEY

Approval Designator (F)	Reason for Transmittal (G)	Disposition (H) & (I)
E, S, Q, D or N/A (see WHC-CM-3-5, Sec.12.7)	1. Approval 2. Release 3. Information 4. Review 5. Post-Review 6. Dist. (Receipt Acknow. Required)	1. Approved 2. Approved w/comment 3. Disapproved w/comment 4. Reviewed no/comment 5. Reviewed w/comment 6. Receipt acknowledged

17. SIGNATURE/DISTRIBUTION  
(See Approval Designator for required signatures)

(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN	(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN
1	1	Design Authority	<i>I.L. Metcalf</i>	9/15/98	L6-26			Quality Assurance and Project approval provided in HNF 2330.			
		Design Agent									
		Cog. Eng.									
		Cog. Mgr.									
1	1	QA			See Page iii, HNF-2330.						
		Safety				3		Central Files			B1-07
		Env.									

<p>18. <i>I.L. Metcalf</i> IL Metcalf Signature of EDT Originator Date: 9/15/98</p>	<p>19. <i>I.L. Metcalf</i> IL Metcalf Authorized Representative for Receiving Organization Date: 9/15/98</p>	<p>20. <i>I.L. Metcalf</i> IL Metcalf Design Authority/Cognizant Manager Date: 9/15/98</p>	<p>21. DOE APPROVAL (if required) Ctrl. No. <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/comments <input type="checkbox"/> Disapproved w/comments</p>
---	--	--	--

# QUALITY ASSURANCE PROGRAM PLAN FUEL SUPPLY SHUTDOWN PROJECT

I. L. Metcalf  
B&W Hanford Company  
P.O. Box 1200  
Richland, WA 99352  
U.S. Department of Energy Contract DE-AC06-96RL13200

EDT/ECN: 621756 UC: 2050  
Org Code: 19120 Charge Code: K31C2  
B&R Code: DP0405501 Total Pages: 23

**Key Words:** Fuel Supply Shutdown Project, QAPP, N-Fuels

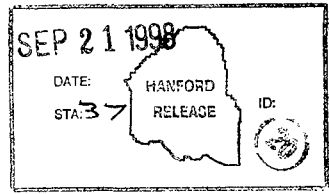
**Abstract:** This QAPP implements the Quality Assurance Plan for the Fuel Supply Shutdown Project.

---

TRADEMARK DISCLAIMER. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof or its contractors or subcontractors.

Printed in the United States of America. To obtain copies of this document, contact: Document Control Services, P.O. Box 950, Mailstop H6-08, Richland WA 99352, Phone (509) 372-2420; Fax (509) 376-4989.

*V. L. Bukland* 9/21/98  
Release Approval Date



Release Stamp

**Approved For Public Release**

## RELEASE AUTHORIZATION

**Document Number:** HNF-2330, Revision 0

**Document Title:** Quality Assurance Program Plan Fuel Supply Shutdown

**This document, reviewed in accordance with DOE Order 1430.1D, "Scientific and Technical Information Management," and DOE G 1430.1D-1, "Guide to the Management of Scientific and Technical Information," does not contain classified or sensitive unclassified information and is:**

**APPROVED FOR PUBLIC RELEASE**

*V. L. Birkland*  
\_\_\_\_\_  
V. L. Birkland

9/21/98  
\_\_\_\_\_

Lockheed Martin Services, Inc.  
Document Control/Information Clearance

Reviewed for Applied Technology, Business Sensitive, Classified, Copyrighted, Export Controlled, Patent, Personal/Private, Proprietary, Protected CRADA, Trademark, Unclassified Controlled Nuclear Information.

Trademark Disclaimer. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof or its contractors or subcontractors. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof. This report has been reproduced from the best available copy.

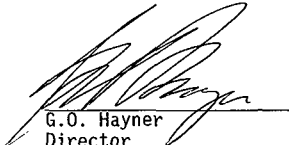
Printed in the United States of America.

Available to the U.S. Department of Energy and its contractors from the U.S. Department of Energy Office of Scientific and Technical Information, P.O. Box 62, Oak Ridge, TN 37831; Telephone: 423/576-8401.

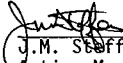
Available to the public from the U.S. Department of Commerce National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161; Telephone: 703/487-4650.

