Commentor No. 1775: P. F. Shaw

From: Pete Shaw[SMTP:PETESHAW@JUNO.COM]
Sent: Monday, September 18, 2000 4:01:47 PM
To: INFRASTRUCTURE_PEIS, NUCLEAR
Subject: Restart and Operation of the FFTF
Auto forwarded by a Rule

I support restart and operation of the FFTF for the following reasons:

Production of medical isotopes for cancer research and treatment

Domestic production of radiation sources for use in irradiation of food and sterilization of medical/surgical supplies

Materials and source research and development

1775-1

The reason given for the shutdown of the fast reactor programs in the United States _ which included the FFTF _ was to discourage the proliferation of nuclear weapons worldwide. That was a total failure. We pretty much destroyed our position as world leader in nuclear technology without gaining any benefit whatsoever by that sacrifice.

1775-2

In response to the often heard statement that restart of the FFTF would detract money and attention from cleanup of the Hanford reservation, it's much more likely that shutdown of the facility would have that effect. Restart and operation would be funded from different sources and be done by different staff.

A excellent job was done on the PEIS. The people responsible can take pride in accomplishing that, and under pressures that must have been obscene.

Thank you for the opportunity to comment on the program.

Yours truly,
P.F. Shaw
2217 Camas Ave, Richland, WA 99352_1905 17

Response to Commentor No. 1775

1775-1: DOE notes the commentor's support for Alternative 1, Restart FFTF. It should be pointed out that food irradiation is not in scope of the PEIS.

1775-2: FFTF was closed due to cost considerations arising from cancellation of liquid metal fast reactor programs (which were key elements in closed fuel cycle and actinide waste disposal technology development), and the projected availability of other irradiation facilities to meet DOE's mission requirements. DOE does not agree that the shutdown of these programs was a failure and destroyed the U.S. world leadership position in nuclear technology. The programs were successfully shutdown, and the associated facilities now are either being shutdown or considered for potential use (as in the case of FFTF) in programs that meet DOE mission needs and are compliant with U.S. nonproliferation policy.

Commentor No. 1777: Christine Eide

From: Christine Eide
[SMTP:GCHRIS@ONEWORLD.OWT.COM]
Sent: Monday, September 18, 2000 6:08:29 PM
To: INFRASTRUCTURE_PEIS, NUCLEAR
Subject: FFTF Restart
Auto forwarded by a Rule

It is obvious from the PEIS and following documents that restarting the FFTF is the best choice. **1777-1**
Please restart FFTF.

Christine Eide
gchris@oneworld.owt.com

Response to Commentor No. 1777

1777-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

Commentor No. 1778: Marilee Henry and Jeffrey Thorson

From: Jeff Thorson[SMTP:THORSH@HALCYON.COM]
Sent: Monday, September 18, 2000 6:24:14 PM
To: INFRASTRUCTURE_PEIS, NUCLEAR
Subject: SHUT DOWN HANFORD'S FFTF REACTOR!
Auto forwarded by a Rule

To: Colette E. Brown, US Department of Energy

WE have heard that the Department of Energy is considering restarting the FFTF Nuclear Reactor at Hanford, Washington, to produce research medical isotopes and plutonium_238. **1778-1**

WE ARE COMPLETELY OPPOSED TO THIS PLAN !!!

***Currently Hanford is one of THE MOST CONTAMINATED SITES in this country. There is already a plume of highly toxic substances leaking from this site threatening pollution of the entire Columbia River system. The efforts to clean up Hanford have been costly and ineffective. WE DO NOT NEED TO ADD TO THE WASTES ALREADY THERE!!! **1778-2**

***Restarting the FFTF Nuclear Reactor would delay already tardy clean_up efforts!!!

***Demand for medical isotopes can be met using currently operating facilities in other regions. **1778-3**

***The Department of Energy has NOT fulfilled its responsibility to protect the populace, wildlife, and water resources of Washington State from the dangers of Hanford Nuclear operations in the past; there is no reason to believe they will do so for future operations. **1778-2**

We want the FFTF to be completely shut down, and Hanford and its plume contained/cleaned_up FIRST, before any consideration can be given to future use. CLEAN UP YOUR MESS!!! **1778-4** **1778-2**

Marilee Henry and Jeffrey Thorson
14042 _ 97th Ave. N.E., Bothell, Wa. 98011

Response to Commentor No. 1778

1778-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF, and support for Alternative 5, Permanently Deactivate FFTF.

1778-2: Restoration of the Hanford Site and waste management activities are the primary missions at Hanford.

Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement.

Management of wastes that would be generated under implementation of Alternative 1, Restart FFTF, is discussed in Section 4.3 of Volume 1 (e.g., see Section 4.3.1.1.13). Section 4.3.1.1.13 was revised to clarify that, the Hanford waste management infrastructure is analyzed in this PEIS for the management of waste resulting from FFTF restart and operation. This analysis is consistent with policy and DOE Order 435.1, that DOE radioactive waste shall be treated, stored, and in the case of low-level waste, disposed of at the site where the waste is generated, if practical; or at another DOE facility. However, if DOE determines that use of the Hanford waste management infrastructure or other DOE sites is not practical or cost effective, DOE may issue an exemption under DOE Order 435.1 for the use of non-DOE facilities (i.e., commercial facilities) to store, treat, and dispose of such waste generated from the restart and operation of FFTF. In addition, Section 4.3.3.1.13 and 4.4.3.1.13 also address the potential impacts associated with the waste generated from the target fabrication and processing in FMEF and how this waste would be managed at the site.

1778-3: The United States currently purchases approximately 90 percent of its medical isotopes from foreign producers, most notably Canada. However, Canada only supplies a limited number of economically attractive commercial isotopes (primarily molybdenum-99), and it does not supply research isotopes or the diverse array of medical and industrial isotopes considered in the NI PEIS. As such, reliance on Canadian sources of isotopes to satisfy projected U.S. isotope needs would not meet DOE's mission requirements.

Commentor No. 1778: Marilee Henry and Jeffrey Thorson (Cont'd)

Response to Commentor No. 1778

Currently, approximately 50 percent of DOE's isotope production capability is being used. Much of the remaining isotope production capability is dispersed throughout the DOE complex. This capability supports secondary missions, but cannot be effectively used due to the operating constraints associated with the facilities' primary missions basic energy sciences or defense). DOE is currently meeting most of its short-term requirements. However, in the long-term (next 5 to 10 years) there will be a shortfall in available DOE capacity to meet demand. Should the isotope demand grow consistent with the Expert Panel Report, as it has recently, or if DOE's market share increases, there will be a need for expanded isotope production capacity in the short-term (less than 5 years). Section 1.2.1 of Volume 1 has been revised to clarify DOE's isotope production role and other producers' capabilities to fulfill U.S. isotope needs.

1778-4: See response to comment 1778-1.

Commentor No. 1779: Norm Buske

From: Norm Buske[SMTP:SEARCH@IGC.ORG]
Sent: Monday, September 18, 2000 6:56:57 PM
To: INFRASTRUCTURE_PEIS, NUCLEAR
Subject: Comment: NI PEIS
Auto forwarded by a Rule

To: Colette Brown 9/18/00
Fm: Norm Buske, Nuclear_weapons_free America
Subj: Comment: NI PEIS

Dear Ms Brown:

At the PEIS Scoping Hearings, you asked what the public wanted included in the PEIS. I asked for the impact of the products of FFTF if the reactor undertook modern nuclear weapons material production on an "activity" rather than a "mission" basis.

You failed to provide that likely activity impact in the PEIS.

I asked again for that impact at your Seattle hearing on August 30, 2000. Although you might not have heard, because you walked away as I was commenting...

Anyway, the first two sentences of Sec. 2.3.1.1.3 of the NI PEIS (p.2.13) state that FFTF would only use "one quarter of reactor design power level to meet the irradiation requirements of the proposed missions. Periodic increases in power level between 100 and 400 megawatts may be required to support nuclear research and development activities." **1779-1**

Neutrons produced by a reactor at quarter power level are expensive. So there is economic virtue in having other "required activities" that would use up to three times the power of the stated mission activities for FFTF.

But that implies FFTF is really being restarted on pretext missions while it's "required activities" are clandestine.

Response to Commentor No. 1779

1779-1: DOE notes the commentor's views. The NI PEIS evaluates a range of reasonable alternatives for expanding DOE's existing nuclear facility infrastructure for the purposes of addressing three primary needs: 1) to support the need for increased domestic production of isotopes for medical, research, and industrial uses, as initially identified by a panel of experts in the medical field and reaffirmed by the Nuclear Energy Research Advisory Committee; 2) to support future NASA space exploration missions by reestablishing a domestic capability to produce plutonium-238, a fuel source that is required for deep space missions and that the United States has no long-term, assured supply; and 3) to support civilian nuclear research and development needs in order to maintain the clean, safe, and reliable use of nuclear power as a viable component of the U.S. energy portfolio. No component of the proposed action is for the purpose of supporting any defense or weapons-related missions or activities. The environmental impacts examined in this NI PEIS are those related to the stated missions/activities.

Commentor No. 1779: Norm Buske (Cont'd)

This concern has come up increasingly during the EIS hearings. To many people, it is now clear that DOE seeks to restart FFTF on any civilian mission mix it can pretend is viable, and then to go into clandestine production of special nuclear weapons materials.

The FFTF reactor is the only reactor in the DOE complex presently suitable for clandestine weapons material production in significant quantities for deployment and use on the nuclear battlefield.

I request once again that the Final EIS include a range of likely environmental impacts from the use of such generic, "necessary activities" products of FFTF operation. **1779-1**

As deployment of a new generation of American nuclear weapons can be expected to have proliferation and other de_stabilizing consequences. Thus, I also request you include in the Final EIS, environmental impact scenarios in which weapons comparable to those from FFTF_produced, special nuclear materials are used against a range of American cities and other targets.

With my thanks again for your consideration,
Norm Buske
Nuclear_Weapons_Free America

Response to Commentor No. 1779

Commentor No. 1781: Gary E. Richardson

From: Gary Richardson
[SMTP:GARY@SNAKERIVERALLIANCE.ORG]
Sent: Monday, September 18, 2000 7:18:49 PM
To: INFRASTRUCTURE_PEIS, NUCLEAR
Subject: comment
Auto forwarded by a Rule
Sept. 18, 2000
Ms. Colette Brown
DOE, Office of Space and Defense Power Systems

Re: Draft Programmatic Environmental Impact Statement for accomplishing expanded civilian nuclear energy research and development and isotope production mission in the United States, including the role of the Fast Flux Test Facility

Dear Ms. Brown:

How is it that the federal agency that employs some of the best minds on the planet consistently come up with the most hair_brained schemes to try to justify continuing the production and proliferation of some of the most deadly, dangerous and unnecessary substances known to man?

Instead of trying to come up with new missions for obsolete, discredited and environmentally problematic facilities like the FFTF at Hanford and Building 666 at INEEL, shut them down and get on with the only jobs left for the DOE that make common sense: Clean up the mess left from half a century of playing with nuclear "fire" and develop clean alternative energy resources for the future. **1781-1** **1781-2**

I favor Alternative 5 of the PEIS and shut down of the FFTF. Please, do not create another project that will add to the already overwhelming amount of nuclear waste sitting above and leaching into the Snake River Aquifer at INEEL. Thank you for the opportunity to comment on this proposed plan. **1781-1** **1781-3**

Sincerely,
Gary E Richardson
746 Santa Paula Ct., Boise, ID 83712

Response to Commentor No. 1781

1781-1: DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF. The FFTF reactor was constructed and initiated operation in the mid 1980s, making it DOE's newest reactor. It has no structural flaws that would prevent safe operations. As stated in Volume 1, Section 2.3.1.1.2, several upgrades would be implemented if a decision to restart FFTF was made by DOE. These upgrades would improve efficiency and reliability, minimize waste, and conform to current industry standards. Throughout the life of FFTF, the FSAR has been maintained via approved change control and engineering change notices. All updates and revisions have had the required reviews and approvals. No deficiencies in the FFTF design, analysis, facility condition, or operations have been identified or recognized that would prevent FFTF from meeting the safety objectives and intent of commercial nuclear safety regulations for equivalent facilities. If the Record of Decision concludes that FFTF should be restarted, a Probabilistic Risk Assessment would be completed and a new FSAR would be prepared in accordance with applicable regulations.

Building CPP-666 is divided into two parts, the Fuel Storage Facility and the Fluorinel Dissolution Process Facility (FDPF). The FDPF is under consideration in this PEIS for storage of neptunium-237 oxide, preparation of neptunium-237 targets, and separation of plutonium-238 from irradiated targets.

DOE believes that FFTF and FDPF will meet, with further analysis and/or minor modifications, the criteria to safely conduct these operations for the 35 year time period being considered in the NI PEIS.

1781-2: DOE notes the commentor's interest in alternative energy sources and concern over nuclear waste, although the issue of the cleanup of existing nuclear waste sites is beyond the scope of this Nuclear Infrastructure PEIS. The DOE missions to be addressed in this EIS, which include the production of medical and industrial isotopes, the production of plutonium-238, and civilian nuclear energy research and development, can currently only be met using nuclear reactor or accelerator technologies.

As discussed in Chapter 4 of Volume 1 (e.g. sections 4.3.1.1.13, 4.3.2.1.13, 4.3.3.1.13), waste will be generated by all of the proposed alternatives including the No Action Alternative. The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed actions for all alternatives and

alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision. DOE activities associated with this program would not impact schedule or available funding for existing cleanup activities at candidate sites for implementation of the nuclear infrastructure alternatives.

1781-3: The commentor's position on generation of additional waste at INEEL is noted. Waste generation that would result from implementation of nuclear infrastructure alternatives concerned with the Fluorinel Dissolution Process Facility and/or the Advanced Test Reactor are discussed in Sections 4.3.2.1.13 and 4.4.1.1.13. Localized radiochemical and chemical plumes in the Snake River Plain Aquifer at INEEL are described in Volume 1, Section 3.3.4.2.2. Tritium and strontium-90 plumes in the aquifer are the result of historical waste disposal practices at INEEL. Waste that would result from implementation of the nuclear infrastructure alternatives would be dispositioned in compliance with current waste management procedures at INEEL, and would not be expected to contaminate the Snake River Plain aquifer.

