ENGINEERING CHANGE NOTICE

2. ECN Category (mark one)
   - Supplemental
   - Direct Revision
   - Change ECN
   - Temporary
   - Standby
   - Supersede
   - Cancel/Void

3. Originator's Name, Organization, MSIN, and Telephone No.
   W.A. Dautel, FFTF, N2-13, 373-9563

4. USQ Required?
   - Yes
   - No

5. Date
   6/13/00

6. Project Title/No./Work Order No.
   Fast Flux Test Facility (FFTF)

7. Bidg./Sys./Fac. No.
   N/A

8. Approval Designator
   SQD

9. Document Numbers Changed by this ECN (includes sheet no. and rev.)
   HNF-5243, Revision 0

10. Related ECN No(s).
    None

11. Related PO No.
    N/A

12a. Modification Work
    - Yes (fill out Bk. 12b)
    - No (NA Bks. 12b, 12c, 12d)

12b. Work Package No.
     N/A

12c. Modification Work Completed
     N/A

12d. Restored to Original Condition (Temp. or Standby ECNs only)
     N/A

13a. Description of Change
     This ECM updates the FFTF Authorization Agreement, HNF-5243, by:
     1. Deleting JCO 99-01 as an Authorization Basis document in Section 3.1 based on DOE's approval of ENC 629750.
     2. Updating the latest amendment to the FFTF FSAR (for 78 to 79) in Section 3.1.

13b. Design Baseline Document
     - Yes
     - No

14a. Justification (mark one)
   - Criteria Change
   - Design Improvement
   - Environmental
   - Facility Deactivation
   - As-Found
   - Facilitate Const.
   - Const. Error/Omission
   - Design Error/Omission

14b. Justification Details
     This change is an update, reflecting changes already approved.

15. Distribution (include name, MSIN, and no. of copies)
   W.A. Dautel  N2-13  2 copies

RELEASE STAMP

SEP 25 2000
DATE:
STA: 43
HANFORD
RELEASE ID:
A-7900-013-1
### ENGINEERING CHANGE NOTICE

#### 16. Design Verification
- Required: [X] Yes
- Additional: [ ] Yes

#### 17. Cost Impact
- ENGINEERING
  - Additional: $ 
- CONSTRUCTION
  - Additional: $ 

#### 18. Schedule Impact (days)
- Improvement: [ ] Yes
- Delay: [ ] Yes

#### 19. Change Impact Review
- Indicate the related documents (other than the engineering documents identified on Side 1) that will be affected by the change described in Block 13. Enter the affected document number in Block 20.

<table>
<thead>
<tr>
<th>Document</th>
<th>Description</th>
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<tbody>
<tr>
<td>SDD/DD</td>
<td>Seismic/Stress Analysis</td>
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<td>Functional Design Criteria</td>
<td>Stress/Design Report</td>
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<td>Operating Spec.</td>
<td>Interface Control Drawing</td>
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<td>Criticality Spec.</td>
<td>Calibration Procedure</td>
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<td>Conceptual Design Report</td>
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<td>Equipment Spec.</td>
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<td>Procurement Spec.</td>
<td>Operating Instruction</td>
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<td>Vendor Information</td>
<td>Operating Procedure</td>
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<td>OM Manual</td>
<td>Operational Safety Requirement</td>
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<tr>
<td>FSARSAR</td>
<td>IEFD Drawing</td>
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<tr>
<td>Safety Equipment List</td>
<td>Cell Arrangement Drawing</td>
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<tr>
<td>Radiation Work Permit</td>
<td>Essential Material Specification</td>
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<tr>
<td>Environmental Report</td>
<td>Inspection Plan</td>
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<tr>
<td>Environmental Permit</td>
<td>Inventory Adjustment Request</td>
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#### 20. Other Affected Documents
- None

#### 21. Approvals

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<tr>
<td>Design Authority N/A</td>
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**DEPARTMENT OF ENERGY**

Signature or a Control Number that tracks the Approval Signature

- 00-ABD-048

**ADDITIONAL**

- 
- 
- 

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A-7900-013-3 (10/97)
Mr. R. D. Hanson, President  
Fluor Hanford, Inc.  
Richland, Washington 99352

CONTRACT NUMBER DE-AC06-96RL13200 - FAST FLUX TEST FACILITY (FFTF)  
AUTHORIZATION AGREEMENT (AA), REVISION 1

RL has approved the attached Revision 1 of the FFTF AA, as requested by your letter to me dated June 27, 2000 (FH-0003266), same subject. This AA contains key terms and conditions specific to the FFTF under which FHI is authorized to perform work. Any changes to the terms and conditions of this AA require RL approval.