**B&W HANFORD COMPANY  
FUEL SUPPLY SHUTDOWN PROJECT**

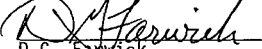
**QUALITY ASSURANCE PROGRAM PLAN**

  
G.O. Hayner  
Director  
300 Area Stabilization Project


7/6/98  
Date

  
J.M. Steffen  
Acting Manager  
Quality Assurance and Safety  
Manager  
Fuel Fabrication Operations  
300 Area Stabilization Project

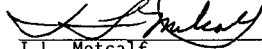
7/2/98  
Date

  
D.G. Farwick  
QA Manager  
B&W Hanford

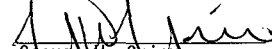
7/6/98  
Date

  
J.E. Parker  
Manager, FFTF Quality Assurance  
B&W Hanford

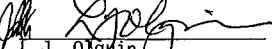
7/2/98  
Date

  
I.L. Metcalf  
Manager  
Fuel Supply Shutdown Project


7/6/98  
Date

  
George W. Grier  
Vice President, Quality Assurance  
Fluor Daniel Hanford, Inc.

7/16/98  
Date

  
L.J. O'Guin  
Manager - Director  
Facility Stabilization Project

7-21-98  
Date

  
Arthur Clark, President and General Manager  
B&W Hanford Company

7/15/98  
Date

## FUEL SUPPLY SHUTDOWN PROJECT

### CONTENTS

1.0 SCOPE .....	1
2.0 POLICY .....	1
3.0 FSS PROJECT DESCRIPTION .....	1
4.0 QUALITY ASSURANCE AND QUALITY CONTROLS; A GRADED QUALITY APPROACH .....	1
5.0 RESPONSIBILITY AND AUTHORITY .....	3
6.0 MANAGEMENT .....	3
6.1 Program .....	3
6.2 Personnel Training and Qualification .....	4
6.3 Quality Improvement .....	5
6.4 Documents and Records .....	6
7.0 PERFORMANCE .....	6
7.1 Work Processes .....	6
7.2 Design .....	7
7.3 Procurement .....	8
7.4 Inspection and Acceptance Testing .....	9
8.0 ASSESSMENT .....	10
8.1 Management Assessments .....	10
8.2 Independent Assessments .....	10
9.0 REFERENCES .....	11
APPENDIX	
A UNIQUE REQUIREMENTS AND IMPLEMENTATION DEFICIENCIES .....	13
B QAPD IMPLEMENTATION MATRIX .....	14
C CURRENT FSS PROJECT FACILITIES .....	19

### LIST OF FIGURES

1. Organizational Chart .....	12
-------------------------------	----

## 1.0 SCOPE

This Quality Assurance Program plan (QAPP) describes how the Fuel Supply Shutdown (FSS) project organization implements the quality assurance requirements of HNF-MP-599, *Project Hanford Quality Assurance Program Description* (QAPD) and the B&W Hanford Company Quality Assurance Program Plan (QAPP), FSP-MP-004. The QAPP applies to facility structures, systems, and components and to activities (e.g., design, procurement, testing, operations, maintenance, etc.) that could affect structures, systems, and components. This QAPP also provides a roadmap of applicable Project Hanford Policies and Procedures (PHPP) which may be utilized by the FSS project organization to implement the requirements of this QAPP.

## 2.0 POLICY

The quality requirements described herein are binding on all FSS project personnel and all activities conducted by BWHC and BWHC sub-contractors within the FSS project complex. The Quality Assurance program described in this plan applies to all facilities within the responsibility of the 300 Area FSS project organization. Facilities which are not classified as non-reactor nuclear facilities will follow the requirements of this document but will not be responsible for penalties as are the non-reactor nuclear facilities. The Quality Assurance program also applies to those activities associated with transition to shutdown. These activities include waste packaging, transfer of stored uranium and maintenance of facilities. To achieve quality, the FSS project organization shall implement the quality management system described in this document.