Commentor No. 1782: Mary and Gregory Dyson

From: Dyson[SMTP:DYSE@TELEPORT.COM]
Sent: Monday, September 18, 2000 7:41:26 PM
To: INFRASTRUCTURE_PEIS, NUCLEAR
Subject: Nuclear Infrastructure PEIS
Auto forwarded by a Rule

Dear Ms. Brown,

We, like many other residents of the Northwest, oppose the proposed restart of the FFTF Nuclear reactor. Not only do a large number of residents oppose this proposal, but our elected officials do as well. **1782-1**

Hanford already has billions of gallons of high_level radioactive waste that DOE has not dealt with. Hanford is th emost polluted site in the Western Hemisphere. Hanford needs to be cleaned up now, prior to any talks of starting new activity. Where will new waste go if the FFTF reactor is restarted? The DOE needs to clean_up the site to gain the trust of Northwest residents. Why is the DOE continually ignoring our wishes? **1782-2** **1782-3** **1782-2**

The DOE has failed to demonstrate a need for the production of plutonium. We know there are a few, vocal people who think medical isotopes will save their loved ones suffering from cancer. What they fail to understand is that the polluted mess that is Hanford is causing cancer in many more people than medical isotopes can ever save. While we sympathize with the pain and suffering that cancer causes, we cannot advocate for a treatment that poses countless risks. In addition, NASA's current demandfor plutonium is much lower than you project and can easily be met with current contracts. If the demand can not be met, NASA needs to re_evaluate their space program that places citizens at risk of cancer from polluted nuclear sites. **1782-4** **1782-5** **1782-4** **1782-6**

We want the DOE to release the numerical breakdown of the comments you have received _ both for and against _ so that Secretary Richardson is clear where residents of the Northwest **1782-7**

Response to Commentor No. 1782

1782-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF, and support for Alternative 5, Permanently Deactivate FFTF.

1782-2: DOE notes the commentor's concern regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The DOE missions delineated in the NI PEIS would not have an impact on Hanford cleanup activities.

There are currently 53 million gallons of waste stored in underground storage tanks on the Hanford Site. Treatment of this waste has already been determined. None of the DOE missions considered by this PEIS will add to this volume of waste.

DOE is using this opportunity to solicit public comment on this NI PEIS.

1782-3: Management of wastes that would be generated under implementation of Alternative 1, Restart FFTF, is discussed in Section 4.3 of Volume 1 (e.g., see Section 4.3.1.1.13). Section 4.3.1.1.13 was revised to clarify that, the Hanford waste management infrastructure is analyzed in this PEIS for the management of waste resulting from FFTF restart and operation. This analysis is consistent with policy and DOE Order 435.1, that DOE radioactive waste shall be treated, stored, and in the case of low-level waste, disposed of at the site where the waste is generated, if practical; or at another DOE facility. However, if DOE determines that use of the Hanford waste management infrastructure or other DOE sites is not practical or cost effective, DOE may issue an exemption under DOE Order 435.1 for the use of non-DOE facilities (i.e., commercial facilities) to store, treat, and dispose of such waste generated from the restart and operation of FFTF. In addition, Section 4.3.3.1.13 and 4.4.3.1.13 also address the potential impacts associated with the waste generated from the target fabrication and processing in FMEF and how this waste would be managed at the site.

1782-4: DOE notes the commentor's views. Through a Memorandum of Understanding with NASA, DOE provides radioisotope power systems,

stand. You need to also include in your numbers, the City Councils that have passed resolutions against FFTF restart. **1782-7 (Cont'd)**

The No Action Alternative must include the shutdown of FFTF instead of maintaining it on a stand_by basis. USDOE should chose alternative 5 _ shut down FFTF. **1782-8** **1782-9**

Thank you,

Mary and Gregory Dyson
232 NE Stanton St.
Portland, OR 97212

and the plutonium-238 that fuels them, for space missions that require or would be enhanced by their use. In addition, under the National Space Policy issued by the Office of Science and Technology Policy in September 1996, and consistent with DOE's charter under the Atomic Energy Act, DOE is responsible for maintaining the capability to provide the plutonium-238 needed to support these missions. There are approximately 9 kilograms of plutonium-238 in the U.S. inventory available to support future NASA space missions; no viable alternative to using plutonium-238 to support these missions currently exists. DOE could purchase plutonium-238 from Russia; however, for supply reliability reasons and concern of nuclear nonproliferation, DOE's preference is to establish a domestic plutonium-238 production capability. Section 1.2.2 of Volume 1 was revised to further clarify the purpose and need for reestablishing a domestic plutonium-238 production capability to support NASA space exploration missions.

A May 22, 2000, correspondence from NASA to DOE identified that NASA no longer has a planned requirement for small radioisotope thermoelectric generator (SRTG) power systems. This does not mean that NASA no longer requires DOE to provide the necessary plutonium-238 to support deep space missions. Rather, the suspension of SRTG development efforts was conducted in order to permit reprogramming of funds to support development of a new radioisotope power system based on a Stirling technology generator. This new radioisotope power system, referred to in the subject correspondence, requires 1/3 less plutonium as its fuel source. However, the Stirling technology is developmental and NASA has requested in a September 22, 2000 letter to DOE that the plutonium-238 needed for large RTG may be maintained as a backup.

1782-5: DOE notes the commentor's concerns regarding ongoing activities to remediate the existing contamination at Hanford. The Hanford Site environmental restoration activities are high priority to DOE and are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The NI program would not impact the schedule or available funding for existing cleanup activities.

The NI PEIS evaluated the maximum cumulative radiation exposure to the public from all reasonably foreseeable Hanford Site activities, including

Commentor No. 1782: Mary and Gregory Dyson (Cont'd)

Response to Commentor No. 1782

future waste management and remediation activities (see section 4.8.3.3), over the 35-year time-frame of NI-related activities. As shown in Table 4-173, the dose to the maximally exposed individual would be expected to remain well within regulatory limits. Based on an exposure period of 35 years, 0.21 (<1) latent cancer fatalities would be expected to occur among the local population over the 35-year period as a result of Hanford related radiation exposure.

The annual doses to the public from the Hanford site and proposed NI PEIS activities above are insignificant. For perspective, the radiation dose the average American receives from natural sources is about 300 mrem each year. Based on the same 35 year time period used above, approximately 2,000 latent cancer fatalities would be expected among the same population as a result of natural (non-Hanford related) radiation exposure. In that same 35 years, about 19,000 cancer fatalities from all causes would be expected in the same population.

1782-6: DOE notes the commentor's concern for NASA's use of nuclear materials for space missions, although this issue is beyond the scope of this PEIS. Through a Memorandum of Understanding with NASA, DOE provides radioisotope power systems, and the plutonium-238 that fuels them, for space missions that require or would be enhanced by their use. These radioisotope power systems have been used for almost 40 years, and have repeatedly demonstrated their performance, safety, and reliability in various NASA space missions. NASA establishes the need and requirements for space missions and undergoes a thorough NEPA evaluation for each launch.

1782-7: In preparing the Final PEIS, DOE has assessed and considered both oral and written comments received on the Draft PEIS during the public comment period and has responded to these comments in the Final PEIS. Volume 3 of the NI PEIS contains public comments received on the NI PEIS and DOE responses to those comments. These comments are summarized, tabulated, and cross-referenced by commentor, category, and method of submission. A summary discussion is also provided of the overall prevailing issues raised during the public comment period.

1782-8: The No Action alternative is required under Council on Environmental Quality regulations (40 CFR 1502.14(d)). It provides a point of comparison for the action alternatives. The No Action Alternative generally represents the status quo; that is, it includes those actions that

would normally take place without the proposed action. Since the status quo involves maintaining FFTF in standby and not its deactivation, it is not appropriate to include its deactivation as part of the No Action Alternative. Deactivation of FFTF is included as Alternative 5, Permanently Deactivate FFTF, and as part of Alternative 2, Use Only Existing Operational Facilities, Alternative 3, Construct New Accelerator(s), and Alternative 4, Construct New Research Reactor.

1782-9: See response to comment 1782-1

Commentor No. 1783: Barbara Lyons

From: clyde hill[SMTP:PLUMBUTTER@USA.NET]
Sent: Monday, September 18, 2000 8:52:02 PM
To: INFRASTRUCTURE_PEIS, NUCLEAR
Subject: FFTF Reactor
Auto forwarded by a Rule

Hello: thank you for taking public comment on the plan to restart the FFTFreactor at Hanford. It sounded like a humanitarian idea, to make plutonium for medical purposes. However, we already know that the DOE is capable of concealing the truth when it comes to pollution. For example, you said that there was no pollution after the recent wildfires, and then you had to admit that it was 1000 times higher than normal. At least, someone said it ws that high. I don't really trust your statements, because you seem to want to always reassure people instead of telling the truth. I'm opposed to starting this reactor again. The reactor would not produce the right kind of isotopes, is inefficient, and creates more pollution. There isn't a scientific basis for establishing a crying need for these isotopes at the present time, either. I suppose you want to keep the reactor going, just in case, because you think it is a shame to get rid of something that works. however, this eactor should be scrapped and the whole area should be cleaned up before we have more disasters. Public safety should be more important right now. thank you for your time.
Sincerely,
Barbara Lyons 614 North 100th, Seattle, Washington 98133.

1783-1
1783-2
1783-3 1783-4
1783-3
1783-1

Response to Commentor No. 1783

1783-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF, and concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. FFTF restart would not impact the cleanup missions at Hanford.

No radioactive materials were "released" in the Hanford Wildfires of 2000. Wildfires did resuspend some materials already in the environment. The resuspended materials were low, slightly above natural background levels. Real-time monitoring instruments cannot detect environmental levels of contaminants. The low levels required several days of analysis to quantify. DOE publicly reported monitoring results as they became available.

1783-2: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1783-3: DOE has sought independent analysis of trends in the use of medical isotopes, and of its continuing role in this sector, consistent with its mandates under the Atomic Energy Act. In doing so, it established two expert bodies, the Expert Panel and the NERAC. In 1998, the Expert Panel, which convened to forecast future demand for medical isotopes, estimated that the expected growth rate of medical isotope use during the next 20 years would range from 7 to 14 percent per year for therapeutic applications, and 7 to 16 percent per year for diagnostic applications. These findings were later reviewed and endorsed by NERAC, established in 1999 to provide DOE with expert, objective advice regarding the future form of its isotope research and production activities. DOE has adopted these growth projections as a planning tool for evaluating the potential capability of the existing nuclear facility infrastructure to meet programmatic requirements. In the period since the initial estimates were made, the actual growth of medical isotope use has tracked at levels consistent with the Expert Panel findings. Section 1.2.1 of Volume 1 was revised to incorporate this information and to clarify DOE's role in fulfilling the U.S. research and commercial isotope production needs.

Commentor No. 1783: Barbara Lyons (Cont'd)

Response to Commentor No. 1783

The conclusions presented in the NERAC Subcommittee for Isotope Research and Production Planning Final Report, April 2000 regarding the suitability of FFTF to produce research isotopes in a timely and cost efficient manner were made in the context of the facility producing research isotopes as its sole mission. It would not be cost effective to restart FFTF for the singular purpose of producing small quantities of various research isotopes. However, sustained operation of FFTF for the production of larger quantities of both research and commercial isotopes would be viable if operated in concert with producing plutonium-238 and conducting nuclear energy research and development for civilian applications. As the NERAC report states: "In limited instances, the DOE possesses unique resources, e.g., the high flux of fast neutrons and large irradiation volume in FFTF, that could be utilized for the production of some radioisotopes, but is best suited for commercial interests who might consider its use for isotope production." In recognition of these constraints on its operational feasibility, the NI PEIS only evaluates the use of FFTF when coupled with the other stated missions. While some existing reactors may possess the potential capability or capacity to support research isotope production, as suggested in the NERAC report, it is unlikely that reliable, increased production of these isotopes to support projected needs could be accomplished without impacting the existing missions of these facilities.

1783-4: Potential environment impacts associated with FFTF operations are addressed in detail in Section 4.3 of the NI PEIS. All air emissions and wastewater discharges would be in accordance with applicable permit and regulatory requirements. The release of criteria air pollutants would result in concentrations well below Federal and state air standards (Table 4-13). The release of radioactivity hazardous chemicals into the atmosphere would have a negligible effect on human health (Tables 4-17 and 4-19). There would be no discernible impacts to groundwater or surface water quality (Section 4.3.1.1.4). It is concluded that operation of FFTF would result in small impacts to the biosphere and not contribute to pollution of the environment.

Commentor No. 1784: Matthew Witt

From: Matthew Witt[SMTP:MWITT@HEVANET.COM]
Sent: Monday, September 18, 2000 9:18:12 PM
To: INFRASTRUCTURE_PEIS, NUCLEAR
Subject: keep Hanford shut down!
Auto forwarded by a Rule

To Whom it may concern:

I agree with Senator Hatfield's position on the FFTF. Also, NASA doesn't reports it has no use for Plutonium 238 at this time, and the DOE's own blue ribbon commission dismisses the usefulness of the FTFF for producing medical isotopes. Why, then, is it still being considered?? **1784-1**

Where is the DOE's accountability on this issue? Either a full accounting of FFTF stakeholder interests must be provided the American public, or Hanford, a source of significant anxiety for anyone who knows anything about it, must remain shut down. **1784-2**

Respectfully,

Matthew Witt
1611 NW 32nd Ave.
Portland, OR 97210

Response to Commentor No. 1784

1784-1: DOE notes the commentor's views about FFTF and its use for the production of both medical isotopes and plutonium-238 for use in future NASA space exploration missions. Through a Memorandum of Understanding with NASA, DOE provides radioisotope power systems, and the plutonium-238 that fuels them, for space missions that require or would be enhanced by their use. In addition, under the National Space Policy issued by the Office of Science and Technology Policy in September 1996, and consistent with DOE's charter under the Atomic Energy Act, DOE is responsible for maintaining the capability to provide the plutonium-238 needed to support these missions. There are approximately 9 kilograms (19.8 pounds) of plutonium-238 in the U.S. inventory available to support future NASA space missions. Although research to identify other potential fuel sources to support these space exploration missions has been conducted, no viable alternative to using plutonium-238 has been established. Based on NASA guidance to DOE on the potential use of radioisotope power systems for upcoming space missions, it is anticipated that the existing plutonium-238 inventory will be exhausted by approximately 2005. Without an assured domestic supply of plutonium-238, DOE's ability to support future NASA space exploration missions may be lost. Section 1.2.2 of Volume 1 was revised to further clarify the purpose and need for reestablishing a domestic plutonium-238 production capability to support NASA space exploration missions.

