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Tri-Party Agreement

Changes Proposed To Hanford's Tri-Party Agreement

# Comments and Responses to the Tentative Agreement Regarding the Fast Flux Test Facility

*U.S. Department of Energy • U.S. Environmental Protection Agency • Washington State Department of Ecology*

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# Comments and Responses

## Introduction

In January 1997 the U.S. Department of Energy (DOE) changed the status of the Fast Flux Test Facility (FFTF) from deactivation to standby pending a decision, to be made by December 1998, on whether the facility will be utilized in the national tritium production strategy. In April 1997 the DOE Richland Operations Office (RL), State of Washington Department of Ecology (Ecology), and U.S. Environmental Protection Agency (EPA) agreed to conduct negotiations for the purpose of revising *Hanford Federal Facility Agreement and Consent Order* (Tri-Party Agreement, TPA) milestones for the FFTF, in accordance with Section 12, "Changes to the Agreement." Enclosure 1 shows those milestones and the proposed actions. These negotiations resulted in a tentative agreement signed October 14, 1997 (Enclosure 2).

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A formal public comment period was held from November 24, 1997 until February 20, 1998. Ecology is the lead regulatory agency for the M-81 series milestones and all facility transition projects at Hanford and, therefore, it and the DOE were the sponsors and primary agency participants in a series of four public meetings held in Portland, Oregon; Seattle, Washington; Richland, Washington; and Hood River, Oregon.

In this report, the DOE, Ecology, and EPA present the comments received (Appendix B), responses, and the actions taken. A total of 8390 comments from numerous individuals and groups (2464 commenters) were received. The 1406 comments that applied directly to the proposed agreement change were collated (Appendix A) and used by the three agencies in determining the adequacy of and revisions to the tentative agreement. The final agreement, signed in 1998, is provided as Enclosure 3. In summary, that final agreement

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- Places the existing M-81 series milestones and target dates, as well as the M-20-29A milestone, in a "To Be Determined" (TBD) status, pending the Secretary of Energy's expected decision on the future of the facility;
- Confirms that environmental compliance issues, should they arise during this interim period of consideration, will be addressed as part of Ecology's sitewide compliance assurance program;
- Establishes that, should the Secretary's decision be not to use the FFTF in the tritium production strategy and to resume shutdown activities, the original M-81 and M-20-29A milestone language and structure will be used and new dates established via new TPA transition milestone negotiations;
- Commits the parties to initiate negotiations on the FFTF transition milestones within 90 days of a decision not to use the FFTF as a production facility;
- Establishes the intent of DOE that the Office of Nuclear Energy, Science and Technology (NE) will establish and maintain the management and funding responsibility for the FFTF starting in fiscal year 1999; and
- Specifies that, should the Department of Energy decide to initiate the National Environmental Policy Act (NEPA) process considering the FFTF for tritium and/or medical isotope production and that process results in a Record of Decision (ROD) for restart, the M-81 and M-20-29A milestones would be deleted.

Many (6984) of the comments involved national policy issues that went beyond the narrower focus of the proposed agreement change. Those comments have been collected and indexed in accordance with the generic issue raised and response. That indexing is shown in Appendix A. The Availability of Information section on page 8 of this report describes where copies of Appendices A and B can be reviewed.

# Background

The FFTF is a 400-megawatt sodium-cooled nuclear reactor that operated from 1982 until 1992 to test advanced fuels and materials in support of the national Liquid Metal Fast Breeder Reactor program. The facility also produced a variety of medical and industrial isotopes, including tritium, and provided research and testing of components and systems for advanced power systems.

When efforts to identify a long-term mission for the FFTF were unsuccessful, the DOE began activities in 1993 to transition the plant to a safe, shutdown condition. The FFTF was placed under the TPA in 1994, and some of the transition milestones have been completed. The decision to shut down and deactivate the facility was made by the Secretary of Energy.

In January 1997, the Secretary of Energy issued a decision to place the FFTF in a standby mode, pending a determination on whether the facility will be used in the national tritium production strategy. As the Cabinet official responsible for furnishing tritium to the U.S. Department of Defense, the Secretary of Energy has the obligation to provide this material in the most reliable and cost-efficient manner practicable. It was the Secretary's determination that the FFTF, a facility within her purview of responsibility, could help meet those requirements.