## 3.0 FSS DESCRIPTION

FSS is comprised of a variety of facilities or buildings in the 200 area and 300 area. FSS facilities have ceased operations and are in transition for turnover to decommissioning. The FSS project facilities include both nuclear and non-nuclear facilities. Fissionable material movements have stopped except for those movements required to bring the facilities to a stabilized condition for turnover. For a complete listing of FSS project nuclear facilities, see WHC-SD-NR-ISB-001 (Interim Safety Basis for Fuel Supply Shutdown Facility) and WHC-SD-CP-ISB-003 (ISB for Uranium Trioxide (UO<sub>3</sub>) Powder). For a listing of facilities under the cognizance of the FSS project organization see appendix C.

## 4.0 QUALITY ASSURANCE AND QUALITY CONTROLS; A GRADED QUALITY APPROACH

The requirements of this QAPP and the implementing procedures shall be applied to nuclear and non-nuclear facilities and to activities associated with the facilities on a graded basis. The graded

application process shall not be used to eliminate requirements of 10 CFR 830.120 or DOE Order 5700.6C, which apply to the scope of work performed; rather, it shall be used to determine the scope and degree of rigor of the application of those requirements. In practical terms, the graded application of QA Program requirements is normally achieved through varying a combination of the following.

- The extent to which procedures, instructions, or specifications define the processes or work methods involved.
- The extent of assessment, verification, review, or oversight activities.
- The extent of documentation required.
- The degree of control over procurement activities, and the methods used for qualification and selection of suppliers.
- The nuclear safety classification of the item or activity. Current revisions to FSS Project Interim Safety Basis documents/SAR's will provide any systems, components or structures which are determined to be safety class or safety significant. Systems, components or structures not listed as safety significant or safety class(SS/SC) in Interim Safety Basis documents/SAR's are considered to be general services(GS). In accordance with WHC-SD-NFUEL- ISB-001 and HNF-SD-CP-ISB-001, there are no SS/SC systems, components or structures within the Fuel Supply Shutdown project facilities.
- The level of risk and impact associated with a failure or deficiency of an item or activity.

For those systems, components or structures which are determined to be GS, the graded approach consists of using those administrative processes established in HNF-PRO,s, BWHC and FSS project level procedures that are defined in the attached implementation matrix. Where applicable, these processes have applications of a graded approach specified within them.

The design authority, on a case by case basis, may determine a need to apply additional QA controls (e.g. inspection, testing, reviews & approvals, etc.) to mitigate the risk associated with performing a task or the failure of an item. If additional controls are required, drawings, specifications and other work instructions will then be prepared that identify what characteristics/functions need to be verified, inspected or tested along with the necessary acceptance criteria required to measure conformance.

Listed below are some criteria that should be considered when determining when these additional controls may be applied:

- The task or SSC performs a function that minimizes risk to the workers or the public (e.g. HVAC systems, High pressure steam lines, Backflow preventers, etc.)
- Independent verification is required by some national consensus standard (e.g. AWS D1.1, ANSI B31.1, ASME B&PV Code Section VIII, etc.)
- The task or SSC performs a function that minimizes negative impact to the environment (e.g. Air monitoring systems, Structural containment barriers, HEPA filtration systems, etc.)
- The task or SSC performs a function that minimizes damage to the facility, its equipment or jeopardizes the facility's or project's mission.
- Other factors (e.g. High cost of replacement, adverse publicity, etc.) not addressed previously as determined by management and/or the design authority.

## **5.0 RESPONSIBILITY AND AUTHORITY**

The management and staff of FSS project carry out their assigned responsibilities, conduct the business of operating the facility, and the closure and cleanup of the facility buildings in accordance with established procedures. See Figure 1 for the FSS project organizational structure.

The FSS project manager is responsible for the overall implementation of the FSS project Quality Assurance Program. Reporting to the FSS project manager are staff personnel who are responsible for implementing the specific quality assurance requirements of the QA program which apply to the FSS project. Specific duties and responsibilities of the FSS project manager and staff are described in HNF-CM-5-35 section 01-01.

The organizational structure and the assignment of responsibility is such that quality is achieved and maintained by those who are assigned responsibility for performing the work; and quality achievement is verified by persons not directly responsible for performing the work.

## **6.0 MANAGEMENT**

### **6.1 Program**

A written quality program, comprised of a hierarchy of documents, has been established and is being maintained. The B&W corporate policy on quality reflects management commitment to the establishment of an effective quality program. The policy describes the quality management systems required to ensure the safe and effective accomplishment of the objectives and missions at the FSS project facilities. Application of the Quality Assurance program is based on a graded approach, which is consistent



with the complexity of the item and consequences of failure.