A May 22, 2000, correspondence from NASA to DOE identified that NASA no longer has a planned requirement for small radioisotope thermoelectric generator (SRTG) power systems. This does not mean that NASA no longer requires DOE to provide the necessary plutonium-238 to support deep space missions. Rather, the suspension of SRTG development efforts was conducted in order to permit reprogramming of funds to support development of a new radioisotope power system based on a Stirling technology generator. This new radioisotope power system, referred to in the subject correspondence, requires one-third less plutonium-238 as its fuel source. However, the Stirling technology is developmental and NASA has requested in a September 22, 2000, letter to DOE that large RTGs be maintained as backup. Section 1.2.2 was revised to clarify plutonium-238 mission needs.

DOE has sought independent analysis of trends in the use of medical isotopes, and of its continuing role in this sector, consistent with its mandates under the Atomic Energy Act. In doing so, it established two expert bodies, the Expert Panel and the NERAC. In 1998, the Expert

Panel, which convened to forecast future demand for medical isotopes, estimated that the expected growth rate of medical isotope use during the next 20 years would range from 7 to 14 percent per year for therapeutic applications, and 7 to 16 percent per year for diagnostic applications. These findings were later reviewed and endorsed by NERAC, established in 1999 to provide DOE with expert, objective advice regarding the future form of its isotope research and production activities. DOE has adopted these growth projections as a planning tool for evaluating the potential capability of the existing nuclear facility infrastructure to meet programmatic requirements. In the period since the initial estimates were made, the actual growth of medical isotope use has tracked at levels consistent with the Expert Panel findings. Section 1.2.1 of Volume 1 was revised to incorporate this information and to clarify DOE's role in fulfilling the U.S. research and commercial isotope production needs.

The conclusions presented in the NERAC Subcommittee for Isotope Research and Production Planning Final Report, April 2000 regarding the suitability of FFTF to produce research isotopes in a timely and cost efficient manner were made in the context of the facility producing research isotopes as its sole mission. It would not be cost effective to restart FFTF for the singular purpose of producing small quantities of various research isotopes. However, sustained operation of FFTF for the production of larger quantities of both research and commercial isotopes would be viable if operated in concert with producing plutonium-238 and conducting nuclear energy research and development for civilian applications. As the NERAC report states: "In limited instances, the DOE possesses unique resources, e.g., the high flux of fast neutrons and large irradiation volume in FFTF, that could be utilized for the production of some radioisotopes, but is best suited for commercial interests who might consider its use for isotope production." In recognition of these constraints on its operational feasibility, the NI PEIS only evaluates the use of FFTF when coupled with the other stated missions. While some existing reactors may possess the potential capability or capacity to support research isotope production, as suggested in the NERAC report, it is unlikely that reliable, increased production of these isotopes to support projected needs could be accomplished without impacting the existing missions of these facilities.

Commentor No. 1784: Matthew Witt (Cont'd)

Response to Commentor No. 1784

1784-2: DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF, although the commentor should note that the reactor is presently in a standby mode and has not been permanently deactivated.

Commentor No. 1785: Tamera Simonson

From: Biker Cub[SMTP:BIKERCUB@NETZERO.NET]
Sent: Monday, September 18, 2000 10:00:46 PM
To: INFRASTRUCTURE_PEIS, NUCLEAR
Subject: REACTORS
Auto forwarded by a Rule

Dear Colette Brown,

DO NOT START UP REACTORS CALLED FFTF!!! **1785-1**

Tamera Simonson

Response to Commentor No. 1785

1785-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

Commentor No. 1786: Steve Herring

From: drjsh@srv.net%internet[SMTP:DRJSH@SRV.NET]
Sent: Monday, September 18, 2000 10:41:35 PM
To: INFRASTRUCTURE_PEIS, NUCLEAR
Subject: Comments on PEIS
Auto forwarded by a Rule

Comments on the Programmatic Environmental Impact Statement on Nuclear Infrastructure

I support all three missions contemplated in the PEIS. These missions are vital for continued progress in the fields of nuclear energy and nuclear medicine. However, I feel that the PEIS does not make a fair comparison among the options for the following reasons:

1. The EIS appears to be very comprehensive in identifying the various contributors to public and worker risk. However the costs of the different alternatives all contain the cost of decommissioning FFTF buried within the total costs. It would be much clearer to the public and the decision makers if the costs of decommissioning were separated from the overall cost of the Pu_238 and medical isotope production missions. It seems strange that the costs of decommissioning are NOT included in option 2, alternative 1 which presumes the use of FFTF for the production of Pu_238, but that the costs of decommissioning FFTF ARE included in the options that use other facilities. FFTF and ATR and HFIR will all have to be decommissioned some day, so saddling the other options with FFTF decommissioning costs does not seem any more equitable than including the ATR decommissioning costs in the FFTF option.. **1786-1**

2. The Nuclear Infrastructure Nonproliferation Impact Assessment arrived much too late (Sept. 15) for a reasonable review. However, the conclusion that option 2, alternative 2 is the worst from a proliferation prevention standpoint is very puzzling. All of the options will require the separation of neptunium and/or plutonium from spent fuel and targets for the production of Pu_238. Furthermore, the production of medical isotopes will generally **1786-2**

Response to Commentor No. 1786

1786-1: DOE assumes that the commentor is referring to deactivation, not decommission. Decommission costs were not included for any alternative. Deactivation of FFTF is not part of implementing Alternative 1, Restart FFTF. Deactivation of FFTF is part of implementing Alternatives 2, 3, 4, and 5 and including the cost of FFTF deactivation in the implementation costs for these alternatives is appropriate. The Cost Report was structured to identify the implementation costs of the various alternatives so the Secretary of Energy would have this information along with other data for consideration.

1786-2: While it is true that all alternatives, except for no action, require the separation of neptunium, plutonium, medical, and industrial isotopes, the separate nonproliferation impact assessment report identifies two specific factors which are the major contributors to raise a significant nonproliferation concern for Alternative 2, Option 2. Option 2 uses the FDPF/CPP-651 for plutonium-238 production and storage. Nuclear Infrastructure Nonproliferation Impact Assesment, Section 6.2.2.2, states that FPDF/CPP-651 is currently excluded from international monitoring and may not qualify for an exemption under the Fissile Material Cutoff Treaty. These two factors are the basis for identifying Alternative 2, Option 2 as least favorable from a nonproliferation impact standpoint. The commentor's support of U.S. production of plutonium-238 and medical isotopes as a means to reduce the potential for proliferation is noted.

Commentor No. 1786: Steve Herring (Cont'd)

require the chemical processing of targets. Both represent some proliferation risk. However, the goal of nonproliferation policy is to prevent the spread of weapons' technology to current non_weapons' states. The use of separations technologies in the US (i.e. at the Chem Plant at the INEEL or at Hanford) does not present the transfer of that technology to non_weapons' states. Indeed, if the production of medical isotopes and Pu_238 in the US avoids the need to purchase those isotopes from other, non_weapons', countries, such domestic production would serve to reduce the potential for proliferation. **1786-2 (Cont'd)**

3. The choice of alternative reactors focuses on future needs for steady_state irradiation facilities, such as FFTF and ATR. However, there is a continuing need for transient irradiation, such as in the testing of new fuels. Steady_state reactors cannot perform the transient tests needed to show that new, proliferation_resistant fuels can operate safely under a variety of operating conditions. These testing needs can be met by TREAT at ANL_W and perhaps by the ACRR at Sandia. If the PEIS is really to encompass the infrastructure needs of nuclear research, then transient testing requirements should be addressed. **1786-3**

From a comparison of the risk profiles, it appears that the preferred alternative is Option 2, Alternative 2, i.e. the use of ATR and the FDPF/CPP651 facilities for the production of Pu_238 and medical isotopes. **1786-4**

Thank you,

Steve Herring
298 Call Avenue
Idaho Falls, Idaho 83402

Response to Commentor No. 1786

1786-3: As stated in Section 1.2.3 of Volume 1, transient conditions are one of the requirements for nuclear fuel research. The ACRR is operational and available for testing new fuels with transient irradiation. TREAT could also be restarted without NEPA action to support transient irradiation tests of new fuels.

The purpose of this NI PEIS is to evaluate the environmental impacts of all reasonable alternatives capable of supplying steady state neutron streams to fulfill the requirements of the missions described in Section 1.2 of Volume 1, which include production of medical and industrial isotopes, production of plutonium-238 for NASA space missions, and civilian nuclear research and development. The Record of Decision will be based on a number of factors that include environmental impacts, public input, costs, nonproliferation impacts, schedules, technical assurance, and other policy and programmatic objectives.

1786-4: DOE notes the commentor's support for Option 2 of Alternative 2, Use Only Existing Operationa l Facilities. It should be noted that the preferred alternative need not be the alternative with the least environmental impacts.

Commentor No. 1787: Steve Hiller

From: Steve Hiller[SMTP:SWHILLER@TELEVAR.COM]
Sent: Tuesday, September 19, 2000 1:32:44 AM
To: INFRASTRUCTURE_PEIS, NUCLEAR
Cc: senator_murray@murray.senate.gov%internet; locke2000@garylocke.com%internet
Subject: NUCLEAR INFRASTRUCTURE PEIS
Auto forwarded by a Rule

To: Colette Brown, NE_50
US Dept. of Energy

CC: Slade Gorton, US Senator
Patty Murray, US Senator
Doc Hastings, US Representative
Gary Locke, Washington State Governor

I have a few comments regarding the Nuclear Infrastructure PEIS:

I would like to see the FMEF facility, located adjacent to the FFTF, used in conjunction with the FFTF for the preparation and recovery of isotopes. This would allow all operations, especially those where time is critical, to be performed in one area. This would minimize greatly the time and more importantly the risk of transporting the materials between the isotope labs and the reactor. This would require some additional monies up front, but I believe that in the long run this would be the most cost effective by far and clearly the most sensible approach with regard to safety. **1787-1**

The second thing I would like to see is the listing of nonproliferation type activities as an actual mission to be included with the restart of the FFTF facility. There are significant quantities of plutonium and uranium, domestic and foreign (e.g., SNR300 fuel) that can be taken away from any kind of threat by operation of the FFTF. There is clearly a big international bonus and plus to this option and with the uncertainty in the world today, this would be an important and significant mission _ removing attractive special nuclear materials from the worlds stockpiles and transmuting them to an **1787-2**

Response to Commentor No. 1787

1787-1: DOE notes the commentor's support for Options 3 and 6 of Alternative 1, Restart FFTF.

1787-2: As the commentor correctly pointed out, use of the Hanford MOX fuel would dispose of a significant U.S. stockpile of highly attractive fresh plutonium fuel by conversion to spent fuel through irradiation in FFTF. This represents a safe, low-cost, high benefit opportunity to reduce U.S. civilian plutonium without chemical or bulk processing. Use of the German MOX also represents a similar advantage with respect to the German stockpile of separated civilian plutonium. In addition, use of the German MOX would also extend the time for any research for designing a new low enriched uranium fuel for use at FFTF, and delay the need to produce HEU for the FFTF.

Commentor No. 1787: Steve Hiller (Cont'd)

unrecoverable status as far as weapons are concerned is a major plus and should be listed as an actual mission of the facility. Not only transmuting the material but getting significant use for the general public at the same time makes this a very attractive means. **1787-2 (Cont'd)**

I would very much like to see the restart of the FFTF for the production of medical, industrial, research and space isotopes. I think that an acceptable approach due to the availability and cost effectiveness of the FFTF is to restart this facility and then go into a long term plan for its replacement which could then be to bring on line an accelerator or another reactor in the next 20 years to pick up from FFTF and to ensure long range isotope production. When you are talking a program of this size with the projected growth predicted, 20 years off is not that far away and therefore this becomes a very attractive alternative. Now (today), it only makes sense to go with one facility and the one that is already built with a proven operating history, but the day will come that a replacement and even sooner, a sister facility, would be needed. The time is available then to fully develop an acceptable replacement for the FFTF some 25 to 30+ years down the road. The DOE and our government must start thinking in more long term actions instead of just the current fiscal year driving all our decisions. **1787-1**

Issues with the impact to Hanford Clean_up with the restart of FFTF need to be addressed and shown that first there is no real impact. FFTF does not produce any high level waste and that the spent fuel will be shipped to a repository with the fuel being held at FFTF until this facility is ready to receive spent fuel (FFTF has the capacity, so no impact to other facilities at Hanford). This reduced concern with Hanford Clean_up and the thousands of lives that will be provided a significantly higher quality of life with medical isotopes should make the preferred alternative obvious to being the restart of the FFTF.

I would also like to see something that discusses external regulation of the FFTF. This seems to occasionally get some concern based on DOE operating the facility and being their own regulator and police _ which some perceive the do poorly at due to budget **1787-3**

Response to Commentor No. 1787

1787-3: DOE notes the commentor's support for Alternative 1, Restart FFTF. The purpose of this NI PEIS is to evaluate the environmental impacts of a range of reasonable alternatives to fulfill the requirements of the DOE missions, which include the production of medical and industrial isotopes, the production of plutonium-238 for future NASA missions, and civilian nuclear research and development. The Record of Decision for the NI PEIS will be based on a number of factors including environmental impacts, public input, costs, nonproliferation impacts, schedules, technical assurance, and other policy and programmatic objectives.

With respect to external regulation, on February 19, 1999, Secretary Bill Richardson sent a letter to Senator John Warner, Chairman of the Committee on Armed Services to inform him of DOE's efforts in exploring a potential move toward the external regulation of DOE's nuclear facilities. Secretary Richardson reported that, based on DOE's analysis, many of the potential benefits that were expected from external regulation had not been demonstrated, and appear to be outweighed by associated costs and difficulties raised in the pilot projects. As a result, DOE had determined that submittal of legislation to exempt certain facilities from Departmental regulations was premature. It should be noted that FFTF meets all safety requirements established by DOE and the DOE requirements are consistent with those established and applied by other regulatory agencies such as the Nuclear Regulatory Commission.

