

AR TARGET SHEET

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TITLE: Comment and Response Document
To Proposed TPA Modifications
Regarding Deactivation of FFTF

**Comment and Response Document
to the
Proposed Tri-Party Agreement
Modifications
Regarding the Deactivation
(Shutdown) of the
U.S. Department of Energy's
Fast Flux Test Facility**

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

April 2003

**Comment and Response Document
to the
Proposed Tri-Party Agreement
Modifications
Regarding the Deactivation
(Shutdown) of the
U.S. Department of Energy's
Fast Flux Test Facility**

April 18, 2003

Dear Interested Citizen:

Thank you for your comments to the draft Fast Flux Test Facility (FFTF) Tri-Party Agreement (TPA) milestone change package. The U.S. Department of Energy (DOE), the Washington State Department of Ecology (Ecology), and the U.S. Environmental Protection Agency (EPA) appreciate your concern and input.

After a review of the public comments received, no changes were made to the draft change package. We believe that the final agreement described here is the best way to address the FFTF deactivation by DOE.

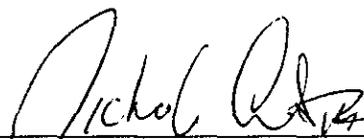
Enclosed are the *Comment and Response* document and the *Final Change Package*. A copy of the Appendices, including individual comments, can be viewed at the Public Information Repositories identified in the *Comment and Response Document*. For more information, please write or telephone one of the following.

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Sincerely,



Oliver Farabee
FFTF Division Director
U.S. Department of Energy
Richland Operations Office



Nicholas Ceto
Hanford Project Manager
U.S. Environmental Protection Agency



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Washington State Department of Ecology

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LIST OF TERMS

AEC	Atomic Energy Act
DOE	U.S. Department of Energy
Ecology	Washington State Department of Ecology
EA	Environmental Assessment
EIS	Environmental Impact Statement
EM	Environmental Management
EPA	U.S. Environmental Protection Agency
FFTF	Fast Flux Test Facility
HFFACO	Hanford Federal Facility Agreement and Consent Order (<i>Tri-Party Agreement</i>)
LMFBR	Liquid-Metal Fast Breeder Reactor
NI-PEIS	Nuclear Infrastructure Programmatic Environmental Impact Statement
NEPA	National Environmental Policy Act
RCRA	Resource Conservation and Recovery Act
R&D	Research and Development
RL	DOE Richland Operations Office
ROD	Record of Decision
S&M	Surveillance and Maintenance
TBD	"To Be Determined"
TPA	Tri-Party Agreement (<i>Hanford Federal Facility Agreement and Consent Order</i>)

**COMMENTS AND RESPONSES
TO THE TENTATIVE AGREEMENT
REGARDING THE FAST FLUX TEST FACILITY**

1.0 COMMENTS AND RESPONSES

1.1 Introduction

In April 2002 the U.S. Department of Energy (DOE) Richland Operations Office (RL), Washington State 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 or TPA) milestones for the Fast Flux Test Facility (FFTF).

A formal public comment period was held from August 28, 2002, until October 14, 2002. Ecology, as the lead regulatory agency for the M-81 series milestones and all facility transition projects at Hanford, and DOE sponsored and participated in a series of four public meetings held in late September 2002 in Yakima and Seattle, Washington, and early October 2002 in Portland, Oregon, and Richland, Washington. Due to technical failures, the audiotapes from the Yakima public meeting were indecipherable. Each commenter who spoke at this meeting received a letter notifying them of this problem and outlining a process to recreate and resubmit their comments by phone (1-800 number) or in writing. For those individuals, the comment period was extended to midnight October 28, 2002.

In this report, the DOE, Ecology, and EPA present the comment categories and generic responses (Section 1.5). A total of 745 individuals and groups (Appendix A) commented on the draft change package. The agencies identified a total of 1,884 comments. Of those comments, 113 were determined by the agencies to be applicable to the draft FFTF TPA change package. These comments were sorted into 14 categories. These comment categories, number of comments per category and generic responses are presented in Table 1. Based on these comments, the agencies made no changes to the draft change request. The final change request signed _____, 2003, is provided as Enclosure 1. In summary, that final change request addresses the following major deactivation activities:

- begin to drain the sodium from the reactor heat transport system secondary loop by June 2003
- complete reactor and heat transport system sodium drain by June 2005
- complete fuel wash, offload, and storage by March 2009
- complete sodium drain by September 2009
- complete shutdown by February 2011.

The majority of the comments (1,771) involved issues that were beyond the scope of the proposed change package. Those comments were sorted into 16 generic categories. These generic categories and responses are presented in Table 2. Appendix C indexes each comment

by in-scope and/or out-of-scope categories. Section 1.7 of this report describes where copies of the appendices can be reviewed.

1.2 Background

The FFTF is a 400-megawatt thermal, liquid-metal, sodium-cooled nuclear test reactor that operated from 1982 until 1992 to test advanced fuels and materials in support of the national Liquid-Metal Fast Breeder Reactor (LMFBR) 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. After the LMFBR program ended, DOE determined that due to the absence of missions for the FFTF, it should be permanently shutdown and deactivated. In May 1995, after preparing a National Environmental Policy Act (NEPA) Environmental Assessment (DOE/EA-0993), DOE issued a Finding of No Significant Impact (FONSI) for the shutdown and deactivation of the FFTF.

In January 1997, the Secretary issued a Departmental decision to maintain FFTF in a standby condition while an evaluation was conducted of any future role the facility might have in DOE's tritium production strategy. On December 22, 1998, the Secretary announced that the FFTF would not play a role in tritium production and a decision on any future missions would be made by Spring 1999.

On August 18, 1999, the Secretary decided to initiate under NEPA a Nuclear Infrastructure Programmatic Environmental Impact Statement (NI-PEIS, DOE/EIS-0310, December 2000). This NI-PEIS evaluated the potential impacts associated with accomplishing expanded nuclear energy research and development and isotope production missions in the United States, including the role of the FFTF. As a consequence of FFTF being placed in standby, facility transition work was limited to activities that would not preclude reactor restart, and the TPA milestones were no longer achievable. In recognition of this condition, the parties proposed in 1998 that TPA M-81-00 series milestones and target dates be deleted. As the result of comments received during the public review and comment period on those proposed changes, it was revised to place the milestones "in abeyance" (temporary suspension) until the Secretary issued a final decision whether or not to restart FFTF. This TPA Change Number M-81-98-01 was subsequently approved on August 4, 1999.

In January 2001, the Record of Decision (ROD) for the NI-PEIS was issued, which reaffirmed the decision to permanently deactivate the FFTF.

On April 25, 2001, the Secretary decided to suspend for 90 days the decision to permanently deactivate the FFTF, as indicated in the ROD, while alternate uses of the facility were further evaluated. In late April 2001, the Secretary chartered Michael Holland, Manager of the DOE Brookhaven Area Office, to lead a 90-day review of the key factors related to the decision to permanently deactivate the FFTF.

On August 1, 2001, the Secretary announced in a DOE Press Release, "...Completion of 90-day Fast Flux Test Facility Review..." and "...(DOE) will begin a 60-day review of one expression

of interest in using the FFTF as a commercial production facility...". James Owendoff, Principal Deputy Assistant Secretary for the DOE Office of Environmental Management, was asked to lead a working group to evaluate the viability of the Advanced Nuclear and Medical Systems (ANMS) business approach and legal options available to the Department for the lease or sale of this DOE property.

On December 19, 2001, DOE issued a news release announcing that Secretary Spencer Abraham had concluded that "restart of the FFTF is impracticable and that the department will proceed with the deactivation of the facility." As a result of this decision, the agencies entered into negotiations to determine whether to reinstate the existing milestones with a day-for-day delay or establish a new schedule. The result of the negotiations was a draft TPA change package establishing new milestones for deactivation of the FFTF. Based on the comments received during the public comment period on the draft change package, the agencies have determined that no changes to the proposed change package are needed, and deactivation of the facility is being resumed.

1.3 TPA Change Control Public Involvement Process

As described in the Community Relations Plan for the TPA (January 2002), a significant change to the TPA, such as this one, initiates a process for public involvement. The public involvement process for the draft FFTF TPA change package is described below.