The hierarchy of quality assurance requirements is illustrated in the FDH QAPD (HNF-MP-599). HNF-MP-599, Project Hanford Quality Assurance Program Description, is the first-level implementing manual in the hierarchy and is the link to project-specific procedures and directives. The project-specific procedures and directives, in turn, provide facility-specific requirements for work performance instructions.

The general structure, interfaces, levels of authority and functional responsibilities for PHMC organizations are defined in Part 1, section 1 of the FDH QAPD and the M&I plan.

Management at all levels plan, organize, and provide the support necessary to apply the FSS project QA Program to their activities and products.

Personnel responsible for assuring that the FSS project QA Program has been properly implemented and for verifying that activities affecting quality have been correctly performed have direct access to management at a level where appropriate action can be effected.

The organizational structure and the assignment of responsibility is such that quality is achieved and maintained by those who are assigned responsibility for performing the work; and quality achievement is verified by persons not directly responsible for performing the work.

Readiness reviews are performed when required and in accordance with applicable procedures.

All personnel have the authority to stop work they judge to have an imminent hazard, and places their personal safety or the safety of their coworkers at risk. Other work stoppages for significant quality concerns are accomplished through routine management processes.

## **6.2 Personnel Training and Qualification**

The Personnel Training and Qualification program has been established to ensure that personnel are trained and qualified to perform assigned tasks. The training and qualification program provides for the development of personnel proficiency commensurate with the scope, complexity, and nature of an assigned activity. Management is responsible for developing generic staff position requirements based on the level of education and experience necessary for proficient performance of tasks related to a given staff position.

Facility managers and contractors that provide personnel to support facility operations are responsible for ensuring that staff members are sufficiently trained to perform assigned tasks.

Training and indoctrination of personnel is performed to ensure proficiency is achieved and maintained. Continuing training is provided as necessary for personnel to maintain proficiency.

Qualification of personnel assigned to conduct inspection and/or activities for acceptance is documented.

Records are maintained to enable verification of personnel qualification and completion of required training.

### **6.3 Quality Improvement**

The objective of quality improvement is to prevent problems and to continuously improve the quality of items and work processes. The basis to quality improvement is that (1) work activities can be planned, performed, assessed, and improved and (2) lessons learned from this process can be used when planning subsequent activities. The focus of the quality improvement process is to reduce the variability of work processes that influence the quality of the product. Processes for identifying and reporting deficiencies are developed and implemented. Personnel are encouraged to identify potential areas for improvement.

Under the corrective action program, personnel have the authority to identify quality problems and to initiate, recommend, or provide solutions through designated channels. Management systems (e.g., root cause analysis, lessons learned) are used to plan, implement, and evaluate improvements. Deficiency identification, response, and action verification are documented and tracked in the PHMC-wide deficiency tracking system managed by FDH.

Nonconformances discovered during plant evolutions are identified on a Plant Work Request (J-1) for correction and are tracked by the Job Control System (JCS). Nonconformances requiring investigation for cause and corrective action are documented by an NCR or under the provisions of the occurrence reporting procedures.

Items, services, and processes that do not meet established quality requirements are identified, controlled, and corrected as soon as practical in accordance with established priorities. Controls placed on nonconforming items prevent inadvertent installation or use through identification, documentation, evaluation, segregation (when applicable), and disposition of the items. Processes and services that do not conform to specified requirements are controlled so that the output of the process or service is not inadvertently used. Corrective actions are designed to be commensurate with the significance of the nonconforming condition. Conditions that pose significant risk are evaluated to determine the root cause of the condition and to determine actions that will preclude recurrence.

Personnel responsible for reviewing and dispositioning nonconformances have an adequate technical understanding of the items or activities involved and have access to pertinent information relative to the nonconformance.

Repaired or reworked items are reexamined in accordance with applicable procedures and with the

original acceptance criteria unless the nonconforming item disposition has established alternate acceptance criteria. Satisfactory completion of actions required by the nonconformance disposition is verified prior to closure.