Commentor No. 1787: Steve Hiller (Cont'd)

constraints and missions goals. It should be made clear that the FFTF would be operated outside the Hanford mission (maybe more associated with the PNNL research activities) and that an outside regulator, most likely the NRC, would be responsible for this aspect of the operation. I think this approach would put a lot of concerned peoples minds at ease and take some wind out of the sails of the anti_nuke, anti_DOE and anti_FFTF contingency. This would make the whole process of restarting FFTF more palatable for many. **1787-3 (Cont'd)**

Thank you so much for considering my recommendations/suggestions. I am very much for the restart of the FFTF for an isotope mission and think any decision that would shutdown this fine irradiation facility would be a complete misuse of government funds and assets. Thank you again for the opportunity to respond and looking forward to your decision to move forward with the restart of this proven, dependable source of irradiation services and testing. **1787-1**

Steve Hiller
5310 W. 25th Avenue
Kennewick, WA 99338
(509) 783_3861

Response to Commentor No. 1787

Commentor No. 1788: Les Davenport

From: Les (038) Betty Davenport
[SMTP:DAVENPOR@OWT.COM]
Sent: Tuesday, September 19, 2000 2:07:06 AM
To: INFRASTRUCTURE_PEIS, NUCLEAR
Subject: Comments on NI PEIS
Auto forwarded by a Rule

I support restart of FFTF (Alternative 1, Option 1) for the production of medical and industrial isotopes at Hanford, along with Pu_238 target fabrication, processing & storage at ORNL. The research being done with medical isotopes is so important to all humanity that it is unconscionable to not proceed due to the fears of those that do not understand science or accept the beneficial uses of nuclear. The more recent cost report for alternatives and nonproliferation impact assessment also support using the already existing, safe FFTF. Finally, neutron_rich isotopes produced in a nuclear reactor are much better for production of therapeutic medical isotopes than the neutron_poor isotopes produced in an accelerator. **1788-1**

Les Davenport
1922 Mahan Ave.
Richland, WA 99352

Response to Commentor No. 1788

1788-1: DOE notes the commentor's support for Option 1 of Alternative 1, Restart FFTF. There is no qualitative difference between isotopes produced in an accelerator or a reactor and both are capable of producing medical isotopes in sufficient quantities.

Commentor No. 1789: William J. Stokes

From: StokesWJ@aol.com%internet
[SMTP:STOKESWJ@AOL.COM]
Sent: Tuesday, September 19, 2000 2:43:59 AM
To: INFRASTRUCTURE_PEIS, NUCLEAR
Subject: FFTF PEIS
Auto forwarded by a Rule
See Attached

Ms. Colette E, Brown, NE_50
U.S. Department of Energy, 19901 Germantown Road
September 18, 2000
Germantown, MD 20874

Reference ANMS Letter to Ms C Brown, November 7, 1999
Subject: Nuclear Infrastructure Programmatic EIS Comments

In my referenced letter, I identified three principal issues for the draft PEIS. For brevity, I will not repeat those issues or comments here but still consider the original comments valid and should be addressed in the Final PEIS. In this letter, I would like to address two issues:
* First, the list of Alternatives is not complete, as it does not include the alternative to privatize the FFTF and therefore the cost analysis does not adequately consider reduced costs to the taxpayer from commercialized operations.
* Second the cost analysis ignores the signed agreement ANMS has with SBK for the transfer of the fuel ownership and therefore does not address the cost impact of reconciling ANMS' legal position on the fuel.
*
Privatize FFTF Operations: Privatization of isotope production has been a core mission for DOE and allows the private sector to meet the demands of isotope production and research facility availability at nominal cost and minimal risk to the government. This option is proposed as a new alternative rather than included under Alternative 1 because of the significant differences in potential mission management, cost assessment, policy issues and positive **1789-1**

Response to Commentor No. 1789

1789-1: DOE has not ruled out shared-cost approaches related to future operation of the FFTF, should that facility be restarted. The decision on whether to restart or shutdown that facility is based on many considerations, including cost effectiveness. Cost effectiveness, however, is not evaluated based on the source of funding for those costs, but rather on the effectiveness of the expenditure of funding in meeting critical mission needs. Program participation and cost-sharing would necessarily be considered once a decision was implemented, and the desirability and practicality of such an approach could be definitively evaluated, based on a clear projection of the use of the FFTF.

DOE will continue to seek out partnerships, which are mutually beneficial.

Commentor No. 1789: William J. Stokes (Cont'd)

socio_economic benefit to the community not available under Alternative 1 as described.

The benefits of privatization were reflected in correspondence from WA Governor Gary Locke to then Secretary Pena on April 10, 1997, in which the Governor writes: "This reactor (FFTF) is a valuable asset with an impressive operational record....It is capable of making a valuable contribution to society as well as to community economic development efforts....I support the concept of using the facility for the production of medical isotopes....Further, I feel that privatization could facilitate an expeditious transition to medical isotope production. While I do not endorse any single firm, I urge you to meet with representatives of Advanced Nuclear and Medical Systems (ANMS) at your earliest convenience to discuss the potential of privatization and I trust such a meeting can be arranged."

The range of alternatives identified in the public meeting is insufficient and does not conform to the Council on Environmental Quality guidance, which requires that all reasonable alternatives be evaluated. In determining the scope of alternatives to be considered, the emphasis is on what is "reasonable" rather than on whether the proponent or applicant likes or is itself capable of carrying out as a particular alternative. Reasonable alternatives include "those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant."

Clear and demonstrated evidence has been submitted that privatization of FFTF is a viable alternative from an "economic stand point" and that while it is potential that the government (proponent) may not be able to carry out the alternative, the private sector may be able to. Further, a privatization alternative would provide a basis for equitable comparison of privatization compared to government operations under Alternative 1.

1789-1 (Cont'd)

Response to Commentor No. 1789

Commentor No. 1789: William J. Stokes (Cont'd)

Response to Commentor No. 1789

In correspondence to Secretary Richardson in 1999 and 2000, ANMS has proposed a public private partnership to pay for the cost of restart and initial operations of the facility. The proposal was supported with expressions of interest by a reputable lender for potential investment of $200 million and a pharmaceutical firm interested in relocating their production facilities to Richland, under a commercial operations plan. DOE should vigorously pursue such opportunities consistent with the Administration's initiative to "reinvent" government and include such options in the cost assessment of this EIS

In the Financial Proforma, ANMS used the projected market from the 1997 Frost & Sullivan report cited in the PEIS. The growth rates were approximately 15% per year. The actual growth rates being experienced are higher than the projected. Growth in 1999 alone was 19%. Data from the Proforma was:
* Assumed FFTF only captured portions of the market growth, the capture share of the existing market was zero
* Restart and initials operations loan payback was 20 years, the IRR on the Proforma calculated out to be about 54%

1789-1 (Cont'd)

Although the market growth rate may be on the high side of some estimates, it is well within limits of all projections, and less than current experience. The assumptions on market capture appear conservative and the assumed operational life in the analysis is probably 5_10 years lower than could be expected.

The financial proforma, as reviewed by Compass Group prior to their expression of interest for a $200 Million restart construction loan, indicates a viable and financially attractive commercial project. Evidence of the "reasonableness" of this approach is in the expression of financing interest from Compass and should therefore be included in the cost analysis supporting this PEIS.

The Department of Energy committed to evaluate privatization of operations of the FFTF in the EIS in the July 29_30, 1999 NERAC meeting. This commitment and information which, was provided by

Commentor No. 1789: William J. Stokes (Cont'd)

the DOE FFTF Standby Office managed by PNNL, formed the basis of the NERAC Resolution Regarding the FFTF, recommending that the Secretary proceed toward a record of decision concerning the FFTF.

The NERAC Resolution states: "The specific missions identified by PNNL for FFTF should be further assessed, including a discussion of alternatives and privatization of some or al of the missions."

The committee was responding to the August 1999 Program Scoping Plan for the FFTF, Section 4.1.3.4, "Potential for Privatization" which states: "For the purposes of this plan (PNNL Scoping Plan), privatization was not considered for FFTF reactor operations. However, there have been expressions of interest in privatizing all operations associated with the FFTF by those believing that if DOE was willing to enter into a mutually acceptable long_term facility lease was a private company, private source funding could be obtained to support FFTF restart. During the EIS process for an FFTF restart, if initiated, privatization options will be evaluated for alternative management approaches, including:
* full privatization of FFTF restart and operations,
* etc.
The report also provided the following citation: "Advanced Nuclear & Medical Systems (ANMS) submitted an unsolicited proposal, dated September 1996, to the DOE for the privatization of the FFTF. In July 1997 the DOE notified ANMS that it was premature to consider privatization proposals for the FFTF. However, the DOE indicated that it would consider privatizing the facility if a decision were made to restart it."

ANMS has reiterated our offer to privatize FFTF for the production of medical, industrial and agricultural isotopes. Space would also be made available for research projects as appropriate. In support of our offer, ANMS has provided a letter of interest from a credible financial lender, identifying their interest in providing $200 million in private financing for the restart and operation of the FFTF under a privatization plan. This letter is included in the Appendices of the PNNL Scoping Plan.

1789-1 (Cont'd)

Response to Commentor No. 1789

Commentor No. 1789: William J. Stokes (Cont'd)

ANMS has followed numerous models regarding privatization of existing DOE nuclear facilities, US Enrichment Corporation facilities, privatization of new DOE nuclear facilities, Hanford Tank Waste Immobilization Plant, and models regarding an isotope production and processing complex centered around the production reactor, Petten Holland, otherwise known as Medical Valley.

Privatization of the FFTF for the missions identified has been demonstrated to be reasonable and financially feasible. I also submit that in order to provide the decision_maker with the full range of facts and information necessary to make a Decision, a full consideration and evaluation of the proposed alternative is necessary and required.

1789-1 (Cont'd)

SNR_300 SURPLUS REACTOR FUEL FROM GERMANY

Restart of the FFTF assumes availability of SNR_300 surplus reactor fuel from Germany to support FFTF operations. As DOE has been informed on previous occasions (December 1998, January 1999, July 1999, etc.), ANMS has an agreement in place with SBK for the transfer of this fuel to ANMS for use at FFTF. It is fully reasonable and appropriate to assume this fuel to be available to DOE for use in FFTF, however, the cost analysis must reflect the appropriate cost for this transfer. ANMS has proposed several concepts for the utilization of this asset to promote medical research and further the development of a medical and agricultural isotope processing industry in the local community. Costs used in the PEIS should reflect a negotiated price between ANMS and the DOE for the use of this fuel in the FFTF.

1789-2

Thank you for consideration of our comments. If further discussion or clarification is required, please contact me at 509_946_9900 or 509_946_9800 FAX.

Sincerely,
WILLIAM J. STOKES
William J. Stokes
President

CC: WA State Congressional Delegation
Governor Gary Locke's Office

Response to Commentor No. 1789

1789-2: Costs for the use of SNR-300 (German MOX) reactor fuel were included in the estimated annual operating costs for FFTF. Table 2-3 of the Cost Report shows the cost of operating FFTF using foreign MOX fuel which includes an additional $0.53 million per year for the domestic transport of this fuel from port-of-entry to FFTF. As stated on page 2-7 of the Cost Report, the German MOX fuel was assumed to be available to DOE at no additional cost for fabrication of fuel assemblies. Therefore, only domestic transportation costs would be incurred.

Commentor No. 1790: Dona Hippert

From: Brad Hippert[SMTP:BHIPPERT@TRANSPORT.COM]
Sent: Tuesday, September 19, 2000 2:59:41 AM
To: INFRASTRUCTURE_PEIS, NUCLEAR
Subject: Hanford
Auto forwarded by a Rule

Dear Ms. Brown,,

It was a pleasure to have the opportunity to speak with you in August at the Portland hearing. Thank you for the opportunity to comment on the Hanford situation and for your time in reading the comment. **1790-1**

Dona Hippert
11723 SW 47th Ave.
Portland, OR 97219

September 18, 2000

Ms. Collette Brown, NE_50
US Department of Energy
Office of Nuclear Energy, Science & Technology
19901 Germantown Rd., Room A_270
Germantown, MD 20874

Dear Ms. Brown,

It would be difficult for me to express my opposition to the restarting of the FFTF more eloquently than those who spoke at the Portland public hearing in August. However, I will add my voice to the chorus in hope that the more of us who speak out against the restart, the greater chance we have that the facility will finally be permanently deactivated. Therefore, I will simply echo the main objections to the draft EIS that were brought forward at that meeting.

First, the FFTF is not an economically viable or dependable source for the medical isotopes that are being used as a reason for restarting the FFTF. Existing reactors in Missouri and Tennessee are **1790-2**

Response to Commentor No. 1790

1790-1: DOE notes the commentor's remarks concerning the Portland, Oregon public hearing.

1790-2: DOE has sought independent analysis of trends in the use of medical isotopes, and of its continuing role in this sector, consistent with its mandates under the Atomic Energy Act. In doing so, it established two expert bodies, the Expert Panel and the NERAC. In 1998, the Expert Panel, which convened to forecast future demand for medical isotopes, estimated that the expected growth rate of medical isotope use during the next 20 years would range from 7 to 14 percent per year for therapeutic applications, and 7 to 16 percent per year for diagnostic applications. These findings were later reviewed and endorsed by NERAC, established in 1999 to provide DOE with expert, objective advice regarding the future form of its isotope research and production activities. DOE has adopted these growth projections as a planning tool for evaluating the potential capability of the existing nuclear facility infrastructure to meet programmatic requirements. In the period since the initial estimates were made, the actual growth of medical isotope use has tracked at levels consistent with the Expert Panel findings. Section 1 2.1 of Volume 1 was revised to incorporate this information and to clarify DOE's role in fulfilling the U.S. research and commercial isotope production needs.

The United States currently purchases approximately 90 percent of its medical radioisotopes from foreign producers, most notably Canada. However, Canada only supplies a limited number of economically attractive commercial isotopes (primarily molybdenum-99), and it does not supply research isotopes or the diverse array of medical and industrial isotopes considered in the NI PEIS. As such, reliance on Canadian sources of isotopes to satisfy projected U.S. isotope needs would not meet DOE's mission requirements.