At the time of the decision, the FFTF was in what the TPA refers to as the "Facility Transition Phase," which starts with termination of operations, includes the establishment of a surveillance and maintenance (S&M) program, and ends with the achievement of facility-specific end point criteria. The FFTF was about to enter the "Facility Disposition Phase", the final period in the life of a facility, with the draining of the secondary and primary sodium. The TPA defines this phase as taking place "when no future use is identified as part of the DOE-HQ facility assessment process."

Provision is made in the TPA to evaluate a facility "for future use." The January 1997 DOE-HQ facility assessment concluded that the FFTF did have a potential future use and that continued deactivation would preclude such use. That assessment resulted in a formal decision and action by the Secretary of Energy to place the FFTF in standby. Such a decision is the prerogative of the Department of Energy, given the DOE's stewardship responsibilities under the Atomic Energy Act.

Following the potential "future use" decision, the Department of Energy (1) initiated studies to provide the basis for a proper determination regarding the potential future use of the FFTF; and (2) initiated formal negotiations with the other TPA agencies in order to appropriately negotiate a modification to the FFTF milestones, given the change in status. Results of those studies are available on the FFTF Web site (http://www.fftf.org), at the three TPA repositories (Seattle, Spokane, and Portland), or at the Public Reading Room in Richland (see Availability of Information Section).

By December 1998 DOE is expected to decide whether or not FFTF will be considered further as an interim tritium production source. If it will be carried forward as an alternative to be evaluated for interim tritium production, then an Environmental Impact Statement (EIS) will most probably be prepared for FFTF, in accordance with the process outlined in the National Environmental Policy Act.

## TPA Change Control Process

As described in the Community Relations Plan for the Hanford Federal Facility Agreement and Consent Order (January 1997), a significant TPA change such as this one requires certain key steps:

(1) **Agencies Announce 45-Day Public Comment Period**
A formal public comment period was held from November 24, 1997 until February 20, 1998. In this case the comment period was extended to nearly twice the minimum time to account for the holiday season and the schedule delay for the public meeting in Hood River, Oregon, which was postponed due to inclement weather.

(2) **Agencies Decide Whether to Schedule Public Meetings**
Four public meetings were held in Portland, Oregon; Seattle, Washington; Richland, Washington,; and Hood River, Oregon. Those meetings are described in the Public Meeting and Comments Section and the transcripts are provided in Appendix B.

(3) **Agencies Consider and Respond to Public Comments**
This Comments and Responses document was prepared by the Agencies and formed the basis for determining the adequacy of and appropriate revision to the tentative agreement. Because many of the comments addressed national policy issues, a summary was provided to the cognizant office within the Department of Energy, Washington, D.C.

(4) **Final TPA Change and Comments and Responses Document Distributed**
As described in Availability of Information Section, this summary as well as the two appendices containing the comments and response information from the public meetings and correspondence generated during the public comment period ending February 20, 1998 are available at one of the three TPA repositories (Seattle, Spokane, and Portland), or at the Public Reading Room in Richland. Availability of Information Section also describes how individuals may request a copy of the final TPA change and the Comments and Responses document.

# Public Meetings and Comments

A series of public meetings were held regarding this proposed TPA revision in January and February 1998 throughout the Pacific Northwest region:

| | Attendees |
|---|---|
| **January 14**<br>Oregon State Office Building, Portland, Oregon | ~225 |
| **January 20**<br>Seattle Center Northwest Rooms, Seattle, Washington | ~450 |
| **January 22**<br>Federal Building, Richland, Washington | ~175 |
| **February 12**<br>Oregon Hood River Inn, Hood River, Oregon | ~250 |

Advertisements were placed in the local media before each meeting. The meetings were well-attended and although scheduled from 7:00 to 9:30 p.m., all meetings lasted until nearly midnight to provide the opportunity for attendees to offer their oral comments. This ensured that everyone was offered the opportunity to speak and express their views.

# Responses

The DOE, Ecology, and EPA received 8390 oral and written comments from individuals and groups. The written comments and oral transcripts of the public meetings are contained in Appendix B. A team of Ecology and DOE staff reviewed each of the inputs, indexing them in two ways (both shown in Appendix A):

(1) The first indexing was specifically related to the position taken relative to the proposed TPA change. Positions were not "force-fit" into a small number of options. If an input differed from the categories established, a new category was created. The resulting eight categories are shown below in Table 1.