Performance Indicators (PIs) are developed by FDH and used to identify trends relative to Project Hanford quality performance. FSS project management analyzes FSS project specific performance data for trends or other information useful for identifying opportunities to improve facility performance. Appropriate actions are taken when either adverse trends or improvement opportunities are identified. When an adverse trend is observed, cause analysis is performed to determine appropriate actions to reverse the trend.

## **6.4 Documents and Records**

The Documents and Records program establishes requirements for control of the preparation, review, approval, issuance, use and revision to documents that establish policies, prescribe work, specify requirements, or establish design to assure that correct documents are employed. Controlled documents and revisions to those documents are reviewed for adequacy, completeness, and correctness before approval. After approval, controlled documents are issued to specified users.

Records that furnish documentary evidence of quality are prepared, maintained, and stored in accordance with approved procedures and instructions. Records must be legible, identifiable, accurate, complete, protected, and retrievable. DOE 1324.2A, *Records Disposition*, sets forth mandatory use of the general records schedules published by the National Archives and Records Administration. These schedules define the retention periods of different document types.

## **7.0 PERFORMANCE**

### **7.1 Work Processes**

Work is planned, authorized, and performed in accordance with approved technical standards, instructions, procedures, and other control documentation commensurate with the complexity and risk posed by the work to be performed.

The Calibration program governs the process that ensures quality of the calibration and maintenance of process monitoring equipment. Equipment found to be out-of-calibration is tagged and not used until recalibrated. Items inspected or data taken with equipment found to be out-of-calibration are considered to be indeterminate. A review or reinspection is performed to determine the appropriate status.

Handling, storage, shipping, cleaning, and preservation of items are controlled to prevent damage, loss, or deterioration. Marking and labeling of items are maintained throughout packaging, shipping, handling, and storage. Special protective measures are specified and provided when required to maintain acceptable quality.

## 7.2 Design

Codes, standards, and practices utilized for the assurance of quality, are identified and incorporated into the design of new or replacement items through system design requirements documentation. Design documentation incorporates the applicable requirement and design basis of the codes, standards, and practices in effect on the date of design approval. Exceptions to preserve maintainability or interchangeability are handled on a case-by-case basis and documented in the design description.

Whenever possible, materials, components, and processes already in use and proven in similar applications are used. The design is approved for technical adequacy only when sufficient design data have been furnished to ensure that the design meets the specified requirements. Applicable data and documentation are used whenever necessary to validate changes and to establish requirements for design verification.

Engineering documents (e.g., drawings, specifications, design analyses, system descriptions, engineering studies, technical reports) are verified in accordance with approved procedures and instructions. The procedures identify the positions responsible for verification and require that design errors are identified and corrected. Documents cannot be released without verification. Verification of design documents is accomplished by individual or interdisciplinary design reviews, alternate calculations to verify the correctness of the original design calculations, or qualification testing to demonstrate adequacy of performance under conditions that simulate the most adverse design conditions. The extent of verification is based on the complexity, risk, and uniqueness of the design. The verification is accomplished by individual(s), other than the originator, who has adequate qualifications to have originated the work. The verification may be conducted by the originator's supervisor, if the originator's supervisor is the only technically qualified individual available.

Design changes, including field changes, are subject to design control measures commensurate to those applied to the original design. Verification and review of design changes are performed to the same level as that of the original design. As-built changes are documented and verified through field walk-downs before being incorporated into the original design documents.

Computer software used to originate or verify safety or other risk-sufficient design solutions during the design process is validated and the status of validation shall be identified and documented prior to use.

### 7.3 Procurement

Procurement activities are planned and documented to ensure a systematic approach to the procurement process. Procurement planning shall be commensurate with the importance of the purchased item or service to the facility or process.

Procurement procedures ensure that regulatory requirements, design and site investigation bases, and other necessary quality requirements are included or referenced in the documents used for procurement of material, equipment, and services. Procurement documents covered in this section include purchase orders, purchase requisitions, external work orders, and store orders.

Procedures are in place for preparation, revision, review, approval, issue, control, and retention of procurement documents. These procedures identify the requirements to be met by each supplier's quality assurance system and the instructions for submitting documents for information or approval. The procedures also specify the right of access to supplier facilities for source inspection and audits, including requirements for advance notification of inspection or tests to be witnessed.