(1) Agencies Announce 45-Day Public Comment Period

A formal public comment period was held from August 28, 2002, until October 14, 2002. Ecology, as the lead regulatory agency for the M-81 series of milestones and all facility transition projects at Hanford, and DOE sponsored and participated in a series of four public meetings held in late September 2002 in Yakima and Seattle, Washington, and early October 2002 in Portland, Oregon, and Richland, Washington. Due to technical failures, the audiotapes recorded at the Yakima public meeting were indecipherable. Each commenter who spoke at this meeting received a letter notifying them of this problem and outlining a process to recreate and resubmit their comments by phone (1-800 number) or in writing. For those individuals, the comment period was extended to midnight October 28, 2002.

(2) Agencies Decide Whether to Schedule Public Meetings

Four public meetings were held in Yakima, Washington; Seattle, Washington; Portland, Oregon; and Richland, Washington. Those meetings are described in Section 1.4 and the transcripts are provided in Appendix B.

(3) Agencies Consider and Respond to Public Comments

This comment and response document was prepared by the Agencies and captures the comments received during the public comment process. Based on the comments, the agencies agreed that no changes would be made to the draft change package.

(4) Final TPA Change and Comments and Responses Document Distributed

As described in Section 1.7, this Comment and Response document, as well as, the three appendices containing the comments from the public meetings and correspondence generated during the public comment period, is available at each of the four Public Information Repositories. Section 1.7 provides the location of each repository and describes how individuals may obtain a hard or electronic copy of the final TPA change and the Comments and Responses document.

1.4 Public Meetings

Four public meetings were held in September and October 2002, throughout the Pacific Northwest region. The dates, locations, and number of attendees (total of 226) at each meeting are listed below.

Date	Location	Attendees
September 24, 2002	Yakima, Washington	49
September 26, 2002	Seattle, Washington	56
October 9, 2002	Portland, Oregon	28
October 10, 2002	Richland, Washington	93

Advertisements were placed in the local newspapers before each meeting. The meetings were held from 7:00 to 9:30 p.m. Attendees could provide oral and/or written comment at each meeting.

1.5 Comments and Generic Responses

The agencies received 1,884 oral, electronic, and/or written comments from 745¹ individuals and organizations. Of the 1,884 comments received, 113 or 6% directly and specifically addressed the TPA change package. At each of the public meetings, while commenters were asked to address the tentative agreement, many addressed the need to restart FFTF and the benefits (i.e., medical isotope production and other uses) associated with such a restart.

Of the 113 comments relevant to the TPA change package, 52 of those comments (or 46%) supported the change package and the schedule for shutdown of the FFTF; while 38 of those comments (or 34%) opposed the change package and the schedule for shutdown of the FFTF.

¹ There is some duplication in the number of 745 commenters, in that certain individuals attended multiple public meetings as well as submitted written comments.

The written and electronic comments, and transcripts of comments received from the public meetings are contained in Appendix B. Inputs were reviewed and individually indexed by in-scope and out-of-scope categories (both shown in Appendix C):

Table 1 summarizes the number of comments by comment categories specifically related to the proposed draft TPA change package and provides generic responses. Comments were not “force-fit” into a small number of options. If an input differed from the categories, a new category was created.

Table 1. Comments to the Draft TPA Change Package

Category (# Comments)	Comment/Response
1 (25)	<i>Comment 1: Opposed to accelerated shutdown/accelerated milestones</i>
2 (2)	<i>Comment 2: Opposed to the sodlum drain</i>
3 (24)	<i>Comment 3: Support shutdown/deactivation</i>
4 (6)	<p><i>Comment 4: Support the change request schedule</i></p> <p>Response to Comments 1 through 4: The DOE has revisited and reevaluated FFTF decisions associated with the Nuclear Infrastructure Programmatic Environmental Impact Statement (NI-PEIS, DOE/EIA-0310). This NI-PEIS included the evaluation of FFTF as a potential irradiation services facility for medical and industrial isotope production, plutonium-238 production for NASA space missions, and nuclear research and development (R&D). In 2001, the DOE issued the Record of Decision (ROD) for this NI-PEIS, which reaffirmed the decision to permanently deactivate the FFTF because existing DOE facilities would be able to provide irradiation services for the aforementioned, proposed NI-PEIS missions. In 2001, the DOE suspended this FFTF decision in the ROD to allow a review to be conducted of all of the key factors related to this decision. As a result of the review and a follow-on review of proposals, the DOE issued a news release on December 19, 2001, announcing that Secretary Spencer Abraham had concluded that “restart of the FFTF is impracticable and that the department will proceed with the deactivation of the facility.” As a result of this decision, the agencies negotiated a new shutdown schedule, and deactivation of the facility is being resumed. The proposed schedule to feasibly complete the FFTF deactivation activities was developed consistent with expected achievable funding.</p>
5 (15)	<i>Comment 5: Support deactivating sooner (e.g., speed up accelerated cleanup plan, delay is costly, find money, do it faster)</i>
6 (7)	<p><i>Comment 6: Opposed to the deactivation schedule (e.g., defer to end of operational lifetime of reactor)</i></p> <p>Response to Comments 5 and 6: The proposed schedule to feasibly complete the FFTF deactivation activities was developed consistent with expected achievable funding.</p>

Category (# Comments)	Comment/Response
7 (8)	<p>Comment 7: Want milestones to reflect the 1995 TPA language</p> <p>Response to Comment 7: As a consequence of FFTF being placed in standby in January 1997, facility transition work was limited to activities that would not preclude reactor restart, and the 1995 TPA deactivation milestones in place at that time were no longer achievable. This TPA Change Request (M-81-02-01) provides deactivation milestones that are considered technically achievable and reflect the technical ability of DOE to perform deactivation activities.</p>
8 (7)	<p>Comment 8: Support FFTF shutdown and putting funds toward Hanford cleanup</p>
9 (5)	<p>Comment 9: Shutdown funds should be returned to Hanford cleanup</p>
10 (4)	<p>Comment 10: FFTF should be deactivated with Nuclear Energy (NE) funds</p>
11 (3)	<p>Comment 11: Support the promise that cleanup money would not be used to deactivate FFTF</p>
12 (1)	<p>Comment 12: Support adding language that funds be made available for higher priority EM activities</p> <p>Response to Comments 8 through 12: The FFTF is a part of the overall Hanford cleanup mission. For Fiscal Year (FY) 2003, the FFTF Project is managed by the Office of Environmental Management (EM) but is funded by the Office of Nuclear Energy (NE). In FY 2004, DOE has proposed that EM provide funding and management for the FFTF deactivation. Congress has and it is expected they will continue in the future to appropriate funding for FFTF separate from other Hanford cleanup activities. The intent of the TPA agencies is that this project not impact other cleanup activities.</p>
13 (4)	<p>Comment 13: Opposed to the TPA changes (e.g., do not support accelerated TPA milestones, not compliant with NEPA, do not support shutdown milestones)</p> <p>Response to Comment 13: Following a complete public process in 1998, the TPA FFTF deactivation milestones were placed "in abeyance" by TPA Change Request M-81-98-01. As noted in Category 1, the determination has been made that deactivation of the FFTF is to proceed. TPA Change Request M-81-02-01 provides deactivation milestones that reflect the current projected schedule.</p>
14 (2)	<p>Comment 14: The Plan (TPA) should include deactivation and decommissioning</p> <p>Response to Comment 14: The proposed, draft milestones and schedule in this change package only reflect planned completion of FFTF deactivation work pursuant to the facility transition phase, per Tri-Party Agreement, Section 8.</p>
Total = 113 comments	

Table 2 summarizes the number of comments by comment categories identified by the agencies to be outside the scope of the draft TPA change package and provides generic responses. Again, there was no attempt to "forcefit" 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.

There were 1,771 comments (94%) that addressed issues outside the scope of this draft change package. Fifty-one percent of the comments were opposed to the facility's shutdown or destruction (344 comments), opposed to the facility's accelerated destruction (311 comments), and/or opposed to or wanted to stop the facility's decommissioning (251 comments). Included in these numbers are 248 signatures from two petitions opposed to the shutdown and decommissioning of the FFTF.

Thirty-eight percent of the out-of-scope comments identified benefits associated with restarting FFTF (over 50% of the benefits cited related to medical isotopes).