Attached is the signed AA which becomes effective 30 days following the date of final signature of both parties and shall remain in effect until rescinded or revised by both parties in accordance with Clause H.58 of the Project Hanford Management Contract (PHMC) Modification M032. The terms of this AA, if breached in any manner by any party, shall not subject the breaching party to any liabilities, fines, or penalties not already imposed under the terms and conditions of the PHMC and current statutes, rules, regulations and ordinances.

If you have any questions, please contact me, or your staff may contact Pete Garcia of the Authorization Basis Division on (509) 372-1909.

Sincerely,

[Signature]

Keith A. Klein  
Manager

Attachment

cc w/attach:  
B. A. Austin, FHI  
W. A. Dautel, FHI  
G. R. Franz, FHI  
D. B. Van Leuven, FHI
<table>
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FFTF Authorization Agreement

Prepared for the U.S. Department of Energy
Office of Nuclear Energy

Project Hanford Management Contractor for the
U.S. Department of Energy under Contract DE-AC06-96RL13200
Fluor Hanford
P.O. Box 1000
Richland, Washington

Approved for public release; further dissemination unlimited
FFTF Authorization Agreement

Document Type: AA
Division: FFTF

Key Words: Authorization Agreement, Authorization Envelope

Date Published
September 2000

Prepared for the U.S. Department of Energy
Office of Nuclear Energy
Project Hanford Management Contractor for the
U.S. Department of Energy under Contract DE-AC06-96RL13200

Fluor Hanford
P.O. Box 1000
Richland, Washington

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<th>Revision</th>
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<td>RS1</td>
<td>Complete revision. Deletes JCO 99-01 and updates revision number of FFTF FSAR. ECN 659720</td>
<td>RK Hulvey 2/25/00</td>
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A-7320-005 (10/97)
FAST FLUX TEST FACILITY AUTHORIZATION AGREEMENT

between

U. S. DEPARTMENT OF ENERGY, RICHLAND OPERATIONS OFFICE

and

FLUOR HANFORD

1. PURPOSE

The purpose of the Authorization Agreement is to serve as a mechanism whereby the U.S. Department of Energy, Richland Operations Office (RL) and Fluor Hanford (FH) jointly clarify and agree to key conditions for conducting work safely and efficiently in the Fast Flux Test Facility (FFTF). Work must be accomplished in a manner that achieves high levels of quality while protecting the environment and the safety and health of workers and the public, and complying with applicable contractual and regulatory requirements. It is the intent of this Agreement to address those items of significant importance in establishing and supporting the FFTF Authorization Envelope, but this Agreement in no way alters the terms and conditions of the Project Hanford Management Contract (PHMC), Contract Number DE-AC06-96RL13200.

2. SCOPE

This agreement applies to operation of the FFTF Plant in standby and within the constraints of the documents listed in Section 3. The authorized mission is to maintain the FFTF Plant and affiliated 400 Area buildings in a safe and compliant standby condition. The condition of the plant hardware, software and personnel is to be preserved in a manner not to preclude a plant restart.

For the purpose of safety related documents (Authorization Basis, SARs, Hazard Categorization, USQ programs), the FFTF Plant is comprised of:

(i) The following buildings:

- 403 Fuel Storage Facility
- 405 Containment Building
- 453A, B, C DHX Switchgear A1, A2, A3
- 480A, B, D Deepwell Pumphouses
- 481 Old Pumphouse
- 481A New Pumphouse
- 484 Chiller Building
- 491E, S, W Heat Transport Buildings
- 4621E, W Auxiliary Buildings
- 4703 Control Building
- 4716 Rigging Loft
- 4717 Reactor Service Building
- 4721 Turbine Generator Building
Major equipment which directly supports FFTF systems. For example:
- 408A, B, C  Dump Heat Exchangers
- 451A, B  Sub Stations
- 482A, B, C  Water Storage Tanks
- 483  Cooling Towers
- 4734A  Dewar Pad

The Interim Storage Area (ISA) for dry storage of irradiated fuel and the shelter building 432A. Although the ISA is an open area, in the Job Control System database, the ISA is designated as building number 4718.