**TABLE 1 - POSITIONS RELATIVE TO PROPOSED TPA CHANGE**

| Category (# Comments) | Comment / Position |
|---|---|
| 1 (846) | Favor deleting the milestones |
| 2 (8) | Favor deferring milestones, i.e., assign them as "TBD" |
| 3 (232) | Oppose deleting milestones |
| 4 (184) | Favor maintaining and meeting the milestones (no changes) |
| 5 (5) | Believe FFTF milestones should not be under the TPA because the facility is no longer in a deactivation mode |
| 6 (39) | Question the authority of Secretary of Energy to remove any item from the TPA |
| 7 (87) | Made general comments about the TPA change process and the TPA public involvement process, ex., "Change process was included in original TPA and precedents have been set"; "TPA is an 'agreement', not a law"; "EPA's absence at the FFTF TPA public meetings." |
| 8 (5) | Felt that retaining active milestones that are no longer relevant undermines the purpose/ credibility of the TPA, i.e., don't "ignore milestones." |

**Total = 1406 comments**

There are several observations that can be made regarding the input:

- Sixty percent of the comments received that directly addressed the TPA milestone change favored deleting the milestones (category 1). That opinion was heavily weighted by petition submittals sent in as written input, and

was not reflected in the percentage of oral comments received at the four public meetings.

- Of the 8390 total comments received, 1406 or 17% directly and specifically addressed the TPA change. Part of the reason for that apparently low number is that the 8390 comments were received from 2464 commenters[1]. In addition, at each of the public meetings and in the written call for comments, while individuals and groups were repeatedly asked to address the tentative agreement, in many cases they only spoke to national policy issues or restricted their input to a very generic rather than TPA-specific statement relative to FFTF (ex., "for startup" or "for deactivation").

(2) The second indexing involved relating the non-TPA-specific comments received to a set of generic national and/ or policy issues (and responses). Again, there was no attempt to "force-fit" a comment into a small number of options. If a comment differed from the generic categories established, a new category was created. Each category includes comments expressing the full range of opinions and perspectives. The resulting twenty-one categories, with comments and responses, are outlined below.

**TABLE 2 - COMMENTS / RESPONSES ON GENERIC ISSUES**

| Category (# Comments) | Comments | Responses |
|---|---|---|
| 1 (1178) | Tritium production, i.e., "don't need, " "don't want," "oppose" | Tritium is an essential component in weapons on which this country relies as the foundation of its nuclear deterrent strategic defense. The amount of tritium required is established in the Nuclear Weapons Stockpile Plan and approved by the President. Current projections based on the stockpile plan requirements necessitate additions to the stockpile on or before 2005. |
| 2 (148) | Weapons, i.e., "don't need, " "don't want," "oppose" | Nuclear weapons remain a key part of the nation's current defense strategy. The official policy of the United States for the past 30 years, since signing the Nuclear Non-Proliferation Treaty, has been the total elimination of nuclear weapons. But that is not a unilateral agreement; action is required on other nations' part. The United States has signed and ratified START II, reducing the number of strategic warheads. The Russians have signed the treaty, but the Duma, their parliamentary house, has not yet ratified this treaty. |
| 3 (183) | Concerned that dollars will be / have been diverted from cleanup | Hanford cleanup is funded by DOE's Office of the Assistant Secretary for Environmental Management (EM). FFTF funding, including operation, has been a separately-funded EM item since 1992. No monies have been taken from any other EM projects at Hanford to support the FFTF. The agreement called for in this document includes the intent for DOE to have all funding, including shutdown, be separately-funded by the Office of Nuclear Energy, Science and Technology starting in FY-1999. |
| 4 (26) | Concerned dollars being spent during standby "for nothing" | The DOE has adopted a dual-track strategy for tritium production; Accelerator Production of Tritium (APT) and Commercial Light Water Reactor (CLWR). The DOE has not selected either of these options as the primary, long-term source because of unresolved technical, economic, and institutional issues. Until these issues are resolved, the FFTF represents an inexpensive "insurance policy" for the DOE's tritium production responsibility. |
| 5 (40) [5 positive] [35 negative] | Resuming a production mission at Hanford (pro and con) | As the Hanford Strategic Plan clearly states, primary emphasis is placed on safely cleaning up and managing the site's legacy wastes. However, there has also been a commitment to use, where appropriate, existing Hanford Site capabilities and assets where they can support national and international needs. |
| 6 (173) | General comments that oppose medical isotope production, i.e., "It is a ruse"; "There is no market." | If it is decided that the FFTF has a role in the national tritium production strategy, and the FFTF site-specific EIS results in a ROD for restart, the DOE is committed to concurrent, early production of medical isotopes. Medical isotopes appear to be a growing component of the United States health care system and, based on a 1997 Frost & Sullivan study, demand may grow by 7 - 15% per year over the coming decade. |

[1] There is some duplication in the number of 2464 commenters, in that certain individuals attended multiple public meetings as well as submitted written comments.