Table 2. Comments Out-of-Scope to the Draft TPA Change Package

Category (# Comments)	Comment/Response
1 (674)	Comment 1: Benefits associated with FFTF (e.g., produce medical isotopes, save lives, scientific research, produce Pu²³⁸, irradiate food)
2 (344)	Comment 2: Did not want the reactor shutdown or destroyed
3 (311)	Comment 3: Oppose the accelerated destruction of FFTF
4 (251)	Comment 4: Oppose or stop decommissioning of FFTF
5 (48)	Comment 5: Role of FFTF to fight cancer, personal experiences related to cancer
6 (19)	Comment 6: PEIS as inadequate/incomplete
7 (18)	Comment 7: Transfer FFTF to community re-use program
8 (16)	Comment 8: Other isotope issues (e.g., sufficient supply of isotopes, accelerator can produce isotopes, FFTF cannot produce needed isotopes)
9 (14)	Comment 9: Support restart of FFTF
10 (8)	Comment 10: FFTF is a national treasure
11 (7)	Comment 11: Cleanup Hanford (e.g., cleanup is job #1, do not want to pay for FFTF when struggling to cleanup Hanford)
	Response to Comments 1 through 11: The DOE has revisited and reevaluated decisions associated with the Nuclear Infrastructure Programmatic Environmental Impact Statement (NI-PEIS, DOE/EIA-0310). This NI-PEIS included the evaluation of FFTF as a potential irradiation

Category (# Comments)	Comment/Response
	<p>services facility for medical and industrial isotope production, plutonium-238 production for NASA space missions, and nuclear research and development (R&D). In 2001, the DOE issued the Record of Decision (ROD) for this NI-PEIS, which reaffirmed the decision to permanently deactivate the FFTF because existing DOE facilities would be able to provide irradiation services for the aforementioned, proposed NI-PEIS missions. In 2001, the DOE suspended this FFTF decision in the ROD to allow two studies to be conducted of all of the key factors related to this decision. As a result of these studies, the DOE decided on December 19, 2001, that the restart of FFTF was impracticable and that its deactivation would proceed.</p>
<p>12 (11)</p>	<p>Comment 12: <i>Liabilities associated with FFTF (e.g., causes cancer, produces more waste, slows Hanford cleanup (e.g., costs too much money), will produce more liquid waste, produce further poison)</i></p> <p>Response to Comment 12: No known evidence exists showing that FFTF directly or indirectly contributed to increased cancer rates during the 10-year period of the FFTF operation (1982-1992), or since that time during standby and deactivation. Some non-hazardous wastewater and solid waste, and hazardous and/or radioactive materials and waste which have been and will continue to be generated from FFTF deactivation activities would continue to be managed in accordance with applicable federal and state regulations. However, none of these materials and waste streams are anticipated to be generated in substantial quantity so as to impact (e.g., delay) Hanford cleanup.</p>
<p>13 (12)</p>	<p>Comment 13: <i>National security issues (e.g., could impact national security, will enhance Homeland security, major terrorist risk)</i></p> <p>Response to Comment 13: To date, no known evidence exists showing that FFTF poses a major terrorist risk, either during the 10-year period of FFTF operation (1982-1992) or since that time during standby and beginning of deactivation. Safeguards and security measures for FFTF have been and continue to be in place in accordance with applicable laws, regulations, and DOE orders.</p>
<p>14 (8)</p>	<p>Comment 14: <i>Atomic Energy Act (AEC) requires DOE to produce isotopes</i></p> <p>Response to Comment 14: Under the authority of the Atomic Energy Act of 1954, as amended, DOE is responsible for ensuring the availability of isotopes for medical, industrial, and research applications; meeting the nuclear material needs of other Federal agencies; and undertaking research and development activities related to development of nuclear power for civilian use. The purpose of the NI-PEIS was to determine and evaluate the potential environmental impacts resulting from DOE accomplishing these missions using all of their reasonable existing and new resources. In the NI-PEIS, the FFTF was considered and evaluated as an alternative irradiation services facility. In the NI-PEIS ROD, DOE ruled out the use of FFTF and reaffirmed their decision for its permanent deactivation, because it expected its current nuclear infrastructure would satisfy short-term irradiation services requirements for ensuring the availability of isotopes for the above missions.</p>
<p>15 (6)</p>	<p>Comment 15: <i>Regulatory issues (CERCLA, NEPA) (e.g., need CERCLA decision on final end state, need SEIS, CERCLA needed for both D&D)</i></p> <p>Response to Comment 15: FFTF deactivation activities have been and will continue to be conducted in accordance with applicable regulations.</p>
<p>16 (24)</p>	<p>Comment 16: <i>Other (e.g., hasty decision with poor planning, hold national hearings, national health issue, commercialize the reactor, eliminate nuclear war)</i></p> <p>Response to Comment 16: These comments are not applicable to FFTF and/or the FFTF TPA Change Package.</p>
<p>Total = 1,771</p>	

1.6 Actions Taken

As a result of the comments received, the draft change package was not modified. The final change package is shown in Enclosure 1.

1.7 Availability of Information

This summary as well as the three appendices containing the comments and response information from the public meetings and correspondence generated during the public comment period are available at the four Public Information Repositories (Seattle, Spokane, Portland, and Richland).

Seattle

University of Washington
Suzzallo Library
Government Publications Room
Mail Stop FM-25
Seattle, WA 98195
(206) 543-4664
Attention: Eleanor Chase

Spokane

Gonzaga University
Foley Center
E. 502 Boone
Spokane, WA 99258
(509) 323-6548
Attention: Sarah Nelson

Portland

Portland State University
Bradford Price Millar Library
SW Harrison and Park
P.O. Box 1151
Portland, OR 97207
(503) 725-3690
Attention: Michael Bowman

Richland

Washington State University/Tri-Cities
DOE Public Reading Room
100 Sprout Road
Room 130
Richland, WA 99352
(509) 372-7442
Attention: Janice Parthree

A copy of the final TPA change package and this Comment and Response document may be obtained by calling the Hanford Cleanup Line at 800-321-2008 or electronic copies may be obtained by performing a "Simple Search" at <http://www2.hanford.gov/ARPIR>. For this Comment and Response document search for "*Comment and Response Document to the Proposed Tri-Party Agreement Modifications Regarding the Deactivation (Shutdown) of the U.S. Department of Energy's Fast Flux Test Facility*" and for the TPA Change Package search for "M-81-02-01." 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.

Enclosure 1. Final TPA Change Request

Hanford Federal Facility Agreement and Consent Order

**Shutdown of the
U. S. Department of Energy's (DOE's)
Fast Flux Test Facility (FFTF)**

**Modification of HFFACO FFTF Transition Milestones
and
Targets (M-81-00 Series)
and
Related HFFACO Milestone M-20-29A**

Description/Justification of Change (Continued)
M-81-02-01

FFTF was previously proceeding with transition in conjunction with Agreement Change number M-81-94-01. As a result of these activities major FFTF transition activities completed are 1) defueling the reactor vessel to the fuel storage and interim decay storage vessels, 2) design, procurement and receipt of 30 Interim Storage Casks (ISCs), 3) washing residual sodium and storing in above ground dry storage (ISCs) all the spent fuel with no potential future use (126 assemblies), 4) design and construction of the Sodium Storage Facility (SSF), and 5) deactivation of 23 of the approximately 100 plant operating systems.

In January 1997, the Secretary of Energy issued a Departmental decision to maintain FFTF in a standby condition while an evaluation was conducted of any future missions for the facility. On August 18, 1999, the Secretary decided to initiate the preparation of a National Environmental Policy Act (NEPA) Programmatic Environmental Impact Statement (PEIS) which included an evaluation of the potential impacts associated with restarting the FFTF as a nuclear science research and irradiation services user facility. In December 2000, the "Programmatic Environmental Impact Statement for Accomplishing Expanded Civilian Nuclear Energy Research and Development and Isotope Production Missions in the United States, Including the Role of the Fast Flux Test Facility" was published (DOE/EIS-0310, December 2000). The corresponding Record of Decision (ROD) was issued in the Federal Register on January 26, 2001, which included a decision that the FFTF will be permanently deactivated. On April 25, 2001, the Secretary of Energy announced a suspension of the decision to permanently deactivate FFTF to allow for additional evaluation. Following that review (on December 19, 2001) the Secretary of Energy confirmed the decision to decommission the reactor and announced that the Department was proceeding with deactivation of the facility.

As a result of FFTF being placed in standby, uncompleted activities associated with Agreement M-81-94-01 were placed in abeyance by Agreement Change M-81-98-01. As a result of the Secretary's decision to shutdown the reactor, this Agreement Change establishes revised FFTF transition milestones and targets.