There currently is little room for growth of medical isotope production at either ATR or HFIR. At ATR the neptunium-237 targets for plutonium 238 production will compete for space in the reactor. There are potential negative impacts to the private company that leases reactor space for the production of radioisotopes due to being assigned less desirable irradiation space. At HFIR, the ability to expand medical isotope targets into additional reactor locations is limited by the potential impacts that the targets have on the primary experiments in the reactor. Medical isotope

Commentor No. 1790: Dona Hippert (Cont'd)

better suited for this purpose. Additional capacity to produce these isotopes at the Tennessee reactor and at a reactor in Idaho, along with Canadian sources, assure there will be a sufficient supply. **1790-2 (Cont'd)**
Second, the necessary capacity to produce plutonium 238 for space travel already exists. The DOE must simply remove the constraint that there be a single source to satisfy the needs of all future missions. **1790-3**

Finally, and perhaps most important, any further activity at Hanford would detract from the cleanup of the waste problems that already exist. It is this cleanup that should be the sole priority of the DOE at Hanford. **1790-4**

The assurances of the draft EIS that there would be no great danger in the restart of the FFTF are hard to believe in view of the track record of the nuclear industry. **1790-5** We were right 20 years ago when we voiced our concerns about nuclear waste; the nuclear industry was wrong in its prediction that the waste problem would be solved in short order. **1790-6** Please don't give us the chance to be right again. Deactivate the FFTF permanently now. **1790-7**

Sincerely,

Ms. Dona Hippert

Response to Commentor No. 1790

targets and neptunium-237 targets are not in competition for the same locations in at HFIR.

1790-3: DOE notes the commentor's views. There are approximately only 9 kilograms of plutonium-238 in the U.S. inventory available to support future NASA space missions; no viable alternative to using plutonium-238 to support these missions currently exists. DOE could purchase plutonium-238 from Russia; however, for supply reliability reasons and concern of nuclear nonproliferation, DOE's preference is to establish a domestic plutonium-238 production capability. Section 1.2.2 of Volume 1 was revised to further clarify the purpose and need for reestablishing a domestic plutonium-238 production capability to support NASA space exploration missions.

DOE has no requirement to conduct all three missions at one site. In the Record of Decision process, DOE could choose to combine components of several alternatives in selecting the most appropriate strategy.

1790-4: Restoration of the Hanford Site and waste management activities are the primary missions at Hanford. Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement.

The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

1790-5: FFTF can be safely operated to support the nuclear infrastructure missions described in Section 1.2 of Volume 1. Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that would be expected to result from implementation of Alternative 1, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with restarting FFTF would be small.

Commentor No. 1790: Dona Hippert (Cont'd)

Response to Commentor No. 1790

1790-6: DOE notes the commentor's concern regarding radioactive waste generation. The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed action for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision. The waste generated from any of the proposed alternatives in the NI PEIS will be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders.

1790-7: DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

Commentor No. 1791: Hans Karow

From: Hans Karow[SMTP:CORE@VIP.NET]
Sent: Tuesday, September 19, 2000 3:34:39 AM
To: INFRASTRUCTURE_PEIS, NUCLEAR
Cc: Loring Wirbel; Helen Caldicott; Jonathan Mark; Russell D. Hoffman; Karl Grossman; Regina Hagen; Michio Kaku; globalnet@mindspring.com%internet; globenet@afn.org%internet
Subject: DOE's Draft PEIS
Auto forwarded by a Rule
VIA E _ MAIL
September 18, 2000

Attention:
Mrs. Colette E. Brown

U.S. Department of Energy, NE_50,
19901 Germantown Road, Germantown, MD 20874_1290;
fax (toll_free) 1_877/562_4592; 1_877/562_4593;
E_mail Nuclear.Infrastructure_PEIS@hq.doe.gov

Re: DoE PLANS FOR EXPANDED PRODUCTION OF PLU_238 FOR FUTURE SPACE MISSIONS, specifically, solicited comments based on the DRAFT 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, DOE/EIS_0310D, July, 2000

Dear Mrs. Brown,

I refer to the letters/e_mails to you from Jonathan Mark (September 14, 2000) and Russell Hoffman (September 9 and 14, 2000) with regards of the above mentioned matter.

I fully support both letters and like to exprss my deepest concern.

I became aware of the nuclear issue with the Cassini deep space mission and have contacted eminent independent scientists and researchers myself . I also have regularly contacted Prof. Karl **1791-1**

Response to Commentor No. 1791

1791-1: DOE notes the commentor's concern for NASA's use of nuclear materials for space missions, although this issue is beyond the scope of this PEIS. Through a Memorandum of Understanding with NASA, DOE provides radioisotope power systems, and the plutonium-238 that fuels them, for space missions that require or would be enhanced by their use. These radioisotope power systems have been used for almost 40 years, and have repeatedly demonstrated their performance, safety, and reliability in various NASA space missions. NASA establishes the need and requirements for space missions and undergoes a thorough NEPA evaluation for each launch.

Commentor No. 1791: Hans Karow (Cont'd)

Grossman, whom we have to thank that he made the Citizens on Earth aware about the nuclear issue with his book and two videaos.

I hereby ask you and the relevant U.S. Government Departments that any further production and use of nuclear fuel (including all nuclear waste products) are to be stopped for the reasons giving below in a fact sheet about Plutonium also downloadable at: http://www.animatedsoftware.com/cassini/nltrs/nltr0139.htm

I kindly ask you to please acknowledge my letter to you, and I especially ask you to please correct my findings about the Plutonium's fact, which I was also able to gather upon contacting a few independent eminent scientists and medical doctors. Please state where I am wrong. Please note: the fact sheet I wrote before Cassini's planned Earth fly_by. The facts about Plutoniums accidential release in/on/above Earth and in space are still valid, no matter in which project involved.

In deep concern,
Hans Karow, former Coordinator of the Cassini Redirection Coalition (CRC), S 32 / C 6, RR # 1, OLIVER, BC, VOH 1T0, CANADA
Tel./Fax: (250) 498 3135, Fax: (250) 498 3183, E_mail: core@vip.net

Facts about Cassini's Plutonium

The Cassini deep space mission to Saturn must be redirected to avoid its planned high risk Earth fly_by this year on August 18. Although a safe alternative solar technique was available instead of the use of Plutonium, NASA ignored worldwide warnings.

Here are some facts about Plutonium (Pu) that everybody should know about:

Pu was plentiful on Earth when it was first formed. Life did not appear on Earth until the Pu had decayed to Uranium.

Pu, almost entirely a man_made element, is a radioactive and highly toxic substance. Pu was first isolated in large (milligram) quantities in

1791-1 (Cont'd)

Response to Commentor No. 1791

Commentor No. 1791: Hans Karow (Cont'd)

1942 by Dr. John W. Gofman, who headed the Manhattan Project's Plutonium Group (Hiroshima and Nagasaki bombs).

Once it enters the body through inhalation, ingestion, or through a cut, it becomes an internal emitter that emits highly destructive radiation to the body tissue in which it concentrates. It is akin to an internal X_ray machine.

When lodged within tiny airways of the lung, Pu particles bombard surrounding tissue with alpha radiation. Smaller particles may break away from larger aggregates of the compound to be absorbed through the lung and enter the bloodstream. Because Pu has properties similar to iron, it is combined with the iron_transporting proteins in the blood and conveyed to iron_storage cells in the liver and bone marrow, inducing liver and bone cancer, and leukemia. Pu's iron_like properties also permit the element to cross the highly selective placental barrier and reach the developing fetus, possibly causing the development of abnormal structures in an embryo resulting in a severely deformed fetus and subsequent gross deformities in the newborn infant.

Pu can also migrate to the testicles and ovaries where it can cause genetic mutation to be passed on to future generations.

No quantity inhaled has been found too small to [be able to] induce lung cancer in animals. It has also been found, by any reasonable standard of scientific proof, that there is no safe dose or safe dose_rate of ionizing radiation, meaning there is no safe threshold.

It has been estimated that only one pound of Pu_238, if uniformly deposited in the lungs of the world's population, would be enough to induce lung cancer in everyone on Earth.

In the event of Cassini's accidental atmosphere re_entry during its planned Earth fly_by, or any other time due to a loss of control and subsequent random collision, its 72.3 pounds of Pu would get vaporized into invisible particles and spread as a dust all over the world. Even though over four tons of Pu_239 were released during

Response to Commentor No. 1791

Commentor No. 1791: Hans Karow (Cont'd)

atmospheric nuclear bomb testing, Cassini's 72.3 pounds of Pu_238 would carry more radioactivity than all the Pu_239 from the bomb tests.

The cancer rate will increase (humans and animals), induced over years by Cassini's accidentally released Pu.

If Pu is released into the environment, there is no way to stop its radioactive decay. As it decays, it produces the highly dangerous alpha radiation mentioned above.

Pu cannot be destroyed by any means. Pu does not disappear in the environment. It is not water_soluble. As a dust it easily becomes airborne. Once dispersed into the environment it can mix with organic substances forming compounds that can enable it to be taken up in bodies of all live species: plants, animals, and humans.

A Pu particle constantly produces radiation _ and can harm any living thing, whether human, animal or plant, that it enters, also meaning as many times as it changes its living host. If someone were to die of lung cancer induced by Pu and were cremated, contaminated smoke might carry that Pu particle into someone else's lungs. If an animal dies or is killed, its meat may be eaten by other animals or humans. Or it rots and its poisoned dust could be scattered by the wind and inhaled by other creatures. Pu_238 will be radioactive over more than 800 years [~10X the half_life __ rdh] (14% of Cassini's Plutonium consists of Pu_239, being radioactive for over 240,000 years [~10X the half_life __ rdh], although somewhat less toxic than Pu_238). Once Pu is deposited in the lung, there is no way to remove it from the lung and there is nothing that medical science can do to reduce the risk of lung cancer.

In case all vaporized Pu particles are of the size of the invisible 1,000,000 atoms_particle, there will be about 1.63 x 10^5 particles per square meter (163,000 particles!) of Earth's surface (including water surface) awaiting all living on Earth, to be absorbed over and over again for many generations!

Response to Commentor No. 1791

Commentor No. 1791: Hans Karow (Cont'd)

All the above facts have been retrieved from Professor Karl Grossman's book " The Wrong Stuff", "The Stop Cassini" web site http://www.animatedsoftware.com/cassini and the "Cassini NoFlyBy Action Site" http://www.nonviolence.org/noflyby and upon contacting eminent medical
doctors and physicists.

Hans Karow

Coordinator, Cassini Redirect Coalition (CRC)

Response to Commentor No. 1791

Commentor No. 1792: Chuck Mercer

From: CHUCKCBM@aol.com%internet
[SMTP:CHUCKCBM@AOL.COM]
Sent: Tuesday, September 19, 2000 9:07:36 AM
To: INFRASTRUCTURE_PEIS, NUCLEAR
Subject: Plutonium production at INEEL
Auto forwarded by a Rule

Dear Ms. Brown,

Here's my two cents' worth on the subject:

a.. Reprocessing is not acceptable and should not be considered at INEEL or any other facility

b.. Building 666 is a decrepit and highly contaminated building and should be decommissioned in a manner that is protective of human health and the environment **1792-1**

c.. Plutonium_238 production is unnecessary and its use too risky **1792-2**

D.. Using ATR at INEEL would interfere with its current mission of producing medical and industrial isotopes **1792-3**

e.. Extend the comment deadline 30 days **1792-4**

Thanks,
Chuck Mercer

Response to Commentor No. 1792

1792-1: DOE would not reprocess spent nuclear fuel under any of the alternatives considered under this programmatic environmental impact statement. The alternatives do include processing of target materials used to produce isotopes for medical and industrial uses, plutonium-238 for space missions, and nuclear materials research and development.

Building CPP-666 is divided into two parts, the Fuel Storage Facility and the Fluorinel Dissolution Process Facility (FDPF). The FDPF is under consideration in this PEIS for storage of neptunium-237 oxide, preparation of neptunium-237 targets, and separation of plutonium-238 from irradiated targets. DOE expects that this facility will meet, with further analysis and/or modifications, all requirements to safely conduct these processes.

1792-2: Through a Memorandum of Understanding with NASA, DOE provides radioisotope power systems, and the plutonium-238 that fuels them, for space missions that require or would be enhanced by their use. In addition, under the National Space Policy issued by the Office of Science and Technology Policy in September 1996, and consistent with DOE's charter under the Atomic Energy Act, DOE is responsible for maintaining the capability to provide the plutonium-238 needed to support these missions. There are approximately 9 kilograms (19.8 pounds) of plutonium-238 in the U.S. inventory available to support future NASA space missions; no viable alternative to using plutonium-238 to support these missions currently exists. Based on NASA guidance to DOE on the potential use of radioisotope power systems for upcoming space missions, it is anticipated that the existing plutonium-238 inventory will be exhausted by approximately 2005. Without an assured domestic supply of plutonium-238, DOE's ability to support future NASA space exploration missions may be lost.

DOE could purchase plutonium-238 from Russia; however, for supply reliability reasons and concern of nuclear nonproliferation, DOE's preference is to establish a domestic plutonium-238 production capability. Section 1.2.2 of Volume 1 was revised to further clarify the purpose and need for reestablishing a domestic plutonium-238 production capability to support NASA space exploration missions.

Potential health and safety impacts associated with normal operations, facility accidents, and transportation as a result of the proposed production of plutonium-238 are relatively low and are discussed in detail in Chapter 4 of Volume 1, and Appendixes H, I, and J of Volume 2 in the Final NI PEIS.

Commentor No. 1792: Chuck Mercer (Cont'd)

Response to Commentor No. 1792

1792-3: As stated in EIS Volume 1, Section 2.3.1.2, ATR would continue to meet its medical and industrial radioisotope production mission for the no action and most other alternatives considered where ATR is not used for the production of plutonium-238. If ATR were to be used as a production facility for plutonium-238 (options 1, 2, 3, 7, 8, and 9 under Alternative 2), it would support medical and industrial radioisotope production to the extent possible. DOE would try to minimize the impact of the new mission on current medical and industrial radioisotope production.

1792-4: DOE notes the commentor's request for extension of the public comment period. The Council on Environmental Quality's (CEQ) "Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act" (40 CFR 1506.10(c)) require that a minimum of 45 days be allowed for public comment on the Draft NI PEIS. As stated in the Notice of Availability (65 FR 46443 et seq.), the public comment period began on July 28, 2000 and continued to September 18, 2000. In preparing the Final PEIS, DOE has assessed and considered both oral and written comments received on the Draft PEIS during the public comment period and has responded to these comments in the Final PEIS. Volume 3 of the NI PEIS contains public comments received on the NI PEIS and DOE responses to those comments. Moreover, late comments were considered to the extent practicable.