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| 7<br>(16) | Supported concept of tritium production funding as a "bridge" to medical isotope production | DOE is committed to concurrent, early production of medical isotopes if the FFTF site-specific EIS results in a ROD that the FFTF has a role in the national tritium production strategy. The extent of that production will be driven by the research demand and market requirements at the time. Recent market projections are promising for medical isotopes; however, evaluations that have been conducted to date indicate that the near-term revenue stream from the sale of medical isotopes is insufficient to totally offset the costs to start up and operate the FFTF. |
| 8<br>(389)<br>[314 positive]<br>[75 negative] | Safety of the reactor for a new mission (pros and cons) | The FFTF and all reactors are required to be built, tested, and operated to established safety standards. These standards will not change for the new mission. The evaluations performed to date indicate that, even with the proposed changes, the core will operate within limits of the original Final Safety Analysis Report (FSAR). |
| 9<br>(154) | Concerned about possible Columbia River impacts; groundwater | The FFTF is located approximately four miles from the Columbia River. There are no liquid radiological or hazardous effluent discharge pathways from the FFTF to the groundwater or river. |
| 10<br>(120) | Concerned about possible Downwinder impacts | If the FFTF merits further consideration, a full NEPA process will begin that will include extensive formal public involvement. FFTF's history of operation included no releases with impact to the environment or public, and analyses performed to-date indicate that the inherent safety of the facility and barriers to release preclude significant future impact during operation or under foreseeable accident scenarios. |
| 11<br>(182) | Concerned about additional waste generation / treatment / storage / disposal issues | The operation of the FFTF will generate additional waste. However, the quantities are very low and the releases well below any legal limits. The FFTF does not release hazardous or radioactive material to the environment. Operation of the FFTF is expected to generate up to 60 spent fuel assemblies annually. Current plans involve cleaning the components and placing them into interim above-ground dry storage until a national repository is completed. |
| 12<br>(109) | Concerned about transportation of plutonium for fuel and/or targets for tritium. | Analysis has been performed on the safety impact of transporting plutonium and uranium oxides and irradiated tritium targets. Both routine and accident scenarios indicate that there are no significant safety issues associated with the transport of plutonium fuel or fuel material shipped to Hanford or with the transport of irradiated tritium targets from the FFTF at Hanford to Savannah River. |
| 13<br>(2) | Concerned about possible heightened secrecy associated with tritium production, i.e., document classification. | Because a tritium mission would involve some national security issues, certain aspects of the FFTF operation would be of significant value to a nuclear proliferant and will be classified in some way. At this time, only a very small portion of the information dealing with safety or environmental issues is expected to be classified. The safe operating envelope for the facility would not be classified, only the precise amount of tritium produced at any one time. |
| 14<br>(858) | Public involvement during the NEPA process or EIS. | The Department of Energy is still determining whether FFTF should be considered further for restart. During this time, tours and status briefings by the FFTF Standby Project Office have been made upon request. If FFTF merits further consideration, a full NEPA process will include extensive formal public involvement. |

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| 15<br>(17) | Applicable codes and standards for restart; i.e., DOE, NRC, IAEA. | Throughout the design and construction of the FFTF, the siting and design calculations were reviewed by the NRC with subsequent review by the Advisory Committee for Reactor Safeguards. To document their review, the NRC issued a Safety Evaluation Report. Before loading of fuel and any reactor operations, the FFTF would be reviewed to commercial or equivalent standards by a fully independent, qualified safety oversight organization who would insist on a similar level of safety assurance to which commercial reactors are held. FFTF has been placed on the list of IAEA eligible facilities. If it is decided that the FFTF has a role in the national tritium production strategy, and the FFTF site-specific EIS results in a ROD for restart, the DOE may retain FFTF on that list or may follow existing procedures (DOE Order 1270.2B) to delete FFTF from the list of eligible facilities. |
| 16<br>(5)<br>[1 positive]<br>[4 negative] | Privatization (pro and con). | It is premature to commit to any aspect of privatization at this time. Medical isotope processing has been privatized in the past, and the potential exists for privatization of that portion at the FFTF. |
| 17<br>(575)<br>[556 positive]<br>[19 negative] | Plutonium and mixed oxide fuel issues (pro and con). | Since Russia and the United States are attempting to negotiate a joint agreement to dispose of surplus weapons-grade plutonium, there may be potential policy issues if the United States says it is disposing of the plutonium by burning it in a reactor as MOX fuel to produce another material needed for nuclear weapons, i.e., tritium. Current U.S. policy is related to a prohibition of direct use of the surplus plutonium as material for nuclear weapons or for any other nuclear explosive devices. A second point of U.S. policy is the stated desire to not encourage the civilian use of plutonium. The disposition of surplus weapons plutonium in the FFTF would not challenge this policy. A third point of U.S. policy is to work cooperatively with Russia to move forward on the disposition of surplus fissile materials. As an alternative to the use of plutonium-based MOX fuel, the FFTF can use highly enriched uranium (HEU) fuel which minimizes future treaty constraint issues, though the amount of tritium that could be produced by FFTF using HEU would be reduced by approximately 20%. |
| 18<br>(1011) | General comments that support restart. | N/A |
| 19<br>(340) | General comments that oppose restart. | N/A |
| 20<br>(1329) | General comments that support medical isotope production. | N/A |
| 21<br>(129) | Public mistrust of governmental agencies based on years of perceived mismanagement. | N/A |