Throughout the FFTF transition project, opportunities to implement waste minimization activities will continue to be assessed and implemented to the extent possible. Waste minimization activities during the project include the recycle, reuse or return to the original vendor of process fluids from the plant systems and auxiliary equipment (i.e., sodium, ethylene glycol, fuel oil, mobiltherm oil, and cooling tower chemicals). The following descriptive text documents actions necessary for the compliant management of PCB contaminated transformer oils.

Management of polychlorinated biphenyl (PCB) bearing transformers:

FFTF's fourteen Polychlorinated Biphenyl (PCB) electrical transformers will be disposed of following their removal from service as reactor transition proceeds. Management and disposal shall be in accordance with the requirements of the *Toxic Substances Control Act (TSCA)* and its implementing requirements (40 CFR 761). Seven of FFTF's fourteen transformers will be drained, flushed and removed from FFTF within (30) days after being removed from service. Seven of the transformers, which are in areas difficult to obtain access to, will be drained, flushed, and removed from FFTF within nine (9) months of cessation of service to ensure their disposal within one year from start of storage. Cessation of service constitutes start of storage. 40 CFR 761 limits this storage and subsequent disposal to a one year period.

Description/Justification of Change (Continued)
M-81-02-01

The milestones and targets identified in the following text document Agreement actions necessary to complete FFTF transition.

The following Agreement M-81-00A series milestones and target dates (reproduced below) replace the existing M-81-00 series, and are established on approval of this M-81-02-01 change request.

Milestone	Description	Due Date
M-81-00A	Complete FFTF Facility Transition and initiate the surveillance and maintenance phase. Completion of FFTF transition will include, but is not limited to the completion of: 1) dry cask storage of irradiated fuel, 2) dry storage of unirradiated and sodium bonded fuel, 3) sodium drain and storage 4) deactivation of the auxiliary plant systems. Work under this major milestone will be achieved by completing all activities necessary to achieve the end point criteria for placing the facility in a safe and stable surveillance and maintenance configuration.	2/28/2011
M-81-00-T01	Complete Reactor Defueling. 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.	9/30/1995 Completed 4/19/1995
M-81-00A-T02 ¹	Complete transfer of unirradiated fuel to secure onsite storage. Thirty two unirradiated fuel assemblies presently stored in the interim decay storage vessel will be transferred to the Interim Examination and Maintenance (IEM) cell for washing and drying, loaded into existing approved shipping containers, and transferred to secure onsite storage (Should DOE's Savannah River Site (SRS) become available for FFTF fuel storage, this fuel may be shipped directly to SRS pending approval of environmental documentation).	3/31/2009

¹ The sequence of washing of unirradiated, irradiated and special fuel groups as identified in Target Dates M-81-00A-T02, M-81-00A-T03 and M-81-00A-T04 are dependent upon currently unknown external schedules (i.e. PFP shutdown schedule and INEEL (ANL-W) storage schedule), however, all the fuel will be washed and stored in time to meet the milestone date. Fuel washing operations for the fuel groups will be sequenced to accommodate storage schedules for each fuel group.

Milestone	Description	Due Date
M-81-00A-T03 ²	Complete transfer of irradiated fuel to secure onsite storage.	3/31/2009
	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 secure Hanford site storage.	
M-81-00A-T04 ²	Complete transfer of special fuel to DOE's Idaho National Engineering Laboratory for consolidated storage.	3/31/2009
	Sodium-bonded irradiated metal and carbide fuel from assemblies cleaned in the IEM Cell will be loaded into existing, approved shipping casks, and transported to the Idaho National Engineering Laboratory (INEEL, ANL-W) in Idaho Falls, Idaho, for consolidated storage. Should the INEEL, ANL-W facility not be readily available, sodium bonded fuel will be loaded in Interim Storage Casks and transferred to a storage location on the Hanford Site (e.g., 200 or 400 Area Interim Storage Areas). One unirradiated metal fuel assembly will also be dispositioned in a similar manner.	
M-81-00A-T05	Complete auxiliary plant systems deactivation.	2/28/2011
	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.	
M-81-01	Initiate sodium storage facility construction.	2/28/1997 completed 10/09/1995
	This milestone will be achieved when the construction contractor is issued the notice to proceed with construction by the contracting officer.	

² The sequence of washing of unirradiated, irradiated and special fuel groups as identified in Target Dates M-81-00A-T02, M-81-00A-T03 and M-81-00A-T04 are dependent upon currently unknown external schedules (i.e. PFP shutdown schedule and INEEL (ANL-W) storage schedule), however, all the fuel will be washed and stored in time to meet the milestone date. Fuel washing operations for the fuel groups will be sequenced to accommodate storage schedules for each fuel group.

Milestone	Description	Due Date
M-81-02	<p>Complete sodium storage facility startup.</p> <p>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.</p>	7/31/1998 completed 01/1997
M-81-10-T01	<p>Submit final sodium disposition evaluation report</p> <p>The Office of River Protection will use the Hanford Site radioactive sodium inventory (i.e., FFTF, Hallam and SRE sodium following conversion to sodium hydroxide) in the Waste Treatment Plant (WTP) for tank sludge pretreatment (i.e., caustic washing). A report will be prepared in concert with M-92-10 to: 1) determine where the sodium will be converted (i.e., an existing facility operated by Argonne National Laboratory – West (ANL-W) located within the INEEL site or at a new facility to be constructed adjacent to the Sodium Storage Facility) and 2) to establish need dates for delivery of the caustic to WTP. Following submittal of this report, appropriate milestones and/or target dates will be established for the final disposition of the sodium.</p>	09/30/2005
M-81-11	<p>Submit FFTF End Point Criteria Document.</p> <p>A document identifying the end point criteria necessary to place the FFTF in a safe and stable surveillance and maintenance configuration will be developed. This document will be provided to EPA and Ecology for review, and approval for the regulated units and/or hazardous substances proposed to remain at the facility after transition is complete.</p>	8/31/2005
M-81-12	<p>Initiate FFTF Sodium Drain.</p> <p>This milestone will be complete when the drain of the first secondary loop is begun. Completion will be achieved when all the preparatory actions (i.e., procedures written and approved, plant configuration line-up, Operator training, facility startup review) have been completed and sodium is being transferred to in-plant tank T-44.</p>	6/30/2003

Milestone	Description	Due Date
M-81-13	Complete reactor and heat transport system sodium drain.	6/30/2005
	<p>Primary and Secondary heat transport systems, Reactor Vessel (including reactor vessel plenum), and supporting sodium systems will be drained to the sodium storage facility to the maximum extent practical. The sodium will be stored as product material in the sodium storage facility. Remaining sodium residuals (est. 3600 "gallons") will be solid in form (adhering to the surfaces of system components, small pockets inherent to the reactor design, and in heat transport system cold traps and valves). These residuals will be maintained under an inert gas blanket or passivated to minimize potential reactions during the long-term surveillance and maintenance phase. During final facility disposition, any regulated wastes generated from the cleaning or dismantlement of these systems will be managed in compliance with applicable regulatory requirements.</p>	
M-81-14-T01	Complete Fuel Storage Facility sodium drain.	4/30/2007
	<p>The Fuel Storage Facility vessel will be drained to the sodium storage facility to the maximum extent practical. Sodium residuals will be maintained under an inert gas blanket or passivated to minimize potential reactions during the long-term surveillance and maintenance phase. During final facility disposition, any regulated wastes generated from the cleaning or dismantlement of these systems will be managed in compliance with applicable regulatory requirements.</p>	
M-81-14-T02	Initiate Interim Decay Storage Vessel sodium drain.	6/30/2008
	<p>This milestone will be complete when sodium drain from the Interim Decay Storage Vessel is begun. Completion will be achieved when all the preparatory actions (i.e., procedures written and approved, plant configuration line-up, Operator training, facility startup review) have been completed and sodium is being transferred to in-plant tank T-43.</p>	
M-81-14	Complete FFTF Sodium Drain.	9/30/2009
	<p>This milestone will be complete when all sodium (with the exception of noted sodium residuals) has been drained from the FFTF reactor and its associated systems and the fuel storage vessels.</p>	

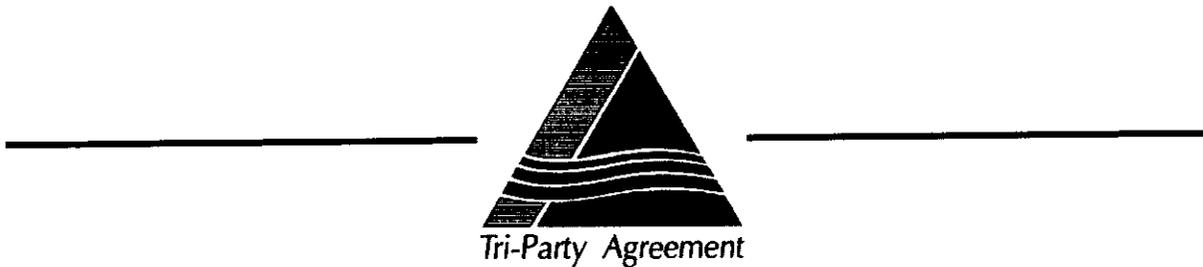
Milestone	Description	Due Date
M-81-15	Submit FFTF Surveillance and Maintenance Plan. DOE will develop a plan detailing S&M activities to occur at FFTF during the S&M phase. This plan will be provided to EPA and Ecology for review, and approval for the regulated units and/or hazardous substances proposed to remain at the facility. This plan will include documentation of lists of hazardous substances including dangerous wastes that remain in the FFTF Facility upon completion of transition 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.	06/30/2010

The following M-20-29B interim milestone replaces existing milestone M-20-29A.