Commentor No. 1793: Karen Boyer

Hanford Watch
2285 SE Cypress
Portland, Oregon 97214

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Ms. Colette Brown
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Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: 1793-1

until nuclear production does not produce harmful toxic waste, it 1793-2 is unconscionable to continue the production. How much more wise would it be, 1793-3 to use the millions and billions of people's hard earned dollars to produce clean sustainable energy!!

Name Karen Boyer

Address 736 SE Lambert St.

City, state Ptld, OR Zip 97202

Response to Commentor No. 1793

1793-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1793-2: The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed action for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision. The waste generated from any of the proposed alternatives in the NI PEIS will be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders. The missions to be addressed in this NI PEIS, which include the production of medical and industrial isotopes, the production of plutonium-238, and nuclear research and development, can currently only be met using nuclear reactor or accelerator technologies.

1793-3: DOE notes the commentor's interest in alternative energy sources. The DOE missions to be addressed in this EIS, which include the production of medical and industrial isotopes, the production of plutonium-238, and civilian nuclear energy research and development, can currently only be met using nuclear reactor or accelerator technologies.

Commentor No. 1794: Jo Anne Nordling

Hanford Watch
2285 SE Cypress
Portland, Oregon 97214

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SEP 15 2003

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Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I vote for alternative #5! (a 35 yr. environmental impact study is ridiculous.) 1794-1

I am opposed to restart of the Fast Flux Test Facility reactor because: 1794-2

(1) the need for production of isotopes at Hanford is not proven. 1794-3

(2) Restarting the plant would produce more dangerous wastes when we obviously can't deal with the wastes we already have! 1794-4

(3) Environmental impacts will be horrendous yet no serious environmental impact survey has been done. 1794-5

(4) Frankly I don't trust the DOE – their past history of covering up the truth re: plutonium releases is scary. We need an outside, independent oversight agency. 1794-6

Name Jo Anne Nordling

Address 7105 SW Elmhurst St.

City, state Tigard, OR Zip 97223

Response to Commentor No. 1794

1794-1: DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF, and opposition to Alternative 1, Restart FFTF.

It should be noted that the NI PEIS considered a 35-year operational period for purposes of analysis. The 35-year operation period is based upon the estimated length of time existing DOE irradiation facilities would continue operating if used for accommodating these missions. This time frame also accommodates current projections that indicate the demand for radioisotopes and nuclear research and development requiring these enhancements will extend for at least the next 20 years.

1794-2: See response to comment 1794-1.

1794-3: DOE notes the commentor's opposition to restarting FFTF for medical isotope production. DOE has sought independent analysis of trends in the use of medical isotopes, and of its continuing role in this sector, consistent with its mandates under the Atomic Energy Act. In doing so, it established two expert bodies, the Expert Panel and the NERAC. In 1998, the Expert Panel, which convened to forecast future demand for medical isotopes, estimated that the expected growth rate of medical isotope use during the next 20 years would range from 7 to 14 percent per year for therapeutic applications, and 7 to 16 percent per year for diagnostic applications. These findings were later reviewed and endorsed by NERAC, established in 1999 to provide DOE with expert, objective advice regarding the future form of its isotope research and production activities. DOE has adopted these growth projections as a planning tool for evaluating the potential capability of the existing nuclear facility infrastructure to meet programmatic requirements. In the period since the initial estimates were made, the actual growth of medical isotope use has tracked at levels consistent with the Expert Panel findings. Section 1.2.1 of Volume 1 was revised to incorporate this information and to clarify DOE's role in fulfilling the U.S. research and commercial isotope production needs.

Although other manufacturers produce medical radioisotopes, DOE remains the key provider for a large number of radioisotopes that are used in relatively small quantities by individual researchers at universities and hospitals. Because their application is initially experimental, these isotopes are not generally purchased in large-enough quantities to make their production financially attractive to private industry. However, supplies of many research isotopes are not readily available from existing

domestic or foreign sources, causing a number of medical research programs to be terminated, deferred, or seriously delayed. Consistent with the mandates under the Atomic Energy Act, DOE seeks to maintain and enhance its infrastructure to support production of radioisotopes for medical applications and research.

Currently, approximately 50 percent of DOE's isotope production capability is being used. Much of the remaining isotope production capability is dispersed throughout the DOE complex. This capability supports secondary missions, but cannot be effectively used due to the operating constraints associated with the facilities' primary missions basic energy sciences or defense). DOE is currently meeting most of its short-term requirements. However, in the long-term (next 5 to 10 years) there will be a shortfall in available DOE capacity to meet demand. Should the isotope demand grow consistent with the Expert Panel Report, as it has recently, or if DOE's market share increases, there will be a need for expanded isotope production capacity in the short-term (less than 5 years).

1794-4: As identified in Section 4.3.1.1.13 of the NI PEIS, the restart of FFTF would generate about 63 cubic meters of additional radioactive waste (e.g., solid low-level radioactive waste) annually, in addition to nonhazardous wastes. This would account for about 2,205 cubic meters of additional radioactive waste to be generated over the 35-year period of nuclear infrastructure operations and is small in comparison to the waste generated by current Hanford activities. It is DOE's policy that all wastes be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders.

The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed action for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision.

1794-5: DOE notes the commentor's concern about potential environmental impacts associated with restart of FFTF and with the additional concern about performing environmental impact surveys.

The incremental environmental impacts at Hanford specifically associated with the Alternative 1, Restart FFTF, are presented and discussed in Section 4.3 of the NI PEIS. The incremental impacts include those

Commentor No. 1794: Jo Anne Nordling (Cont'd)

Response to Commentor No. 1794

associated with normal operations and from postulated accidents. All impacts to human health and to ecological resources would be small in the immediate area of the Hanford site and negligible at all distant locations.

An environmental report is issued annually by DOE for the Hanford site. The report includes the results of effluent monitoring and environmental surveillance programs and surveys for all areas of Hanford. The results are reflected in the information presented in Section 3.4 of the NI PEIS, in which the existing environment at Hanford is described.

1794-6: The commentor's position with regard to an outside, independent oversight agency is noted. Human health and safety are a priority in all of DOE's programs. With respect to actions that would result from implementation of the nuclear infrastructure alternatives, Chapters 2 and 4 of Volume 1 (e.g,. Sections 4.3.1.1.9, 4.3.2.1.9, 4.3.3.1.9) and Appendixes H through J of Volume 2 address health and safety of the public and workers in detail. If Alternative 1, Restart FFTF, were selected for implementation, the issue of external, independent oversight could be considered at that time.

Commentor No. 1795: K. Bryant-Stanek

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Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: **1795-1**

one day I would agian like to swim in the ~~Willamette R.~~ Columbia River on the banks of Sauvie island. **1795-2**
¡Only if Hanford is cleaned up!

Name Esther Bryant Stanek
Address 2626 NE 16th #5
City, state Portland, OR Zip 97212

Response to Commentor No. 1795

1795-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1795-2: The DOE missions delineated in the NI PEIS would not have an impact on Hanford cleanup activities. FFTF is approximately 4.5 miles from the Columbia River. There are no discharges to the river from FFTF and no radioactive or hazardous discharges to groundwater. As indicated in analyses presented in Chapter 4 of Volume 1 (e.g., Sections 4.3.1.1.4, 4.3.3.1.4, 4.4.3.1.4, 4.5.3.2.4, and 4.6.3.2.4), there would be no discernible impacts to groundwater or surface water quality at Hanford from operation of Hanford facilities that would support the nuclear infrastructure missions described in Section 1.2 of Volume 1. No food or water restrictions are inplace outside the Hanford Site as a result of Hanford activities.

Commentor No. 1796: Brook Boden

Hanford Watch
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Portland, Oregon 97214

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Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: 1796-1

of concern for the harm it 1796-2
will cause the environment,
and because I would like
to see more energy and 1796-3
resources put toward different
forms of energy.

Name Brook Boden
Address PO Box 1274
City, state Forest Grove, OR Zip 97116

Response to Commentor No. 1796

1796-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1796-2: DOE notes the commentor's concern about the potential environmental impacts associated with FFTF restart. The environmental impacts associated with operation of the FFTF and support facilities at Hanford during normal operations and from postulated accidents are presented and discussed in Section 4.3 of the NI PEIS. All impacts to human health and to ecological resources would be small in the immediate area of the Hanford site and negligible at all distant locations.

1796-3: DOE notes the commentor's interest in alternative energy sources. It is the current United States policy that clean, safe, reliable nuclear power continue as a viable component of the United States' energy portfolio. In recognition of this need, the government has initiated nuclear energy research and development programs to address potential long-term barriers to expanded use of nuclear power (e.g., nuclear waste, proliferation, safety, and economics) and to ensure that current nuclear power plants can continue to deliver adequate and affordable energy supplies. An enhanced DOE nuclear facility infrastructure is required to support such nuclear energy research and development for civilian applications.

Commentor No. 1797: Phillip Saumpty

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2285 SE Cypress
Portland, Oregon 97214

33 USA

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Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: **1797-1**

Because of environmental and Health **1797-2**

reasons. There are safer methods **1797-3**

of obtaining needed energy.

Name Phillip Saumpty

Address 1404 SW Carson St

City, state Portland, Oregon Zip 97219

Response to Commentor No. 1797

1797-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1797-2: The environmental impacts associated with operation of the FFTF and support facilities at Hanford during normal operations and from postulated accidents are presented and discussed in Section 4.3 of the NI PEIS. All impacts to human health and to ecological resources would be small in the immediate area of the Hanford site and negligible at all distant locations.

1797-3: DOE notes the commentor's opposition to restarting FFTF. Consistent with its mandates under the Atomic Energy Act, DOE seeks to maintain and enhance its infrastructure for the purposes of addressing three primary needs: 1) to support the need for increased domestic production of isotopes for medical, research, and industrial uses, as initially identified by a panel of experts in the medical field and reaffirmed by the Nuclear Energy Research Advisory Committee; 2) to support future NASA space exploration missions by re-establishing a domestic capability to produce plutonium-238, a fuel source that is required for deep space missions and which the U.S. has no long-term, assured supply; and 3) to support civilian nuclear research and development needs in order to maintain the clean, safe, and reliable use of nuclear power as a viable component of the United States' energy portfolio. Section 1.2 of Volume 1 was revised to clarify the purpose and need of the proposed action. DOE considers various facilities, including FFTF and others, for carrying out these missions. The public health and safety and other environmental impacts associated with the restart off FFTF as well as other proposed alternatives and facilities are described in Chapter 4 of Volume 1 and additional details are provided in Appendixes H, I, J, K, L, and M of Volume 2. In any case, FFTF, if restarted, would not be used for the production of energy.

Issues of research and development of alternative energy sources are beyond the scope of this NI PEIS. Other offices of DOE are responsible for the research and development of alternative energy sources. The stated missions to be addressed in this EIS, which include the production of medical and industrial isotopes, the production of plutonium-238, and nuclear research and development, can currently only be met using nuclear reactor or accelerator technologies.

Commentor No. 1798: Thomas Bergeron

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Portland, Oregon 97214

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Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: **1798-1**

There is no satisfactory way to deal with nuclear waste **1798-2**

Name Dr. Thomas Bergeron
Address 18990 Bridgeport Rd
City, state Dallas OR Zip 97338

Response to Commentor No. 1798

1798-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1798-2: As identified in Section 4.3.1.1.13 of the NI PEIS, the restart of FFTF would generate about 63 cubic meters of additional radioactive waste (e.g., solid low-level radioactive waste) annually, in addition to nonhazardous wastes. This would account for about 2,205 cubic meters of additional radioactive waste to be generated over the 35-year period of nuclear infrastructure operations and is small in comparison to the waste generated by current Hanford activities. It is DOE's policy that all wastes be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders.

The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed action for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision.

Commentor No. 1799: Laura Feldman

Hanford Watch
2285 SE Cypress
Portland, Oregon 97214

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1003
SEP 15 2

Ms. Colette Brown
U.S. Department of Energy
Office of Space and Defense Power Systems
NE-50
19901 Germantown Road
Germantown, Maryland 20874-1290

Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: **1799-1**

You know, the human race knows in its soul that this is suicide. Think of your loved ones, think of your garden, your favorite pleasure, for God's sake do the right thing. It's not only your Karma!

Name Laura Feldman

Address 817 SE 29th

City, state Portland, OR Zip 97214

Response to Commentor No. 1799

1799-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

Commentor No. 1856: Mark Elsis

From: LOVEARTH[SMTP:MARK@LOVEARTH.NET]
Sent: Tuesday, September 19, 2000 5:23:23 PM
To: INFRASTRUCTURE_PEIS, NUCLEAR
Subject: Pu 238
Auto forwarded by a Rule

Mrs. Colette E. Brown September 19, 2000

Will you guys please stop your crazy nuclear ways. **1856-1**
We all want Solar and Fuel Cells for energy please.

Mark Elsis
xoxoxoxoxoxoxoxoxoxoxoxoxoxoxoxoxoxoxoxoxoxoxoxoxoxo
LOVEARTH Network
Forming A Unity Of One Percent To Stop Our Extinction
By Developing The Largest And Most Informative Online
Environmental Educational and Humanitarian Network
Help Us Connect The Dots For A Sustainable Web Of Life
http://www.Lovearth.net
MailTo:AUnityOfOnePercent@Lovearth.net
Phone Toll Free: 1 877 LOVEARTH = 1 877 568.3278
Outside The United States: 1 941 349.9426
Fax Toll Free: 1 877 WEB OF LIFE = 1 877 932.6354
Outside The United States: 1 941 349.0295
5683 Midnight Pass Road Suite 106
Siesta Key Florida 34242
LOVEARTH
BE YOUR BEST
RESONATE LOVE
Executive Director: Mark Elsis
MailTo:Mark@Lovearth.net
LOVE ALL LIFE ON EARTH FOR FUTURE GENERATIONS
GO IN PEACE
xoxoxoxoxoxoxoxoxoxoxoxoxoxoxoxoxoxoxoxoxoxoxoxoxoxo

Response to Commentor No. 1856

1856-1: DOE notes the commentor's interest in alternative energy sources. The DOE missions to be addressed in this EIS, which include the production of medical and industrial isotopes, the production of plutonium-238, and civilian nuclear energy research and development, can currently only be met using nuclear reactor or accelerator technologies.