Portions of FFTF systems not included in (i), (ii) or (iii) above (e.g., fire water loop piping). For systems such as the fire water loop and electrical supplies, portions of systems are not considered part of the FFTF Plant if they can be isolated by one valve, breaker, etc., from the plant system.

3. AUTHORIZATION ENVELOPE

The FFTF Authorization Envelope establishes the limits of safe operation for all FFTF activities. These limits are based on documented design limitations, controls, regulatory constraints, and assumptions or commitments that are required and based on identified hazards associated with the FFTF facilities and operations. The Authorization Envelope includes the FFTF Authorization Basis as defined in Department of Energy (DOE) Nuclear Safety Orders (i.e., DOE Order 5480.21), as well as the Standards/Requirements Identification Documents (S/RID) and applicable environmental requirements. The documents listed below constitute the FFTF Authorization Envelope. FH shall maintain the documents under a disciplined configuration management program. FH shall assure that FFTF operations conform to these documents.

The FFTF Authorization Envelope consists of Sections 3.1, 3.2, and 3.3 of this document.

3.1 Safety Basis:

The FFTF Authorization Basis:


Other Safety-Related Documentation:

(i) Chapter 20 of the FFTF Final Safety Analysis Report contains all Criticality Prevention Specifications, their bases, and the reference document listing.

(ii) WHC-SD-FF-FHA-001, “Fire Hazards Analysis for the Fast Flux Test Facility.”

3.2 The FFTF Environmental, Safety and Health (ES&H) Requirements Basis:

(i) HNF-SD-MP-SRID-006, “Fast Flux Test Facility Standards/Requirements Identification Documents (S/RID).”

(ii) HNF-SD-MP-SRID-002, “FDH Contract Standards/Requirements Identification Documents (S/RID).”

3.3 The FFTF environmental program portion of the Authorization Envelope consists of those permits, control documents, and other legal documents issued by an authorized agency under the authority of the Resource Conservation and Recovery Act, as amended; the comprehensive Environmental Response, Compensation, and Liability Act, as amended; the Clean Air Act, as amended; the Federal Water Pollution Control Act (Clean Water Act), as amended; and the National Environmental Policy Act, as amended. The environmental program documents are:

(i) Fast Flux Test Facility Final Safety Analysis Report, Chapter 18, “FFTF Environmental Specifications” (Part of the Authorization Basis, see Part 3.1 above).

(ii) Hanford Site Air Operating Permit Application (DOE/RL-95-07) for the 400 Area and applicable Notices of Construction.

(iii) State Waste Discharge Permit, No. ST 4501, for the Plant Cooling Water Location: 400 Area inside the FFTF perimeter fence on the Hanford Site. (Effective date 8/1/96, modified date 2/10/98)

(iv) State Waste Discharge Permit, No. ST 4508, for Hydrotect, Maintenance, and Construction on the Hanford Site, Richland, Washington. (Effective date 5/15/97)

(v) State Waste Discharge Permit, No. ST 4509, for Cooling Water and Condensate discharge locations on the Hanford Site, Richland, Washington. (Effective date 5/1/98)
(vi) 400 Area Secondary Cooling Water Sampling and Analysis Plan (HNF-SD-FF-PLN-002, Rev. 6) for the 400 Area Process Sewer, designed to implement the requirements of State Waste Discharge Permit, No. ST 4501, revised 2/10/98.

(vii) Phase II Liquid Effluent Program (Project W-252) Wastewater Engineering Report and BAT/AKART Studies, to update the 400 Area Secondary Cooling Water contained in Section 3.0 and Appendix B.6, due to modifications to State Waste Discharge Permit, No. ST 4501.


(ix) State Waste Discharge Permit, No. ST 4510, for industrial stormwater discharges to engineered land disposal structures on the Hanford Site. (Effective date 4/1/99)

(x) Dangerous Waste Permit Application, Part A, for the 400 Area (DOE/RL-91-28, Rev. 4).

(xi) Supplement Agreement #3, Contract No. AT(45-1)2269 between DOE and Energy Northwest (formerly Washington Public Power Supply System).

(xii) Environmental Assessment: Shutdown of the Fast Flux Test Facility, Hanford, Richland, Washington (DOE/EA-0993) for placing the FFTF in a safe condition, suitable for long-term surveillance and maintenance.

(xiii) Environmental Statement, Fast Flux Test Facility, Richland, Washington (WASH-1510) to provide information on all aspects of environmental impacts associated with the construction and operations of the FFTF.