Measures are established to ensure that purchased material, equipment, and services conform to the procurement documents. Established measures include provisions for source evaluation and selection, objective evidence of inspection at the contractor or subcontractor source, examination of products upon delivery, and audits. Documentary evidence that materials and equipment conform to code, regulation, or contract procurement requirements is made available before installation or before use.

The requirement for a documented quality assurance program is specified in applicable procurement documents and is invoked on the basis of the safety function of the items or services being procured. The extent of the documented supplier quality assurance program, when required, depends upon the type and use of the item or service being procured.

Supplier capability to provide items or services is evaluated before selection and periodically during supplier performance. The evaluation and selection of procurement sources is based on specified criteria. The evaluation includes one or more of the following:

- Evaluation of each supplier's quality history of providing an identical or similar product that performs satisfactorily in actual use
- Review of each supplier's current quality assurance records supported by documented qualitative and quantitative information that can be objectively evaluated
- Direct evaluation of each supplier's facilities, personnel, and quality assurance program implementation to determine the technical and quality capability of that supplier.

- Procured items and services shall meet established requirements and perform as specified. Methods used to accept an item or service from suppliers consist of one or more of the following:

- Supplier certification and release (Certificate of Conformance)
- Source verification or inspection
- Receiving inspection
- Acceptance testing
- Post-installation testing.

Where the design utilizes commercial grade items (CGI) in safety class or safety significant applications, the following requirements are an acceptable alternative to other requirements of this section:

- The CGI and its critical characteristics shall be identified by the cognizant design organization.
- The acceptance method used for CGI shall be specified by the cognizant design organization and shall provide assurance that the item to be received will meet specified critical characteristics.
- Procurement documents shall indicate that the material or item is intended to be dedicated for use in a safety class or safety significant installation or application.

#### **7.4 Inspection and Acceptance Testing**

Inspection, surveillance, and testing of items and activities that have the potential to affect quality during procurement, construction, repair, modification, maintenance, and installation are subject to these requirements. Suppliers and contractors are expected to inspect and test their own work. Surveillances are performed to ensure that these inspections and tests are adequately and competently performed.

Hold points (e.g., items or activities of which inspection is mandatory), checklists, and other inspection planning documents are established and implemented to ensure required inspections are performed.

Inspection and acceptance criteria are derived from engineering design documents, supplier information, construction procedures, and maintenance procedures. Inspection procedures and instructions identify the following:

- References to applicable documents such as drawings, specifications, and procedures
- Type of inspection to be performed
- Characteristics to be inspected
- Individuals or groups responsible for performing the inspection

- Acceptance criteria (explicit or by reference) obtained from specifications, drawings, supplier instructions and standards
- Description of the inspection method and equipment to be used, or referenced to an appropriate procedure
- Frequency of inspection or sampling plan

Inspections and tests are performed by technically qualified personnel who have the freedom of access and communication to report inspection and test results. Inspections and tests are performed following approved written directions. Independent acceptance inspection, where required, is performed by an organization that is independent of the organization performing the work.

Inspection and test results are documented and conformance with acceptance criteria evaluated to ensure that requirements have been satisfied.

The status of inspection and test activities is identified either on the items or in documents traceable to the items to ensure that items that have not passed the required inspections and tests are controlled.

Measuring and Test Equipment (M&TE) used in verifying conformance to requirements, monitoring processes, or collecting data is controlled, calibrated and maintained.

## **8.0 ASSESSMENT**

### **8.1 Management Assessments**

Management assessments are conducted by or at the request of an organization manager to identify problems that are hindering the accomplishment of management objectives. The responsibility for establishing a management assessment program is assigned to the division-level management. When problems are discovered, the method of identification and correction shall be established by the division-level management.

### **8.2 Independent Assessments**

FSS project management is responsible for cooperating with FDH independent assessment personnel in planning, preparation, and performance of assessments. FSS project management is responsible for promptly correcting problems found by independent assessments and ensuring corrective action is effective.