Milestone	Description	Due Date
M-20-29B	Submit sodium storage facility and sodium reaction facility closure plan or request for procedural closure to Ecology as defined in Agreement section 6.3.3. FFTF constructed the sodium storage facility (SSF) on the basis of providing RCRA and WAC 173-303 compliant storage for the sodium in the event it was determined not to be product material. The sodium reaction facility (SRF) was also included in the permit request, even though construction of the SRF was not planned at that time. The FFTF, Hallam and SRE sodium will be used as a product feedstock in the pretreatment at the Waste Treatment Plant (WTP). The sodium will be stored as product material in the sodium storage facility. Therefore, a request for procedural closure as defined in section 6.3.3 of the Agreement will be submitted for the SSF and SRF units.	6/30/2003

APPENDIX A

Commenter Index By Alphabetical Order



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

April 2003

Appendix A. Comment Index By Alphabetical Order

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Two petitions received at the public meetings are found on the following pages. Each signatory was assigned a commenter number.

Considering the many beneficial impacts that the Fast Flux Test Facility can have for diagnostics, treatments, and other medical procedures; and after learning more about what is at stake for our patients, for our region, and for our nation,

I oppose the shutdown and decommissioning of the Fast Flux Test Facility at Hanford, Washington.

- | | Signature | Print Name | Address | City | WA zip |
|-----|-----------|---------------------|----------------------|------------|----------|
| 486 | | NEIL RAKANS | 1131 Saddleway | Richland | 99352 |
| 487 | | Thomas Williams | 670 Clermont Dr. | Richland | 99352 |
| 488 | | RICHARD LONG | 1125 SADDLEWAY | Richland | 99352 |
| 489 | | SARA ZIRKLE | 2598 Hazzie St | | |
| 490 | | MARGERY STEWART | 2436 Alexander | Richland | |
| 491 | | Jeffrey J. Anderson | 5121W 10th Ave | Kennewick | 99345 |
| 492 | | H. GAMBER | 166 McCannomy | Richland | WA |
| 493 | | MARK WERRELL | 821 Swift | Richland | 99352 |
| 494 | | C. L. MOSS | 705 Gye | Richland | 99352 |
| 495 | | ANJAN BEN | 2348 CANAS AVE, | Richland, | WA |
| 496 | | Mahdi Kholod | 2857 Kyle Rd | Kennewick | WA |
| 497 | | CHRISTINA KOONCE | 6709 W. PARK ST | MASCO | 99301 |
| 498 | | Sheila Regg | Tri Cities Co Center | | |
| 499 | | Wing Chau M.D. | 344 Riverwood | | |
| 500 | | PAT HAMMER | 1256 CHAMWOOD | Richland | WA |
| 501 | | LARRY W. LOVRIDGE | 3307 S. Amos St | Kennewick, | WA |
| 502 | | DERICK JOLLER | 2405 W Canal Dr | Kennewick | WA 99336 |
| 503 | | CLARK JOLLER | 4352 W Cramer | Seattle | WA 98118 |
| 504 | | J. KHANDAL | From 26 W 10th | | |
| 505 | | Mahmoud Al-Hamad | | | M.D. |

Considering the many beneficial impacts that the Fast Flux Test Facility can have for diagnostics, treatments, and other medical procedures; and after learning more about what is at stake for our patients, for our region, and for our nation,

I oppose the shutdown and decommissioning of the Fast Flux Test Facility at Hanford, Washington.

	Signature	Print Name	Address	City	Zip
508	<i>[Signature]</i>	Victor Johnson	15005 Claretter Rd	Kenn.	99338
507	<i>[Signature]</i>	Peter Downing Mather	4113 S. KELLER ST.	KENNEWICK WA	99337
508	<i>[Signature]</i>	George Stachecki	203 W 8th	Kenn	99336
509	<i>[Signature]</i>	Thomas L. Nielsen	2753 Rue St. Richland	Wa	99352
510	<i>[Signature]</i>	Donald h. Olson	2301 S. Lebetter Pl	Kenn.	99337
511	<i>[Signature]</i>	Leonardo Cabanilla	3203 W. Canal St.	Kenn.	99336
512	<i>[Signature]</i>	EMILIO V. BUONO	7803 W. Deschutes	Kenn.	99336
513	<i>[Signature]</i>	Raja Ward	7325 W. Deschutes	Kenn.	99336
514	<i>[Signature]</i>	Tara Burdett	10900 4th St	Pasco	
515	<i>[Signature]</i>	Paulo Colorado	2924 W. 43rd St	Kennwick, WA	
516	<i>[Signature]</i>	Warren Kohn	417 S. Pine St	Kennwick	99337
517	<i>[Signature]</i>	Phillip D. Vance	678 8th St	Kennwick	99336
518	<i>[Signature]</i>	C. WOOD COLEMAN	1180 S DOW ST	KENNEWICK WA	99337
519	<i>[Signature]</i>	Julie Walker	1537 W. 24th	Kennwick, WA	99337
520	<i>[Signature]</i>	Jamie Wilder	38 S. Yehust	Kennwick Wa	99336
521	<i>[Signature]</i>	Esther P. de Leon	921 S. Parker		99337
522	<i>[Signature]</i>	Robert Salisbury	4112 S Green St	Kenn	99337
523	<i>[Signature]</i>	Jim Richards	4101 W 43rd	Kenn	WA 99337
524	<i>[Signature]</i>	Tim Brackmeyer	MD, 1510 Laker Dr	Liberty WA	99106

Presented by Benton Franklin Med Society
 pages

Considering the many beneficial impacts that the Fast Flux Test Facility
 can have for diagnostics, treatments, and other medical procedures;
 and after learning more about what is at stake for our patients,
 for our region, and for our nation,

I oppose the shutdown and decommissioning of the
 Fast Flux Test Facility at Hanford, Washington.

Signature	Print Name	Address	City	Zip
	Craig Howell	9005 Auburn	Kennecook	WA 99338
	Kevin C. Turner	2180 Mustang	Richland	WA 99352
	Jeremy Blomquist	6917 W. 20th Ave	Kennecook	WA 99338
	Chris RAVAGE	52537 E King	BC	99320
	Scott Hammersmith	2550 Dupontail	P196	Richland
	Michael Patisse	2857 Leyside Ln	Richland	99352
	Anthony Sada	300 Columbia St	DA	WA 99320
	N.K. Hettari	365 Duffwood	Richland	WA 99338
	Cit Hager	470 Meadow Hills Dr	Richland	WA 99352
	Steven I. Kincaid	407 Shaw	Richland	WA 99338
	C.D. Wang	2647 Harris	Richland	WA 99352
	Thomas Trost	Richland	Richland	99352
	Hugo Gomez-Eguiluz	Richland	Richland	99352
	Dwayne Dwayne	10824 W. Court	Pareo	99338
	Craig M. Ferguson	312 Swift Blvd	Richland	WA 99338
	R.A. MARULIES	3805 S. VANCOUVER	KENNECOK	WA 99338
	James H. Senechal	121st Hiram	Atasco	WA 99301
	Serge Obukhov	800 Swift Blvd	Richland	99352
	Nathan Hunter	800 Swift Blvd	Richland	99352

Return to Craig Howard
586-5835

Considering the many beneficial impacts that the Fast Flux Test Facility
can have for diagnostics, treatments, and other medical procedures;
and after learning more about what is at stake for our patients,
for our region, and for our nation,

I oppose the shutdown and decommissioning of the
Fast Flux Test Facility at Hanford, Washington.