Commentor No. 1857: Eban Goodstein

From: Eban Goodstein[SMTP:EBAN@LCLARK.EDU]
Sent: Tuesday, September 19, 2000 7:15:03 PM
To: INFRASTRUCTURE_PEIS, NUCLEAR
Subject: Comment
Auto forwarded by a Rule

Comments on Nuclear Infrastructure PEIS

As a long time observer of the Hanford situation, I would like to make the following comments:

The FTTF is not needed. Therefore it should not be restarted, and it should be shut down permanently, saving taxpayers $30 million per year. **1857-1** **1857-2**

Sincerely,

+ + + + + + +

Eban Goodstein
Associate Professor, Economics
Lewis and Clark College
Portland, OR 97219
v 503.768.7626 / f 503.768.7611
eban@lclark.edu

Response to Commentor No. 1857

1857-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF, and support for Alternative 5, Permanently Deactivate FFTF. The need for the proposed action is addressed in Section 1.2 of Volume 1 of the PEIS. The role of FFTF in fulfilling that need is addressed in Section 2.5.2 of Volume 1.

1857-2: See response to comment 1857-1.

Commentor No. 1858: Losena Tubanavau-Salabula

From: Reception[SMTP:PCRC@IS.COM.FJ]
Sent: Tuesday, September 19, 2000 9:33:08 PM
To: INFRASTRUCTURE_PEIS, NUCLEAR
Subject: From Losena
Auto forwarded by a Rule

PACIFIC CONCERNS RESOURCE CENTRE Inc.

83 Amy Street, Toorak, Private Mail Bag, Suva, Fiji
Telephone:(679) 304.649 Facsimile:(679) 304.755
E_mail: pcrc@is.com.fj Website: www.pcrc.org.fj

File Ref:Camp/Nuclear Weapons. Chrg: Demil.
19 September; 2000.

Olette E. Brown,
U.S. Department of Energy, NE_50,
19901 Germantown R, Germantown, MD 20874_1290

Dear Olette,

The Nuclear Free & Independent Pacific Movement for nearly three decades worked very hard to promote education awareness programme to educate the peoples of the Pacific region and Pacific rim in the importance of maintaining clean environment for the sustenance of its peoples. The Movement has conflicts with other metropolitan powers due to our contradictory philosphies about clean environment; for example in their denial that nuclear testing is not harmful to the environment and to human health. However, the United States of America has always been committed to its environmental obligations. In this regard, we would like to encourage the U.S. Department of Energy to talk with NASA to promote developing more alternative (solar, hydro) power sources for space missions. NASA certainly can swallow its pride for a moment and follow suit with the European Space Agency (ESA) which has developed high_ efficiency solar cells for deep space mission. **1858-1**

Response to Commentor No. 1858

1858-1: DOE notes the commentor's opposition to NASA's use of nuclear materials for space missions, concern for the funding of ongoing cleanup activities, and concern over the use of nuclear power in space-based weapons. Issues such as NASA research priorities are beyond the scope of this PEIS. Through a Memorandum of Understanding with NASA, DOE provides radioisotope power systems, and the plutonium-238 that fuels them, for space missions that require or would be enhanced by their use. These radioisotope power systems have been used for almost 40 years, and have repeatedly demonstrated their performance, safety, and reliability in various NASA space missions. NASA establishes the need and requirements for space missions and undergoes a thorough NEPA evaluation for each launch. None of the DOE missions stated in the NI PEIS are defense- or weapons-related.

Commentor No. 1858: Losena Tubanavau-Salabula (Cont'd)

Also one problem that has been experienced is the production/ fabrication process for space nuclear power missions has recently led to several worker contamination accidents. The expansion of production will certainly just worsen the problem.

The NFIP Movement has kept records of failures of launches of nuclear powered space devices in Cape Canaveral on rockets with 10% failure rates will only increase the possibility of a deadly mishap.

We are dismayed in the massive cost of expanded production of plu_238 cannot be just at a time when the DoE admits it needs over $US300billion to clean_up exist problems at DoE facilities.

Furthermore, NFIP earlier mentioned the commitment by the US government to clean environment. It is very contradictory to learn that the US Military is promoting the use of nuclear power in space for the space_ based weapons technology. Using nuclear power for space war will severe environmental implications for life on Earth.

We sincerely hope that one day the United States of America will halt completely all its nuclear and military activities to allow peace and harmony prevail in the globe.

In Peace

Losena Tubanavau_Salabula
Assistant Director_Demilitarization
PCRC Inc;

1858-1 (Cont'd)

Response to Commentor No. 1858

As discussed in Chapter 4 of Volume 1 (e.g. Sections 4.3.1.1.13, 4.3.2.1.13, 4.3.3.1.13), waste will be generated by all of the proposed alternatives, including the No Action Alternative. The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed actions for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision. DOE activities associated with this program would not impact the schedule or available funding for existing cleanup activities at candidate sites for implementation of the nuclear infrastructure alternatives.

The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

Commentor No. 1859: Kim Cook

Hanford Watch
2285 SE Cypress
Portland, Oregon 97214

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Ms. Colette Brown
U.S. Department of Energy
Office of Space and Defense Power Systems
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19901 Germantown Road
Germantown, Maryland 20874-1290

76

Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: 1859-1

Clean-up the waste + find a safe way to store the waste. 1st!! How can we consider reopening the FFTF - without knowing the costs 1st!! I am extremely concerned about SAFETY of transportation & storage of waste 1859-2 1859-3 1859-4

Name Kim Cook

Address 3806 SE Stephens St.

City, state Portland, OR Zip 97214

Response to Commentor No. 1859

1859-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1859-2: DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing Hanford cleanup activities are high priority to DOE. Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

1859-3: The costs of proposed actions are not required by NEPA and CEQ regulations to be included in a PEIS. DOE prepared a separate Cost Report to provide additional pertinent information to the Secretary of Energy so that he may make an informed decision with respect to the alternatives presented in the NI PEIS. Such an ancillary document need only be made available to the public prior to any decision being made under CEQ regulations (40 CFR Part 1505.1(e)). Nevertheless, DOE mailed this document to about 730 interested parties on August 24, 2000. The report was made available immediately upon release on the NE web site (http://www.nuclear.gov) and in the public reading rooms. DOE has also provided a summary of the Cost Report in Appendix P in the Final NI PEIS.

1859-4: The commentor's concerns about safety during transportation and storage of nuclear materials are noted.

Volume 1, Section 2.4 of the NI PEIS describes measures that would be used to ensure that radioactive materials would be safely transported under the nuclear infrastructure alternatives. Special nuclear materials would be transported with DOE's SST/SGT system and many materials would be carried in Type B shipping containers.

Since its establishment in 1975, the SST/SGT system has transported DOE-owned cargo over more than 151 million kilometers (94 million miles) with no accidents causing a fatality or release of radioactive material. Type B shipping containers that would be used for

Commentor No. 1859: Kim Cook (Cont'd)

Response to Commentor No. 1859

transportation of plutonium in various forms are described in Appendix J. Requirements for certification of a Type B container include maintaining its integrity through a series of accident conditions illustrated in Figure J-1. Type B packages have been used for years to ship radioactive materials in the United States and around the world. To date, no Type B package has ever been punctured or released any of its content, even in actual highway accidents. As described in Appendix J, the Type B package is robust and provides a high degree of confidence that even in severe accidents, the integrity of the package would be maintained with essentially no loss of the radioactive contents or serious impairment of the shielding capability.

Transportation of nuclear materials under the nuclear infrastructure alternatives would be subject regulation by the U.S. Department of Transportation (DOT) and the U.S. Nuclear Regulatory Commission (NRC). Populations and traffic congestion are factors that DOE would consider when planning for the actual route to be used for the transportation of radioactive materials.

In regards to concern with storage of nuclear materials, provisions for in process storage of nuclear fuel, target isotopes, unirradiated targets, irradiated targets and purified isotopes are included in the various facility designs. Design-basis and beyond-design-basis accidents analyzed in Appendix I include materials stored at the storage, irradiation and production facilities proposed in the NI PEIS. These analyses show that over the 35-year operational period no fatalities would be expected among workers or in the general public in the vicinity of Hanford or at distant locations.

Commentor No. 1860: Loren Fenwell

Hanford Watch
2285 SE Cypress
Portland, Oregon 97214

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USPS 9720

Ms. Colette Brown
U.S. Department of Energy
Office of Space and Defense Power Systems
NE-50
19901 Germantown Road
Germantown, Maryland 20874-1290

Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: 1860-1

1) You have NOT cleaned up the mess from 60+ yr's ago. 1860-2

2) There has NOT in my opinion, been a safe disposal designed yet. 1860-3

and 3) There ARE alternatives! 1860-4

Name Loren Fenwell

Address PO 414

City, state PDX OR. Zip 97208

Response to Commentor No. 1860

1860-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1860-2: DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The DOE missions delineated in the NI PEIS would not have an impact on Hanford cleanup activities.

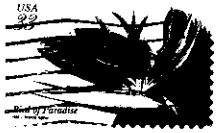
1860-3: DOE notes the commentor's concern regarding the disposal of wastes. The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed action for

all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision. The waste generated from any of the proposed alternatives in the NI PEIS will be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders.

1860-4: This NI PEIS has been prepared in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementation regulations (40 CFR Parts 1500 through 1508 and 10 CFR Part 1021), respectively. The environmental impacts of reasonable alternatives to fulfill the requirements of the missions were disclosed and evaluated in the NI PEIS. In accordance with Council on Environmental Quality regulations (40 CFR Part 1502.14(e)), DOE has identified its preferred alternative in Section 2.8 of Volume 1 and includes a discussion of DOE's reasons for selecting it.

Commentor No. 1861: Jane Knechtel

Hanford Watch
2285 SE Cypress
Portland, Oregon 97214



Ms. Colette Brown
U.S. Department of Energy
Office of Space and Defense Power Systems
NE-50
19901 Germantown Road
Germantown, Maryland 20874-1290

3874+1207

Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: **1861-1**

CLEARLY THE PRIORITIES FOR HANFORD AT THIS TIME SHOULD BE CLEAN-UP AND ENSURING PUBLIC SAFETY, NOT PURSUING FURTHER PLUTONIUM PRODUCTION. **1861-2**

Name JANE KNECHTEL

Address 3034 NE 24TH AVE.

City, state PORTLAND, OR Zip 97212

Response to Commentor No. 1861

1861-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1861-2: Restoration of the Hanford Site and waste management activities are the primary missions at Hanford. FFTF restart would not impact the cleanup missions at Hanford.

With respect to waste management and cleanup issues, the Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement.

With respect to plutonium processing, no weapons material will be produced. All DOE missions are for civilian purposes, and are not defense- or weapons-related.

Commentor No. 1862: Robert Hansen

Hanford Watch
2285 SE Cypress
Portland, Oregon 97214

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Ms. Colette Brown
U.S. Department of Energy
Office of Space and Defense Power Systems
NE-50
19901 Germantown Road
Germantown, Maryland 20874-1290

Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: 1862-1

IT IS NOT SAFE & WE DO NOT NEED 1862-2

IT. IT IS A COMPLETE LIE TO 1862-3

SAY WE NEED IT FOR MEDICAL ISOTOPES.

LISTEN TO YOUR OWN PANEL! STOP IT!

& CLEAN IT UP! 1862-4

Name ROBERT HANSEN

Address 215 E N. WYGANT

City, state PORTLAND OR Zip 97217

Response to Commentor No. 1862

1862-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1862-2: FFTF can be safely operated to support the nuclear infrastructure missions described in Section 1.2 of Volume 1. Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that would be expected to result from implementation of Alternative 1, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with restarting FFTF would be small.

1862-3: DOE notes the commentor's opposition to Alternative 1, Restart FFTF. DOE has sought independent analysis of trends in the use of medical isotopes, and of its continuing role in this sector, consistent with its mandates under the Atomic Energy Act. In doing so, it established two expert bodies, the Expert Panel and the NERAC. In 1998, the Expert Panel, which convened to forecast future demand for medical isotopes, estimated that the expected growth rate of medical isotope use during the next 20 years would range from 7 to 14 percent per year for therapeutic applications, and 7 to 16 percent per year for diagnostic applications. These findings were later reviewed and endorsed by NERAC, established in 1999 to provide DOE with expert, objective advice regarding the future form of its isotope research and production activities. DOE has adopted these growth projections as a planning tool for evaluating the potential capability of the existing nuclear facility infrastructure to meet programmatic requirements. In the period since the initial estimates were made, the actual growth of medical isotope use has tracked at levels consistent with the Expert Panel findings. Section 1.2.1 of Volume 1 was revised to incorporate this information and to clarify DOE's role in fulfilling the U.S. research and commercial isotope production needs.

The conclusions presented in the NERAC Subcommittee for Isotope Research and Production Planning Final Report, April 2000 regarding the suitability of FFTF to produce research isotopes in a timely and cost-efficient manner were made in the context of the facility producing research isotopes as its sole mission. It would not be cost effective to restart FFTF for the singular purpose of producing small quantities of various research isotopes. However, sustained operation of FFTF for the production of larger quantities of both research and commercial isotopes would be viable if operated in concert with producing plutonium-238 and

Commentor No. 1862: Robert Hansen (Cont'd)

Response to Commentor No. 1862

conducting nuclear energy research and development for civilian applications. As the NERAC report states: "In limited instances, the DOE possesses unique resources, e.g., the high flux of fast neutrons and large irradiation volume in FFTF, that could be utilized for the production of some radioisotopes, but is best suited for commercial interests who might consider its use for isotope production." In recognition of these constraints on its operational feasibility, the NI PEIS only evaluates the use of FFTF when coupled with the other stated missions. While some existing reactors may possess the potential capability or capacity to support research isotope production, as suggested in the NERAC report, it is unlikely that reliable, increased production of these isotopes to support projected needs could be accomplished without impacting the existing missions of these facilities.

1862-4: DOE notes the commentor's concern regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The DOE missions delineated in the NI PEIS would not have an impact on Hanford cleanup activities.