## 9.0 REFERENCES

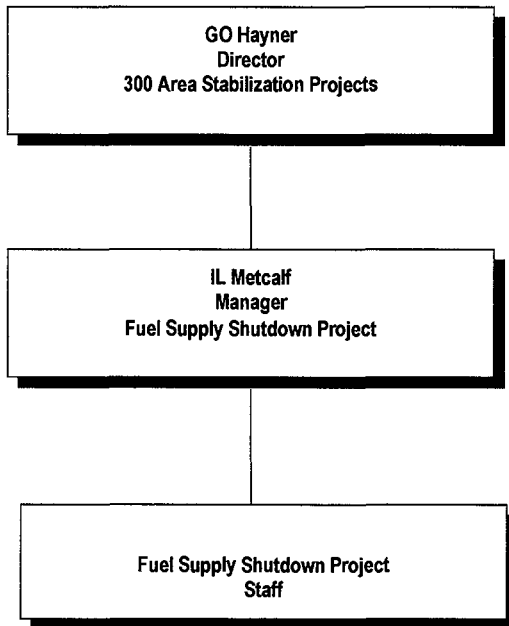
10 CFR 830.120, 1996, "Quality Assurance Requirements," *Code of Federal Regulations*.

DOE 1324.2A, 1995, *Records Disposition*, U.S. Department of Energy, Washington, D.C.

DOE Order 5700.6C, Quality Assurance



**FIGURE 1**  
**FUEL SUPPLY SHUTDOWN PROJECT**  
**ORGANIZATIONAL CHART**



APPENDIX A  
**UNIQUE REQUIREMENTS AND IMPLEMENTATION DEFICIENCIES**

**UNIQUE REQUIREMENTS**

NONE

**IMPLEMENTATION DEFICIENCIES**

NONE

**APPENDIX B**

The QAPD Implementation Matrix identifies the quality assurance requirements and exceptions with justifications for those activities affecting quality.

NOTE: This implementation matrix is based on a cross-reference between the Controlled Manual (CM) System and the Project Hanford Policy and Procedure (PHPP) System (ref.: HNF-MD-034, Project Hanford Policy and Procedure System Reference Map). This cross-reference is referred to as the CM-Map. The procedures in this matrix may change; therefore, it may be necessary for the user of this document to verify the accuracy of these references. Where there is not a facility specific procedure referenced, PHMC-WIDE procedures are the implementing procedures for the facility.

<b>QAPD IMPLEMENTATION MATRIX</b>		
<b>PROJECT HANFORD QAPD PART 2</b>	<b>IMPLEMENTING PROCEDURES</b>	
	<b>PHMC-WIDE PROCEDURES</b>	<b>CONTRACTOR PROCEDURES</b>
<b>SECTION 1, PROGRAM</b>	HNF-MP-599	
• Quality Assurance Program Plans	HNF-PRO-261	
• Project Hanford QA Requirements Flowdown	HHF-MP-001	
• Quality Planning	HNF-PRO-261	
• Organization, Responsibilities, and Interfaces	HNF-MP-001	FSP-FSS-5-35 section 01-01
• Readiness Review	HNF-PRO-055	
• Stop Work Authority		
• Graded Application of Project Hanford QA Program	HNF-PRO-233, HNF-PRO-704	section 4.0 this QAPP

<b>QAPD IMPLEMENTATION MATRIX</b>		
<b>PROJECT HANFORD QAPD PART 2</b>	<b>IMPLEMENTING PROCEDURES</b>	
	<b>PHMC-WIDE PROCEDURES</b>	<b>CONTRACTOR PROCEDURES</b>
<b>SECTION 2, PERSONNEL TRAINING AND QUALIFICATION</b>	HNF-MP-599	
<ul style="list-style-type: none"> <li>• Project Hanford Training and Qualification Program</li> </ul>	HNF-PRO-175, HNF-PRO-176, HNF-PRO-177	
<ul style="list-style-type: none"> <li>• Training and Indoctrination</li> </ul>	HNF-PRO-168 THROUGH HNF-PRO-174	FSP-FSS-5-35 section 05-02
<ul style="list-style-type: none"> <li>• Qualification and Certification</li> </ul>	HNF-PRO-263	FSP-FSS 5-35 section 05-02
<ul style="list-style-type: none"> <li>• Training and Qualification Records</li> </ul>	HNF-PRO-175, HNF-PRO-176	FSP-FSS-5-35 section 01-03