**Total = 6984**

As with the TPA-specific comments, there are several observations that can be made regarding the input:

- There is significant uncertainty (category 1) associated with the requirement for tritium or the logic for making a decision about a new tritium source when the likelihood is that the stockpile requirement may drop precipitously in the very near future.
- There were many comments supporting the concept of medical isotope production (category 20), but there was also skepticism (category 6) as to whether the medical isotope mission was viable.
- There were concerns expressed (categories 3, 5, 9, 10, and 21) about any new mission at Hanford, with questions surrounding whether that would create new legacies or interfere with the cleanup of old legacies.
- The use of plutonium at FFTF was an issue, not so much from the standpoint of safety (category 8) or materials disposition (category 17) as from storage (category 11) and transportation (category 12).
- There was support (category 14) from both opponents and proponents of FFTF restart for increased public involvement in the form of an initiation of the NEPA process (i.e., preparation of an EIS relative to FFTF's future).

# Actions Taken

As a result of the comments received, the tentative agreement (Enclosure 2) was modified and approved by the three agencies as shown in Enclosure 3. The primary revision to the tentative agreement was as follows:

Rather than delete the existing milestones, the dates were changed to "TBD (To Be Determined)," so that should the Secretary of Energy decide not to use the FFTF in the tritium production strategy and to resume shutdown activities, the revised TPA transition milestones would replicate the original milestones in language and sequence, with the only necessary action being negotiation of specific dates.

In addition to revising the tentative agreement, two other major actions were taken:

- Since many of the comments addressed national policy issues, a summary was provided to the Office of Nuclear Energy, Science and Technology, Department of Energy, Washington, D.C.
- Over the past year, Secretary of Energy, Federico Peña and Governor Gary Locke, State of Washington received over 2000 cards and letters relative to the FFTF. The content of these communications ranged from issues associated with the TPA to the broader issues of the nuclear weapons stockpile, the need for tritium, interest in medical isotopes, generation of additional wastes, bringing plutonium onto the Hanford Site, and other related issues. These cards and letters, submitted by the general public and interest groups, were each reviewed against the same criteria as those comments submitted in response to the public meeting process.

  This additional review, although beyond the extent of the specific request for comments as contained in the public announcements of "Changes Proposed to Hanford's Tri-Party Agreement Fast Flux Test Facility Transition Milestones," was conducted to determine whether any new issues had been raised in that input. After a full review had been made, it was apparent that no new issues had been introduced beyond those identified during the formal public comment process.

# Availability of Information

This summary as well as the two appendices containing the comments and response information from the public meetings and correspondence generated during the public comment period ending February 20, 1998 are available at the three TPA repositories (Seattle, Spokane, and Portland) and at the Public Reading Room in Richland. (listed below)

A copy of the final TPA change and this Comments and Responses document may be obtained by contacting the FFTF Standby Project Office at 509-376-8089 or e-mail at FFTF@rl.gov, or by calling the Hanford Cleanup Line at 800-321-2008. Further information about the FFTF can be found on the FFTF Web site (http://www.fftf.org) or by contacting the FFTF Standby Project Office at 509-376-8089 or e-mail at FFTF@rl.gov. More information about the TPA and Hanford can be found on the Hanford Web site (http://www.hanford.gov) or by calling the Hanford Cleanup Line at 800-321-2008.