- | Signature | Print Name | Address | City | Zip |
|----------------------------|-----------------------|--------------------------|-----------|----------|
| <i>James Clark</i> | JAMES A CLARK | 111 MacArthur | Richland | WA 99352 |
| <i>Derek Larson</i> | Derek Larson | 2031 Appleton Way | Richland | WA 99352 |
| <i>TDLA</i> | TDLA | 780 Swift Blvd | Richland | WA 99352 |
| <i>Hui-Juan Zhang</i> | Hui-Juan Zhang MD PhD | 780 Swift Blvd Suite 170 | Richland | WA 99352 |
| <i>MATHIAS</i> | MATHIAS | 780 Swift Blvd | Richland | WA 99352 |
| <i>GARCIA</i> | GARCIA | 1096 GARDNER ST | Richland | WA 99352 |
| <i>David Hoffman</i> | David Hoffman | 2620 S. 916 | Kennecook | WA 99358 |
| <i>Susan Sealy</i> | Susan Sealy | 2603 W. Clearwater | Kennecook | WA 99358 |
| <i>TINA M HEINTZ</i> | TINA M HEINTZ | 40 DELAFIELD AVE | RICHARDS | WA 99356 |
| <i>Ronald Schwabe</i> | Ronald Schwabe | 3404 W 42nd Ave | Kennecook | WA 99358 |
| <i>Michael F Albertini</i> | Michael F Albertini | 925 Stearns Dr | Richland | WA 99352 |
| <i>Robert Marshall</i> | Robert Marshall | 925 Stearns Dr | Richland | WA 99352 |
| <i>Frances Deinbach</i> | Frances Deinbach, Mrs | 925 Stearns Dr | Richland | WA 99352 |
| <i>ALAN HUNT</i> | ALAN HUNT | 949 Stearns | Richland | WA 99352 |
| <i>PETER E. SEDA, M.D.</i> | PETER E. SEDA, M.D. | 969 STEARNS DR | RICHLAND | WA 99352 |
| <i>785 S. Stearns</i> | 785 S. Stearns | | Kennecook | WA 99356 |
| <i>900 S. Stearns</i> | 900 S. Stearns | | Kennecook | WA 99356 |
| <i>9209 W. GARDNER</i> | 9209 W. GARDNER | | Kennecook | WA 99356 |

3AN support

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Considering the many beneficial impacts that the Fast Flux Test Facility can have for diagnostics, treatments, and other medical procedures; and after learning more about what is at stake for our patients, for our region, and for our nation,

I oppose the shutdown and decommissioning of the Fast Flux Test Facility at Hanford, Washington.

	Signature	Print Name	Address	City	Zip
563	<i>[Signature]</i>	<i>[Signature]</i>	811 S. Auburn	K	99336
564	<i>[Signature]</i>	R. F. NS	911 S. Wallington	Kim	99336
565	<i>[Signature]</i>	Clarence May	7221 W. Deschutes	Kenn	99336
566	<i>[Signature]</i>	Stephen Emery	1233 W. Deschutes	Kenn	99336
567	<i>[Signature]</i>	Byron L. Burrap	8232 W. Grandridge	Kenn.	99336
568	<i>[Signature]</i>	SABAH ALTAYAR	10500 W. Kephik Rd	Kennawick	WA 99358
569	<i>[Signature]</i>	Jenni Heral	821 Swift	Rushwa	99352
570	<i>[Signature]</i>	"	"	"	"
571	<i>[Signature]</i>	Owen Higgs	"	"	"
572	<i>[Signature]</i>	Lew Zink	875 Swift	"	"
573	<i>[Signature]</i>	Wes Lindau	9005 Auburn	Kennawick	
574	<i>[Signature]</i>	S.K. Wadhwa	780 Swift	Kennawick	
575	<i>[Signature]</i>	ROBERTO AMADO-CATTANEO	780 SWIFT	KENAWICK	
576	<i>[Signature]</i>	"	"	"	"
577	<i>[Signature]</i>	Scott Miller	780 SWIFT	Kennawick	WA 99352
578	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	Kenn	99336

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Return to Craig Howell

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Considering the many beneficial impacts that the Fast Flux Test Facility can have for diagnostics, treatments, and other medical procedures; and after learning more about what is at stake for our patients ^{(and} for our region, and for our nation, ^{750 top 03)}

I oppose the shutdown and decommissioning of the Fast Flux Test Facility at Hanford, Washington.

Signature	Print Name	Address	City	Zip
	Robert Shilling	5003 W. 19th Ave	Kennecook	
	Sheila Thiel	1618 West Coast St	MLU	99701
	Janice Hart	P.O. Box 4758	Pasco	99301
	Kelsey Fenton	4118 S. Vancouver	Kennecook	99337
	C. Snyder	2549 W. 33rd Pl	Kennecook	99338
	B. Bolek	510 W. 24th Ave	Kennecook	
	Stanley Cline	216 W. 102nd Ave	Kenema	
	Mary Ann Zankovsk	618 Alwood	Richland	WA 99352
	Debra M. Logan	2407 W 30th	Kennecook	993
	Thomas Tan, MD, FCCP	911 S. Auburn	Kennecook	99324
	Fred Foss	119 Ave 54th		
	Thomas Honan	1631 Elmsburg	Richland	99312
	James A. Lewis, MD	201 East Street	Pasco, Washington	99301
	M. Gillan	5503 N. Evert Rd	Benton City	WA 993
	Timothy Chen	5704 W. 8th Ave	Kennecook	WA 993
	Traci Lovat	Sm		
	Judy Rowe	7271 Russell Dr	Ken WA	
	John Traversato	5033 W 12th Ave	Kennecook	993
	J. G. Bonds			

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return to Craig Howell

Considering the many beneficial impacts that the Fast Flux Test Facility can have for diagnostics, treatments, and other medical procedures; and after learning more about what is at stake for our patients, for our region, and for our nation,

I oppose the shutdown and decommissioning of the Fast Flux Test Facility at Hanford, Washington.

	Signature	Print Name	Address	City	Zip
598 MD	<i>[Signature]</i>	T. CLAR DE JESUS	521 N. Young St	Kenn	WA 99336
599 MD	<i>[Signature]</i>	CHRISTOPHER G. HANSON	521 N. Young St.	Kennwick	WA 99336
600 MD	<i>[Signature]</i>	James R. Beck	521 N. Young St	Kenn	WA 99336
601 MD	<i>[Signature]</i>	Madelaine Marcus	521 N Young St	Kenn	WA 99336
602 MD	<i>[Signature]</i>	Mary Klemm	P.O. Box 4360	West Richland	WA 99353
603 MD	<i>[Signature]</i>	Mark O. Fleker	2907 W 46th Ave	Kenn	WA 99337
604 MD	<i>[Signature]</i>	Bob Messner	1921 Newton Dr	Richland	WA 99352
605 MD	<i>[Signature]</i>	Sheila K. Dunlap	6002 W 26th	Kennwick	WA 99335
606 MD	<i>[Signature]</i>	Steven Weighall	4901 W. 19th Ave	Kennwick	WA 99338
607 MD	<i>[Signature]</i>	Kan Regier	1262 Bronwood Ave	Richland	WA 99352

1688

Considering the many beneficial impacts that the Fast Flux Test Facility can have for diagnostics, treatments, and other medical procedures; and after learning more about what is at stake for our patients, for our region, and for our nation,

I oppose the shutdown and decommissioning of the Fast Flux Test Facility at Hanford, Washington.