<b>SECTION 3, QUALITY IMPROVEMENT</b>	HNF-MP-599, HNF-PRO-060	
• Deficiency Identification	HNF-PRO-653	
• Corrective Action Management	HNF-PRO-052	
• Nonconformance Control	HNF-PRO-298	
• Performance Data Analysis	HNF-PRO-052 HNF-PRO-653	
• Control of Suspect/Counterfeit Items	HNF-PRO-301	
<b>SECTION 4, DOCUMENTS AND RECORDS</b>	HNF-MP-599, HNF-PRO-208, HNF-PRO-210, HNF-PRO-230, HNF-PRO-460, HNF-PRO-589	
• Documents	HNF-PRO-224	FSP-FSS-5-35 section 01-03
• Records	HNF-PRO-222, HNF-PRO-214	FSP-FSS-5-35 section 01-03
<b>SECTION 5, WORK PROCESSES</b>	HNF-MP-599, HNF-PRO-062, HNF-PRO-069, HNF-PRO-229, HNF-PRO-283, HNF-PRO-286, HNF-PRO-430, HNF-PRO-443	
• Work Process Documents	HNF-PRO-700	FSP-FSS-5-35 section 02-01
• Special Processes	HNF-MP-599	
• Identification and Control of Items		
• Handling, Shipping, and Storing	HNF-MP-599	
• Process Monitoring or Data Collection Instruments	HNF-PRO-490	
• Control of Computer Software		

<b>SECTION 6, DESIGN</b>	HNF-MP-599,	
• Design Input	HNF-PRO-239	
• Design Process	HNF-PRO-97	
• Design Verification	HNF-PRO-445	
• Design Changes	HNF-PRO-440	
• Design Documentation and Records	HNF-PRO-227, HNF-PRO-239, HNF-PRO-240, HNF-PRO-241, HNF-PRO-242, HNF-PRO-243, HNF-PRO-244, HNF-PRO-317, HNF-PRO-431, HNF-PRO-439, HNF-PRO-442, HNF-PRO-448, HNF-PRO-554	
• Computer Software		
<b>SECTION 7, PROCUREMENT</b>	HNF-MP-599, HNF-PRO-186, JHNF-PRO-268, HNF-PRO-335, HNF-PRO-441, HNF-PRO-444, HNF-PRO-565, HNF-PRO-1842	
• Procurement Planning	HNF-PRO-268	
• Content of Procurement Documents	HNF-PRO-123	
• Supplier Evaluation and Selection	HNF-PRO-268, HNF-PRO-447	
• Control of Supplier Nonconformance	HNF-PRO-268	
• Acceptance of Items and Services	HNF-PRO-268	
• Commercial Grade Items	HNF-PRO-447	
• Control of Supplier-Generated Documents	HNF-PRO-268	
• Control of Suspect/Counterfeit Items	HNF-PRO-301	

<b>SECTION 8, INSPECTION AND ACCEPTANCE TESTING</b>	HNF-MP-599, HNF-PRO-283, HNF-PRO-297, HNF-PRO-1607	
• Inspection and Acceptance Testing Planning	HNF-PRO-286	
• Inspection and Acceptance Testing Process	HNF-PRO-446	
• Inspection and Acceptance Testing Results	HNF-PRO-446	
• Inspection and Acceptance Testing Status	HNF-PRO-446	
• Calibration of Measuring and Test Equipment	HNF-PRO-490	
<b>SECTION 9, MANAGEMENT ASSESSMENT</b>	HNF-MP-599, HNF-PRO-653	
• Management Assessments	HNF-PRO-246	FSP-FSS-5-35 section 01-16
• Corrective Action	HNF-PRO-052	

Appendix C  
CURRENT FSS PROJECT FACILITIES

Building	Description
303A	Storage
303B	Storage
303E	Storage
303F	Pump House
303G	Storage
303K	Storage
303M	Uranium Oxide Facility
304/304A	Uranium Scrap Concretion
311 TF	Tank Farm
313	Reactor Fuel Manufacturing
333	N-Fuel Manufacturing
334	Chemical Storage
334A	Chemical Waste Receiving
3707G	Change House
3712	Storage
3716	Storage
309	PRTR
321	Hydromechanical/Seismic
3706	Communication&Document Services
377	Geotechnical Engineering Lab
200 Area	T-Hopper Storage Pad