## Hanford Public Information Repository Locations

**SEATTLE**
University of Washington
Suzzallo Library
Government Publications Room
(206) 543-4664 ATTN: Eleanor Chase

**RICHLAND**
U.S. Department of Energy Public Reading Room
WSU Consolidated Information Center, Room 101L
2770 University Drive
(509) 376-8583 ATTN: Terri Traub

**SPOKANE**
Gonzaga University
Tri-Party Information Repository
Foley Center
East 502 Boone
(509) 323-3839 ATTN: Connie Scappelli

**PORTLAND**
Portland State University, Branford Price Millar Library
Science and Engineering Floor
Tri-Party Information Repository
934 SW Harrison and Park
(503) 725-3690 ATTN: Michael Bowman

**or call the Hanford Cleanup Toll-free Line: 1-800-321-2008**

# ENCLOSURE 1 - TPA MILESTONES

The following M-81-00 series milestones and targets are impacted by this change action. Under the "Due Date" the proposed change is indicated:

| Milestone | Description | Due Date |
|---|---|---|
| M-81-00 | Complete FFTF Facility Transition and initiate the surveillance and maintenance phase.<br><br>This major milestone will be achieved by completion of all activities necessary to achieve the end point criteria for placing the facility in a safe and stable surveillance and maintenance mode. | ~~12/31/2001~~<br>TBD |
| M-81-00-T01 | Complete Reactor Defueling.<br><br>At the completion of defueling, there will be 236 non-fueled components in the reactor vessel, 113 fueled components in the interim decay storage and 258 fueled components in the fuel storage facility. | 9/30/95<br>Completed 4/19/95 |
| M-81-00-T02 | Complete transfer of Irradiated Fuel to Dry Cask Storage.<br><br>The Irradiated Fuel assemblies and pin containers will be transferred from the interim decay storage vessel and the fuel storage facility to the IEM cell for residual sodium removal, loaded into a core component container, transferred to the reactor service building cask loading station for placement into an interim storage cask for dry storage, and transferred to the interim storage area located in the northeast corner to the FFTF complex. | ~~10/31/98~~<br>TBD |
| M-81-00-T03 | Complete transfer of unirradiated fuel to the Plutonium Finishing Plant.<br><br>Thirty two unirradiated fuel assemblies presently stored in the interim decay storage vessel will be transferred to the IEM cell for washing and drying, loaded into existing approved shipping containers, and transferred to an appropriate storage area in the Plutonium Finishing Plant. | ~~10/31/98~~<br>TBD |
| M-81-00-T04 | Complete transfer of special fuel to the Idaho National Engineering Laboratory for consolidated storage.<br><br>Sodium-bonded irradiated metal and carbide fuel pins from assemblies cleaned and disassembled in the IEM Cell will be loaded into existing, approved shipping casks, and transported to the Idaho National Engineering Laboratory in Idaho Falls, Idaho, for consolidated storage. One unirradiated metal fuel assembly will also be dispositioned in a similar manner. | ~~10/31/98~~<br>TBD |
| M-81-00-T05 | Complete auxiliary systems deactivation.<br><br>A major portion of the plant auxiliary systems are required to support hot sodium circulation prior to draining the sodium. As these systems, and the balance of plant systems, become available for shutdown, they will be deactivated to a safe, stable condition. | ~~3/21/2001~~<br>TBD |