- | | Signature | Print Name | Address | City | Zip |
|-----|--------------------|--------------------|------------------|----------------|---------------|
| 608 | <i>[Signature]</i> | John W. Stadel | 875 Swift | Richland WA | 99352 |
| 609 | <i>[Signature]</i> | Rand Woodman | 359 Cloerwood | Richland WA | 99352 |
| 610 | <i>[Signature]</i> | JOHN HENRIQUEL | PALCO | | |
| 611 | <i>[Signature]</i> | Richard G. Thayer | 6 MARYKATE | TASCO, WA | 99301 |
| 612 | <i>[Signature]</i> | RANSI PILLAI | 4114 S. IRVING | Kennecook WA | 99337 |
| 613 | <i>[Signature]</i> | Emad Khirfan | 8530w canyon | Kenn WA | 99336 |
| 614 | <i>[Signature]</i> | Kim Aubrey | 723 Fordst | Prosser WA | 99350 |
| 615 | <i>[Signature]</i> | Jenifer Smella | 246 W 23rd Pl | Kenn WA | 99337 |
| 616 | <i>[Signature]</i> | MARICIA HILL | 320 W 10th | Kenn WA | 99336 |
| 617 | <i>[Signature]</i> | DR. ACORN | SUITE 200 | 320 W 10th | Kenn WA 99336 |
| 618 | <i>[Signature]</i> | MARK NACHMAN | | | |
| 619 | <i>[Signature]</i> | R.N. Bonnie Simons | 1718 W 25th | Kenn WA | 99337 |
| 620 | <i>[Signature]</i> | Raymond Sjorven | 1725 S. Aino | Kennecook WA | 99337 |
| 621 | <i>[Signature]</i> | Hendi Moore | 18025 Forest | Kennecook, WA | |
| 622 | <i>[Signature]</i> | Misty Rodriguez | 4711 W. Metaline | Kenn WA | 99336 |
| 623 | <i>[Signature]</i> | Patricia Lamb | 2839 W. Cross | Alex Kennecook | |
| 624 | <i>[Signature]</i> | Sandie Watkins | 1938 Lutter Pl. | Richland WA | 99336 |
| 625 | <i>[Signature]</i> | Anna Heitz | 11006 S. Taft St | Kennecook WA | 99338 |

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Considering the many beneficial impacts that the Fast Flux Test Facility can have for diagnostics, treatments, and other medical procedures; and after learning more about what is at stake for our patients, for our region, and for our nation,

I oppose the shutdown and decommissioning of the Fast Flux Test Facility at Hanford, Washington.

264 Joshua Rd

	Signature	Print Name	Address	City	Zip
ex 635	<i>G. Van Houdt</i>	G. VAN HOUDT	Kennecook		99338
ex 636	<i>Grant MD Tarr</i>	Grant	32509 E 128th	Bellevue	99320
ex 637	<i>Markle MD</i>	Jeff Markle	11085 Highland Pl.	Kennecook	99337
638	<i>Brad Bolas</i>	Brad Bolas	125 Bremner St	Rich	99352
639	<i>Dr. J. Fisher</i>	Dr. Fisher	785 South Main		99337
640	<i>Arthur Galbraith</i>	Arthur Galbraith	Po Box 387	Pasco	WA 99301
641	<i>Annie Haag</i>	Annie Haag	3818 S. Buntin	Ken WA	99337
642	<i>Tommy Eustace</i>	Tommy Eustace	216 W 10th Ave	Kennecook	WA
643	<i>ROLY BRYAN</i>	ROLY BRYAN	943 W METZING	KENNEC.	
644	<i>Steve</i>	Steve	5216 Montague Ln	Pasco	99301
645	<i>Richard Shalman</i>	Richard SHALMAN M.D.	321 Bradman	Richland WA	
646	<i>Chrysler J. Furlong</i>	Chrysler J. Furlong	4606 W. Yellowstone Ave	Kennecook, WA	99336

WLN & citizens
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Considering the many beneficial impacts that the Fast Flux Test Facility can have for diagnostics, treatments, and other medical procedures; and after learning more about what is at stake for our patients, for our region, and for our nation,

I oppose the shutdown and decommissioning of the Fast Flux Test Facility at Hanford, Washington.

	Signature	Print Name	Address	City	Zip
647	<i>[Signature]</i>	G. VAN HOUT	264 Joshua Rd	Kennecook	99338
648	<i>[Signature]</i>	Teri Grant	32909 E 72nd	Bellevue	99320
649	<i>[Signature]</i>	Jeff Markle	11085 Highland Pl.	Kennecook	99337
650	<i>[Signature]</i>	Donald Dickerson		Pasco, WA	99301
651	<i>[Signature]</i>	HENRY CHON	1200, N 14TH, #285	Pasco, WA	99301
652	<i>[Signature]</i>	Ellen J. Spey	3921 W. Park	Pasco WA	99301
653	<i>[Signature]</i>	Alfred Montano	1200 N 14TH	PASCO WA	99301

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Considering the many beneficial impacts that the Fast Flux Test Facility can have for diagnostics, treatments, and other medical procedures; and after learning more about what is at stake for our patients, for our region, and for our nation,

I oppose the shutdown and decommissioning of the Fast Flux Test Facility at Hanford, Washington.

	Signature	Print Name	Address	City	Zip
854	<i>Stuart Freeman MD</i>	Stuart V. Freeman	953 Stevens	Richland	99352
855	<i>E.R. Grunwald</i>	E.R. Grunwald	953 Stevens	Richland	99352
856	<i>Michael Deane</i>	MICHAEL DEANE	712 W. CLARK	PARO, WA	99001

MD

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17

Considering the many beneficial impacts that the Fast Flux Test Facility can have for diagnostics, treatments, and other medical procedures; and after learning more about what is at stake for our patients, for our region, and for our nation,

I oppose the shutdown and decommissioning of the Fast Flux Test Facility at Hanford, Washington.

	Signature	Print Name	Address	City	Zip
657		C Heim, MD	88 Swift Blvd	Richland	
658		Barbara K. Malling	888 Swift Blvd	Richland	
659		Mark Stultz	888 Swift Blvd	Richland	
660		Rebecca Hammans	888 Swift Blvd	Richland, WA	99352
661		Robert P. Shanks	888 Swift Blvd	Richland WA	99352
662		Traci Smith	888 Swift Blvd	Richland	99352
663		Judy Greene	49005 Dayton St	Renwick, WA	99355
664		Melinda Rouse	3809 Riverhill Dr	Passo	99301
665		John Gardner	Po Box 4573	West Richland	99353
666		Tricia Herget	408 Wright St	Richland	99353
667		Judy Leavelle	4300 S. Millbrook	Richland	99357
668					
669					

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Considering the many beneficial impacts that the Fast Flux Test Facility can have for diagnostics, treatments, and other medical procedures; and after learning more about what is at stake for our patients, for our region, and for our nation,

I oppose the shutdown and decommissioning of the Fast Flux Test Facility at Hanford, Washington.

	Signature	Print Name	Address	City	Zip
675	<i>Frank Cole</i>	Frank Cole	2051 Veneta Ct	Ridgely	WA 99357
676	<i>M. R. Marquis</i>	M. R. Marquis	380 Vancouver	Kamnik	WA 99357
677	<i>D. L. ...</i>	D. L. ...	2363	99352
678	<i>F. John Smith</i>	F. John Smith	3774 Southlake Dr.	W. Richland	99352
679	<i>...</i>	...	800 Backer	...	99354
680	<i>James ...</i>	James ...	12108 Hillcrest	Pasco	WA 99301
681	<i>...</i>	...	800	99301
682	<i>...</i>	...	1206 Marshall	...	99352

2 RN *H. ...*

Considering the many beneficial impacts that the Fast Flux Test Facility can have for diagnostics, treatments, and other medical procedures; and after learning more about what is at stake for our patients, for our region, and for our nation,

I oppose the shutdown and decommissioning of the Fast Flux Test Facility at Hanford, Washington.

Signature	Print Name	Address	City	Zip
683 <i>[Signature]</i>	Lynn S. Jackson	1990 5th Ave	Richland, WA	99352
684 <i>[Signature]</i>	Randall Weissbuch	1292 Colby Ave	San Diego, CA	92106-2432
685 <i>[Signature]</i>	Catrina Herr	4706 W 19th	Kennecook	
686 <i>[Signature]</i>	Elizabeth Lomben	1603 S. Blouse Place	Kennecook	99337
687 <i>[Signature]</i>	Vivian Hill	2022 Blue Ave	Richland	99352
688 <i>[Signature]</i>	Ann Voss	2314 W. Knappa	Kennecook	99337
689 <i>[Signature]</i>	Torri Edwards	933 Highland	Kennecook	99337
690 <i>[Signature]</i>	Alejandra Madrigal	100 W. Irving Pl. Apt. 3-205	Kennecook	99337
691 <i>[Signature]</i>	Alma Dilger	39107 S Whitney Rd	Kennecook	99337

After reading the attached information, and learning more about the important issues at stake for our patients, for our region and for our nation,