(xiv) Voluntary compliance letters, notice of correction, notices of non-compliances, notices of violation, notices of penalty, administrative or consent orders, or other legal documents issued by an authorized agency with delegated regulatory authority that contain requirements applicable to the FFTF, including subsequent approved revisions to referenced documents.

This agreement shall be revised if new documents are added to or existing documents are deleted from the FFTF Authorization Basis, the FFTF Requirements Basis, and the FFTF environmental program portions of the Authorization Envelope. Revisions or updates to these Authorization Envelope documents shall not cause this Agreement to be revised.
4. TERMS AND CONDITIONS

The FFTF facilities and/or operations are subject to the terms and conditions as identified in PHMC Section C, "Statement of Work," and Section H, "Special Contract Requirements." The following are conditions supported by the PHMC specifically applicable to the FFTF.

4.1 Implement an unreviewed safety question (USQ) process consistent with the requirements of DOE Order 5480.2, "Unreviewed Safety Questions." Obtain RL approval if it is determined, through implementation of the USQ process, that proposed or existing physical or procedural changes and proposed tests or experiments affect the FFTF Authorization Basis or result in a FFTF Technical Specification change.

4.2 Follow all applicable federal, state, and local statutes, regulations, rules, ordinances (collectively, "Laws"), and permit conditions, unless a waiver or exemption is granted by the appropriate oversight authority, and implement the approved FFTF Standards/Requirements Identification Document (S/RID). Approval of an S/RID does not relieve FH of responsibility for complying with Laws and permit conditions that are not included in an S/RID. The S/RID is a living document that must be revised and updated to reflect currently applicable and appropriate requirements. Specifically, the S/RID shall be revised in a timely manner to reflect changes to applicable federal, state, and local laws, regulations, and permit conditions. Such changes do not require approval prior to implementation. Any other change to the S/RID must be submitted to RL for approval prior to implementation. The S/RID shall be resubmitted for RL review and approval at least annually. This submittal shall include a listing of changes made to or proposed for the S/RID and the supporting rationale. The annual submittal shall also include certification that the S/RID is current and appropriate for continued use.

4.3 Implement an integrated environmental, safety and health management system (ISMS) in accordance with the approved PHMC "Integrated Environmental, Safety and Health Management System Plan," HNF-MP-003, Revision 2, and all subsequently approved revisions.

4.4 Implement the approved "Project Hanford Quality Assurance Program Description," HNF-MP-599, Revision 3, and subsequently approved revisions consistent with Title 10, U.S. Code of Federal Regulations, Section 830.120 (10 CFR 830.120), "Quality Assurance Requirements."

4.5 Implement the approved "FDH Radiation Protection Program," HNF-SP-1145, Revision 2, and subsequent approved revisions consistent with 10 CFR Part 835, "Occupational Radiation Protection."
4.6 Conduct operations at the FFTF consistent with the approved applicability matrix required by DOE Order 5480.19, "Conduct of Operations Requirements for DOE Facilities."

4.7 If a deviation or noncompliance with the documents listed or referenced by Section 3 of this Agreement is discovered by FH, FH shall take actions noted in the applicable document. This Agreement does not impose any new actions to be taken by FH.

5. CONTRACTOR QUALIFICATIONS

RL has performed assessments and reviews in the areas of conduct of operations, configuration management, occupational safety, nuclear safety, and quality assurance. The results of these assessments and reviews indicate that the Contractor is technically qualified to perform the current mission of safely operating and maintaining the FFTF in a Standby condition.

The contractor meets the requirements of DOE Order 5480.20A, "Personnel Selection, Qualification and Training Requirements for DOE Nuclear Facilities," as defined and described in the Training Implementation Matrix.

6. STATEMENT OF AGREEMENT

This Authorization Agreement is subject to the conditions specified within this Agreement, and RL and FH each agree to the conditions contained herein. This Authorization Agreement becomes effective upon signature of the parties and shall remain in effect until rescinded or revised by both parties or shall expire upon expiration or termination of the PHMC. The terms of this Agreement, if breached in any manner by any party, shall not subject the breaching party to any liabilities, fines, or penalties not already imposed under the terms and conditions of the PHMC and current statutes, rules, regulations, and ordinances.

Signed by:

[Signature]
Ron D. Hanson, President and Chief Executive Officer
Fluor Hanford

Date: 6-27-00

Signed by:

[Signature]
Keith A. Klein, Manager
Richland Operations Office
U. S. Department of Energy

Date: JUL 26 2000