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| M-81-01 | Initiate sodium storage facility construction.<br><br>This milestone will be achieved when the construction contractor is issued the notice to proceed with construction by the contracting officer. | 2/28/97<br>completed<br>10/09/95 |
| M-81-02 | Complete sodium storage facility startup.<br><br>This milestone will be achieved by completion of the sodium storage facility startup activities which include final testing of the mechanical and electrical systems and confirmation that the facility is ready to receive sodium from FFTF. Construction of the new facility closely coupled to the FFTF complex is required to support sodium drain operations. This new facility will be designed, constructed and operated in compliance with RCRA and WAC 173-303 storage requirements. The facility will provide storage capacity for the 260,000 gallons of FFTF metallic sodium coolant. | 7/31/98<br>completed<br>01/97 |
| M-81-02-T01 | Submit final sodium disposition evaluation report/decision point.<br><br>Under this target DOE will submit its final report following evaluation of the acceptable sodium product form for the TWRS Tank Sludge Pretreatment Process (i.e., caustic washing). This evaluation will be conducted in concert with TWRS TPA Milestone M-50-03 (due date March 31, 1998). This Hanford Site Radioactive (FFTF, Hallam, and Sodium reaction experiment) sodium evaluation will address other conversion options for disposal of the sodium if the product use for TWRS is not viable, regardless of which option is selected, a new sodium reaction facility will be constructed adjacent to the sodium storage facility to convert the bulk metallic sodium to the appropriate chemical form. This report will include a decision on the final disposition of the Hanford Site Radioactive Sodium (e.g., disposal or reuse). Appropriate milestones and target dates will be established for construction and operation of the sodium reaction facility based on the option selected. | ~~6/30/98~~<br>TBD |
| M-81-03 | Submit FFTF End Point Criteria Document.<br><br>A document identifying the end point criteria necessary to place the FFTF in a safe and stable configuration will be developed. This document will be provided to EPA and Ecology for review, and approval for the hazardous substances proposed to remain at the facility. | ~~12/31/98~~<br>TBD |
| M-81-04 | Complete FFTF Sodium Drain.<br><br>This milestone will be complete when all of the sodium coolant has been drained from the plant to the new sodium storage facility to the maximum practical extent. The sodium residuals that remain are integral to the system, are solid in form, and adhere to the surfaces to the system components. The residuals will be maintained under an inert gas blanket to minimize potential reactions during the long-term surveillance and maintenance phase. During final disposition of the facility, any regulated wastes generated from the cleaning or dismantlement of these systems, will be appropriately managed. | ~~3/31/2000~~<br>TBD |

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| M-81-04-T01 | Complete reactor and heat transport system sodium drain.<br><br>The reactor and primary and secondary heat transport system sodium coolant and supporting sodium systems will be maintained in a safe configuration, molten and circulating until the fuel is removed from the FFTF Reactor vessel and the sodium storage facility is operational. The sodium will then be drained to the tanks located in the sodium storage facility and allowed to freeze. | ~~4/30/98~~<br>TBD |
| M-81-04-T02 | Complete interim decay storage vessel and fuel storage facility sodium drain.<br><br>The interim decay storage vessel and fuel storage facility sodium will be maintained in a molten state until the fuel is removed from these storage locations. The sodium will then be drained to the tanks located in the sodium storage facility and allowed to freeze. | ~~12/31/98~~<br>TBD |
| M-81-05 | Submit FFTF Surveillance and Maintenance Plan.<br><br>A plan describing the S&M phase will be developed. This plan will be provided to EPA and Ecology for review, and approval for the hazardous substances proposed to remain at the facility. This plan will include documentation of lists of hazardous substances, including dangerous waste that remain in the FFTF Facility upon completion of Phase I activities because the hazardous substance: (1) contains non-dangerous waste components that are highly radioactive, (2) is part of the plant structure and/or (3) is an intact piece(s) of equipment. | ~~6/30/2001~~<br>TBD |
| M-81-06 | Complete PCB Transformer disposal.<br><br>The nineteen Polychlorinated Biphenyl (PCB) electrical transformers at the FFTF will be disposed of after the transformers are removed from service. Twelve of the nineteen transformers, will be drained, flushed and removed from FFTF within thirty days after being removed from service as specified in 40 CFR 761. Seven of the transformers, which are in areas that are difficult to obtain access, will be drained, flushed and removed from FFTF within nine months of cessation of service to ensure their disposal within one year from the start of the storage. Cessation of service constitutes the start of the storage, and 40 CFR 761 limits the storage and subsequent disposal to a one-year period. | ~~9/30/2001~~<br>TBD |
| The following M-20-29A interim milestone due date would also be modified by this action. The parties agreed to revisit and reestablish a due date, "To Be Determined" (TBD), as appropriate should FFTF transition resume: | | |
| M-20-29A | Submit sodium storage facility and sodium reaction facility closure plan or request for procedural closure as defined in section 6.3.3 of this Tri-Party Agreement to EPA and Ecology.<br><br>A potential use for the sodium as feedstock in the TWRS Program has been identified and will be evaluated as discussed pursuant to M-81-02-T01. The sodium will be stored as product material in the sodium storage facility until the final disposition of the material is determined. FFTF is proceeding on the basis of providing RCRA and WAC 173-303 compliant storage for the sodium. The sodium reaction facility is included in the permit request, even though the sodium reaction facility availability and regulatory status will be determined by the 1998 evaluation/decision point. If the sodium use for the TWRS is confirmed, a request for procedural closure as defined in section 6.3.3 of the Tri-Party Agreement will be submitted for the sodium storage facility and sodium reaction facility units. If the sodium is determined to be a waste, a closure plan will be submitted for the two units. | ~~12/31/99~~<br>TBD |