**I oppose the shutdown and decommissioning of the
Fast Flux Test Facility at Hanford Washington.**

	Signature:	Print Name:	Address:	City:	Zipcode
682	<i>Anatole Kim</i>	ANATOLE KIM	911 Coach Ct	Yakima	98908
683	<i>Tony Ho</i>	Tony Ho	216 S. 78th Ave	Yakima	98908
684	<i>Johus Place</i>	JOHUS PLACE	5710 MARILANE	YAKIMA	98908
685	<i>Diane C. Murphy</i>	Diane C. Murphy	6008 Scenic Dr.	Yakima	98908
686	<i>Michael Murphy</i>	Michael Murphy	1005 W Walnut	Yakima	98908
687	<i>Cherri Lange</i>	CHEIRI LANGE	611 N 53rd	Upt	98908
688	<i>Alan Young</i>	Alan Young	1300 Meadowbrook Ln	Zillah	98953
689	<i>Ted H. Rusk</i>	Ted H. Rusk	Ed Tanglewood	Seah	98908
700	<i>R.D. Lewis</i>	R.D. Lewis	2107 W. Chestnut	Yakima	98908
701	<i>S.D. Anverlick</i>	S.D. ANVERLICK	PO Box 8196	YAKIMA, WA	98908
702	<i>Ray Funk MD</i>	K. FUNK	306 HOLTON	YAKIMA	98902
703	<i>John Adkison</i>	John Adkison	806 Crest Dr.	Yakima	98908
704	<i>Ray Mervel</i>	Ray Mervel	6808 Englewood Terrace		
705	<i>Eileen Merrell</i>	EILEEN MERRELL	"	Yakima, WA	98908
706	<i>J. Hamilton Licht</i>	J. Hamilton Licht	66.1 but Dr	Yakima	WA 98908

After reading the attached information, and learning more about the important issues at stake for our patients, for our region and for our nation,

**I oppose the shutdown and decommissioning of the
Fast Flux Test Facility at Hanford Washington.**

	Signature:	Print Name:	Address:	City:	Zipcode
707	<i>[Signature]</i>	WILLIAM F. V. STORBE	1211 N. 16 th Ave	Yakima	98902
708	<i>[Signature]</i>	Maryann Clements	420 Larkspur	Selah WA	98941
709	<i>[Signature]</i>	Jim Clements	420 Larkspur	Selah WA	98941
710	<i>[Signature]</i>	Robert A. Ortiz	2110 W. Yakima Ave	Yakima WA	98902
711	<i>[Signature]</i>	Thomas Wiselley	216 N. 77 th Ave	Yakima	98908
712	<i>[Signature]</i>	Cornelia Wiselley	216 N. 77 th Ave	Yakima	98908
713	<i>[Signature]</i>	Jan Newhouse	2521 S. Emerald	Sunnyside WA	98944
714	<i>[Signature]</i>	Carol Newhouse	2521 S. Emerald	Sunnyside	98944
715	<i>[Signature]</i>	JOHN W. ALLEN	421 BAGLEY S SIDE	WA	98941
716	<i>[Signature]</i>	JAN E. LANGE	611 N. 53 rd Ave	Yakima	98908
717	<i>[Signature]</i>	M. Carmen Roulston	U. CARMEN ROULSTON	2810 W. Chestnut	Yakima 98902
718	<i>[Signature]</i>	Russell Maier	2712 W. Yakima Ave		98902
719	<i>[Signature]</i>	Henry M. Johnson, MD	431 Forest Park	Hot RI	
720	<i>[Signature]</i>		Wapato, Wa		98951
721	<i>[Signature]</i>	John K. Boucher	6305 Scenic Dr.	Yakima	98902
722	<i>[Signature]</i>	Karen Boucher	" " " "	" " " "	" " " "
723	<i>[Signature]</i>	Samuel A. Boston	6302 Scenic Dr.	Yakima	98902
724	<i>[Signature]</i>	LJ Schwaegler	7 Gilbert Dr.	Yakima	98902
725	<i>[Signature]</i>	Kathleen Farrell	1004 S 27 th Ave	" "	" "
726	<i>[Signature]</i>	Laura Muehleck	PO Box 8196	Yakima	98905
727	<i>[Signature]</i>	David (Ester)	1004 S 27 th Ave	Yakima	98902
728	<i>[Signature]</i>	Suzanne J. Schwaegler	7 Gilbert Dr.	Yakima	98902
729	<i>[Signature]</i>	Nancy Boston	6302 scenic Dr.	Yakima, WA	98902

After reading the attached information, and learning more about the important issues at stake for our patients, for our region and for our nation,

**I oppose the shutdown and decommissioning of the
Fast Flux Test Facility at Hanford Washington.**

730 Signature: *Charlene Npton* Print Name: *Charlene Npton* Address: *POB 2514* City: *Yakima* Zipcode: *98907*

Lined area for additional signatures or text.

Received
9/26/02
Yakima Valley
Health
[Signature]

Submitted by Dr. Dodge

**After the Reception, Go to the Ballroom
Attend the hearing to save the Fast Flux Test Facility
(FFTF) at Hanford Washington.
7:00 to 10: P.M.**

Show your support to stop demolition and start utilizing this valuable resource with its vast potential for the benefit of our patients, our community and our nation.

The FFTF was originally constructed as a research, development and production facility for the next generation of electricity generators utilizing nuclear power at a cost of \$1.2 billion. As a research facility it has the vast flexibility to generate neutrons in a wide spectrum of energies. As a production facility it has the capacity to produce useful products in industrial quantities. It is a unique and valuable resource to our nation and in the world.

Its mission for the design and engineering of power generators was accomplished between 1978 and 1993 when it operated safely and effectively. At that time there was a perception of the overproduction of power into the future and with the unpopularity of nuclear power plants a decision was made to decommission the facility and decontaminate the site (D&D). An estimated total cost for D&D is \$2 billion.

Meanwhile the world's energy outlook is changing and technology has advanced in every field. Because of its flexibility and capacity, its potential value for other peaceful applications has increased. Although these alternative uses have been explored in depth, the Department of Energy has not reviewed them in sufficient detail to recognize the value of this facility for our nation into the future. Its demolition has been placed on "fast track" for reasons that are not rational to most persons in the scientific, engineering and medical community. Its destruction needs to be halted before irreversible damage occurs.

In Yakima, the nuclear medicine departments at Yakima Valley Memorial Hospital and Providence Yakima Medical Center perform 20 to 40 procedures a day using radiopharmaceuticals tagged with ^{99m}Tc. We study, noninvasively, function and disease of the brain, thyroid, lungs, heart, liver, gallbladder, kidneys, intestine, lymphatics and skeleton. Cancer detection comprises only about 15% of the studies that we perform with ^{99m}Tc tagged radiopharmaceuticals. All of the ^{99m}Tc used in the United States is imported from a single production facility in Canada. When it went down, limited supplies were imported from Europe. We have been lucky that our supply of this valuable radiopharmaceutical had never been interrupted for long. How long should we trust our good fortune to luck? It seems foolhardy to depend on a single source for such a valuable product, especially when all those sources are in foreign countries. The FFTF has the ability and capacity to produce our nations requirement for ⁹⁹Molybdenum that is the radioactive precursor of ^{99m}Tc.

Cancer treatments have been developed, using antibodies against surface antigens on tumor cells that are tagged with potent radioisotopes. One example is Zevalin™ that treats non-Hodgkin's lymphoma. This approach to therapy basically utilizes a smart molecule (a murine IgG antibody against the CD20 antigen found on the surface of B lymphocytes) that delivers the lethal beta radiation (Yttrium-90) bullet to the lymphoma cells. The Regional Cancer Care Center in Yakima was the only site in Washington State where Phase III clinical trials were conducted for this important new cancer treatment.

Cancer is not just one disease. For the numerous forms of cancer multiple strategies are needed for control. Designer antibodies are being developed that deliver killer genes and/or killer radiation to cancer cells. All potential strategies should eventually be tested. This mission will extend into the future for as far as anyone can imagine, using designer molecules tagged with designer radioisotopes. Future developments should focus on research with alpha emitting radioisotopes that can be produced in neutron reactors like the FFTF. Alpha emitters have the advantage of releasing their radiant energy over a very short distance so that most of the radiation kills only the cancer cells, while sparing nearby normal cells.

These two examples of local impact represent only a "scratch on the surface" for the potential value of the FFTC to our region and to our nation.

As manufacturing moves off shore, R&D follows. Ask yourself, "What should our nation do with our sons and daughters who graduate from our universities, colleges and technical schools, when high technology research and development is done in other parts of the world?"

**Oppose the shutdown and decommissioning of the
Fast Flux Test Facility at Hanford Washington.**

738

James T. Dodge, M.D.
2205 W. Chestnut Ave
Yakima WA 98902-3744