# ENCLOSURE 2 - TENTATIVE AGREEMENT

On October 4, 1997 the DOE Richland Operations Office (RL), State of Washington Department of Ecology, and U.S. Environmental Protection Agency signed the following tentative agreement:

HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER
NEGOTIATIONS REGARDING THE FAST FLUX TEST FACILITY

In January 1997, the Secretary of the U.S. Department of Energy (DOE) issued a decision to maintain Hanford's Fast Flux Test Facility (FFTF) in a standby mode pending a decision (to be made by December 1998) on whether the Facility will be utilized in the national tritium production strategy. In April, 1997 the DOE Richland Operations Office (RL), State of Washington Department of Ecology (Ecology), and U.S. Environmental Protection Agency (EPA) staff personnel, hereinafter the Parties, agreed to conduct negotiations for the purpose of revising *Hanford Federal Facility Agreement and Consent Order* (Agreement) milestones for the FFTF. These negotiations have resulted in this tentative agreement to delete existing M-81 series milestones and target dates, and to place the M-20-29A milestone in a "To Be Determined" (TBD) status pending the Secretary of Energy's decision. Should environmental compliance issues arise during this interim period of consideration, they will be addressed as part of Ecology's sitewide compliance assurance program.

This tentative agreement will be submitted for tribal and public review and comment for a 45 day period. Copies of this agreement will also be available for review at the parties public information repositories. The comment period will run from approximately November 8, 1997 to December 23, 1997. Prior to final agreement, a response to comments document will be developed and the parties will make appropriate revisions to the agreement before final signature. The parties anticipate that final approval will take place by January 23, 1998.

The parties further agree that to minimize additional delay in the event they fail to agree on any changes as the result of the comment period, all unresolved matters shall be referred to the Agreement dispute resolution process beginning at the Inter Agency Management Integration Team (IAMIT) level. The parties shall attempt to resolve the dispute(s) as provided for in Agreement paragraph(s) 30.

The parties also agree, that should the Secretary's decision be not to use the FFTF in the tritium production strategy and to resume shutdown activities, the original M-81 milestone language and structure deleted by this proposed action will be used as the starting point for new TPA transition milestone negotiations. The parties commit to initiate negotiations on FFTF transition within 90 days of a decision not to use FFTF as a production facility. It is the intent of DOE that the Office of Nuclear Energy, Science and Technology will establish and maintain the management and funding responsibility for FFTF starting in Fiscal Year 1999 through shutdown.

# ENCLOSURE 3 - FINAL AGREEMENT

In 1998, the Department of Energy Richland Operations Office, State of Washington Department of Ecology, and U.S. Environmental Protection Agency signed the following agreement:

HANFORD FEDERAL FACILITY AGREEMENT AND CONSENT ORDER
NEGOTIATIONS REGARDING THE FAST FLUX TEST FACILITY

In January 1997, the Secretary of the U.S. Department of Energy (DOE) issued a decision to maintain Hanford's Fast Flux Test Facility (FFTF) in a standby mode pending a decision (to be made by December 1998) on whether the facility will be used in the national tritium production strategy. In April 1997 the DOE Richland Operations Office (RL), State of Washington Department of Ecology (Ecology), and U.S. Environmental Protection Agency (EPA) staff personnel, hereinafter the Parties, agreed to conduct negotiations for the purpose of revising *Hanford Federal Facility Agreement and Consent Order* (Agreement) milestones for the FFTF. These negotiations have resulted in this final Agreement to place the existing M-81 series milestones and target dates, as well as the M-20-29A milestone, in a "To Be Determined" (TBD) status pending the Secretary of Energy's decision. Should environmental compliance issues arise during this interim period of consideration, they will be addressed as part of Ecology's sitewide compliance assurance program.

The Parties also agree that, should the Secretary's decision be to not use the FFTF in the tritium production strategy and to resume shutdown activities, the original M-81 and M-20-29A milestone language and sequence will be used and new dates established via new TPA transition milestone negotiations. The Parties commit to initiate those negotiations on FFTF transition within 90 days of a decision by the Department of Energy not to use FFTF as a production facility. It is the intent of the DOE that the Office of Nuclear Energy, Science and Technology will establish and maintain the management and funding responsibility for FFTF starting in fiscal year 1999. Should the Department of Energy decide to initiate the National Environmental Policy Act (NEPA) process considering the FFTF for tritium and/or medical isotope production, and that process results in a Record of Decision (ROD) for restart, then the M-81 and M-20-29A milestones will be deleted.