Commentor No. 1863: Sarah Schsinky

Hanford Watch
2285 SE Cypress
Portland, Oregon 97214

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Ms. Colette Brown
U.S. Department of Energy
Office of Space and Defense Power Systems
NE-50
19901 Germantown Road
Germantown, Maryland 20874-1290

Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: 1863-1

Its irresponsible - we already have 1863-2
an enormous mess on our hands
with current contamination - why on 1863-3
earth would the DOE risk our
health & children's future with more
poison!

Name Sarah Schsinky

Address 2946 NE 9th

City, state Portx OR Zip 97212

Response to Commentor No. 1863

1863-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1863-2: DOE notes the commentor's concern regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The DOE missions delineated in the NI PEIS would not have an impact on Hanford cleanup activities.

1863-3: This PEIS has provided an estimate of the potential human health impacts associated with each of the alternatives proposed for the production of isotopes for medical uses, research and development, and as heat sources for radioisotope power systems. The methodology used is intended to provide realistic results based upon our current knowledge of the health impact of low doses of radiation. Section 4.3 of Volume 1 provides the results of this evaluation of potential health impacts that would be expected to result from a reasonable range of alternatives, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with these alternatives, including alternatives that make use of Hanford facilities, would be small.

Commentor No. 1864: Tomas Svoboda

Hanford Watch
2285 SE Cypress
Portland, Oregon 97214

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Ms. Colette Brown
U.S. Department of Energy
Office of Space and Defense Power Systems
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19901 Germantown Road
Germantown, Maryland 20874-1290

Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: 1864-1

Please stop the Nuclear Reactor! One 1864-2
of the biggest concerns is not only
the nuclear waste but the possible
attack of slowly growing terrorism 1864-3
all over the world.

Name Tomas Svoboda

Address 4729 SE 34th Ave.

City, state Portland, OR Zip 97202

Response to Commentor No. 1864

1864-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1864-2: DOE notes the commentor's concern regarding wastes. The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed action for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision. The waste generated from any of the proposed alternatives in the NI PEIS will be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders.

1864-3: The commentor's opposition to the use of nuclear reactors because of world terrorism is noted. DOE completed a separate nonproliferation impacts assessment report which concluded that the mission described in this EIS would not violate U.S. nonproliferation policy and international nonproliferation agreements. All DOE facilities are operated in accordance with DOE approved safeguards and security plans and procedures which are designed to preclude acts of terrorism. The Record of Decision for the PEIS will be based on a number of factors including environmental impacts, public input, costs, nonproliferation impacts, schedules, technical assurance, and other policy and programmatic objectives.

Commentor No. 1865: Marc Zolton

Hanford Watch
2285 SE Cypress
Portland, Oregon 97214

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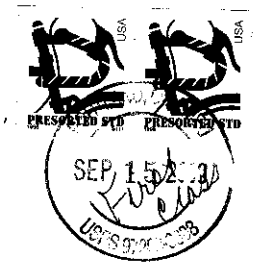

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19901 Germantown Road
Germantown, Maryland 20874-1290

76

Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: 1865-1

Clean up the mess you've already made at Hanford. No new, waste-producing missions at Hanford. Keep your promise & fully fund the cleanup! 1865-2

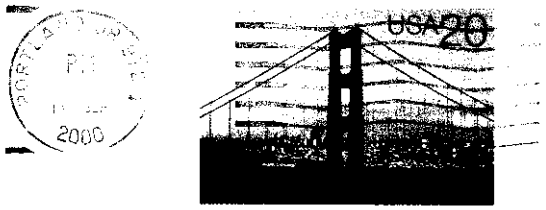
Name Marc Zolton
Address 1911 SE 43rd Ave
City, state Portland, OR Zip 97215

Response to Commentor No. 1865

1865-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1865-2: DOE notes the commentor's concern regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The DOE missions delineated in the NI PEIS would not have an impact on Hanford cleanup activities.

Commentor No. 1866: Janet McNary



Colette Brown
U.S. Dept. of Energy
19901 Germantown Rd.
Germantown
Maryland 20874

0874+1207

14 Sept. 2000

PLEASE put me down as one of those who wishes to encourage you and your department to shut down the reactor and clean up the mess at Hanford. 1866-1 1866-2

Hope fully yours,
Janet McNary
JANET McNARY
115 N.E. 62 AVE.
PORTLAND, OR. 97213

Response to Commentor No. 1866

1866-1: DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

1866-2: DOE notes the commentor's concern regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The DOE missions delineated in the NI PEIS would not have an impact on Hanford cleanup activities.

Commentor No. 1867: Kate Doran

Hanford Watch
2285 SE Cypress
Portland, Oregon 97214

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SEP 15 A.7

Ms. Colette Brown
U.S. Department of Energy
Office of Space and Defense Power Systems
NE-50
19901 Germantown Road
Germantown, Maryland 20874-1290

Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: 1867-1

it is unecessary!! 1867-2

Hanford needs to 1867-3

be cleaned up. re-

start of the FFTF would 1867-4

create more waste to

contend with.

Name Kate Doran

Address 425 SE 32nd Ave #9

City, state Portland, OR Zip 97214

Response to Commentor No. 1867

1867-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1867-2: DOE notes the commentor's opposition to the use of FFTF for the expansion of its nuclear facility infrastructure. The NI PEIS evaluates the environmental impacts of a range of reasonable alternatives for expanding DOE's existing nuclear facility infrastructure to support production of isotopes for medical, research, and industrial uses; production of plutonium-238 for use in future NASA space exploration missions; and U.S. nuclear research and development needs for civilian application. In addition to restarting the FFTF, the NI PEIS also evaluates alternatives that would either employ the use of other existing facilities or rely on the construction of new facilities.

1867-3: DOE notes the commentor's concern regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The DOE missions delineated in the NI PEIS would not have an impact on Hanford cleanup activities.

1867-4: As identified in Section 4.3.1.1.13 of the NI PEIS, the restart of FFTF would generate about 63 cubic meters of additional radioactive waste (e.g., solid low-level radioactive waste) annually, in addition to nonhazardous wastes. This would account for about 2,205 cubic meters of additional radioactive waste to be generated over the 35-year period of nuclear infrastructure operations and is small in comparison to the waste generated by current Hanford activities. It is DOE's policy that all wastes be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders.

The NI PEIS addressed the environmental impacts due to the treatment storage, and disposal of the waste generated by the proposed action for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision.

Commentor No. 1868: Laura Follingstad

Hanford Watch
2285 SE Cypress
Portland, Oregon 97214

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Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS) It should go to cleanup, not restart!!! 1868-1

I am opposed to restart of the Fast Flux Test Facility reactor because: 1868-2

There is already way too much waste at Hanford, which was never cleaned up according to the agreement. We will be dealing with that mess forever. Why add to it? 1868-1

Also, none of the reasons for restart are valid – isotopes & 238 are obtainable elsewhere! 1868-3

Name Laura Follingstad

Address 2123 NE 53rd

City, state PORTLAND OR Zip 97213

Response to Commentor No. 1868

1868-1: DOE notes the commentor's concern regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement.

The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

1868-2: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1868-3: The United States currently purchases approximately 90 percent of its medical radioisotopes from foreign producers, most notably Canada. However, Canada only supplies a limited number of economically attractive commercial isotopes (primarily Molybdenum-99), and it does not supply research isotopes or the diverse array of medical and industrial isotopes considered in the NI PEIS. Further, supplies of many research isotopes are not readily available from existing foreign or domestic sources, causing a number of medical research programs to be terminated, deferred, or seriously delayed. As such, reliance on these other sources of isotopes to satisfy projected U.S. isotope needs would not meet DOE's mission requirements. Section 1.2.1 of Volume 1 has been revised to clarify DOE's isotope production role and other producers' capabilities to fulfill U.S. isotope needs.

DOE could purchase plutonium-238 from Russia; however, for supply reliability reasons and concern of nuclear nonproliferation, DOE's preference is to establish a domestic plutonium-238 production capability. Section 1.2.2 of Volume 1 was revised to further clarify the purpose and need for reestablishing a domestic plutonium-238 production capability to support NASA space exploration missions.

Commentor No. 1869: Tom Davidson

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Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: **1869-1**

It is impossible to deal completly with the waste through this facility. **1869-2**
This remains unproven & there is ample evidence that this is true from the active remains currently on Hanford

Name Tom DAVIDSON

Address 2288 NE 15th Ave

City, state Portland OR Zip 97212

Response to Commentor No. 1869

1869-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1869-2: Management of wastes that would be generated under implementation of Alternative 1, Restart FFTF, is discussed in Section 4.3 of Volume 1 (e.g., see Section 4.3.1.1.13). Section 4.3.1.1.13 was revised to clarify that, the Hanford waste management infrastructure is analyzed in this PEIS for the management of waste resulting from FFTF restart and operation. This analysis is consistent with policy and DOE Order 435.1, that DOE radioactive waste shall be treated, stored, and in the case of low-level waste, disposed of at the site where the waste is generated, if practical; or at another DOE facility. However, if DOE determines that use of the Hanford waste management infrastructure or other DOE sites is not practical or cost effective, DOE may issue an exemption under DOE Order 435.1 for the use of non-DOE facilities (i.e., commercial facilities) to store, treat, and dispose of such waste generated from the restart and operation of FFTF. In addition, Section 4.3.3.1.13 and 4.4.3.1.13 also address the potential impacts associated with the waste generated from the target fabrication and processing in FMEF and how this waste would be managed at the site.

Commentor No. 1870: Melora McGilligan-Sands

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Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: 1870-1

I DON'T WANT THE LAND AND THIS WHOLE WORLD TO BE MORE CONTAMINATED FOR THE PRESENT & FUTURE INHABITANTS! 1870-2

Name MELORA MCGILLIGAN-SANDS
Address 228 NE 29TH AVE
City, state PORTLAND OR Zip 97232

Response to Commentor No. 1870

1870-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1870-2: This PEIS has provided an estimate of the potential human health impacts associated with each of the alternatives proposed for the production of isotopes for medical uses, research and development, and as heat sources for radioisotope power systems. The methodology used is intended to provide realistic results based upon our current knowledge of the health impact of low doses of radiation. Section 4.3 of Volume 1 provides the results of this evaluation of potential health impacts that would be expected to result from a reasonable range of alternatives, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with these alternatives, including alternatives that make use of Hanford facilities, would be small.

Commentor No. 1871: Robin Bee

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Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: 1871-1

We already have nuclear warheads that 1871-2
will last for many (too many) years to
come! Already too much nuclear waste that 1871-3
has no place to safely go! We must not
use plutonium for any more space missions 1871-4

Name Robin Bee

Address Box 3991

City, state Portland, OR. Zip 97208

Response to Commentor No. 1871

1871-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1871-2: DOE notes the commentor's view on nuclear weapons. It should be noted that no component of the proposed action is for the purpose of supporting any defense- or weapons-related mission.

1871-3: DOE notes the commentor's concern regarding wastes. The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed action for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision. The waste generated from any of the proposed alternatives in the NI PEIS will be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders.

1871-4: DOE notes the commentor's opposition to the use of plutonium in space. NASA, not DOE, is responsible for spacecraft design and for determining what electric power source best suits the mission-specific needs. Through a Memorandum of Understanding with NASA, DOE provides radioisotope power systems, and the plutonium-238 that fuels them, for space missions that require or would be enhanced by their use. In addition, under the National Space Policy issued by the Office of Science and Technology Policy in September 1996, and consistent with DOE's charter under the Atomic Energy Act, DOE is responsible for maintaining the capability to provide the plutonium-238 needed to support these missions. There are approximately 9 kilograms (19.8 pounds) of plutonium-238 in the U.S. inventory available to support future NASA space missions; no viable alternative to using plutonium-238 to support these missions currently exists. Based on NASA guidance to DOE on the potential use of radioisotope power systems for upcoming space missions, it is anticipated that the existing plutonium-238 inventory will be exhausted by approximately 2005. Without an assured domestic supply of plutonium-238, DOE's ability to support future NASA space exploration missions may be lost. Section 1.2.2 of Volume 1 was revised to further clarify the purpose and need for reestablishing a domestic plutonium-238 production capability to support NASA space exploration missions.

Commentor No. 1872: Deauna J. Lynch

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Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: **1872-1**

I don't want any more chance of leakage of contaminants into our groundwater to be eventually leaked into the Columbia River - **1872-2**

Name Deauna J Lynch

Address 7251 NE 99th St.

City, state Vanc., WA Zip 98682

Response to Commentor No. 1872

1872-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1872-2: FFTF is approximately 4.5 miles from the Columbia River. There are no discharges to the river from FFTF and no radioactive or hazardous discharges to groundwater. As indicated in analyses presented in Chapter 4 of Volume 1 (e.g., Sections 4.3.1.1.4, 4.3.3.1.4, 4.4.3.1.4, 4.5.3.2.4, and 4.6.3.2.4), there would be no discernible impacts to groundwater or surface water quality at Hanford from operation of Hanford facilities that would support the nuclear infrastructure missions described in Section 1.2 of Volume 1. Further, the waste generated from the candidate facilities at Hanford would be managed in a safe and environmentally protective manner and in compliance with all applicable Federal and State laws and regulations and DOE Orders. The Hanford Site also has a comprehensive waste minimization and pollution prevention program in place as summarized in Section 3.4.11.8) that would govern any proposed site activities.

Commentor No. 1873: George Nordling

Hanford Watch
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Portland, Oregon 97214

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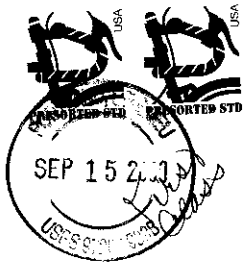

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Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: **1873-1**

I Live downstream in Portland **1873-2**
Ore. Clean up the old mess first.
We don't need Salmon that
glow in the dark.

Name George Nordling
Address 7105 S.W. Elmhurst ST
City, state _____ Zip 97223

Response to Commentor No. 1873

1873-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1873-2: DOE notes the commentor's concern about cleanup, although issues of waste cleanup activities are beyond the scope of this Nuclear Infrastructure PEIS. Cleanup at Hanford is high priority for DOE. As discussed in Chapter 4 of Volume 1 (e.g. 4.3.1.1.13, 4.3.2.1.13, 4.3.3.1.13), waste will be generated by all of the proposed alternatives, including the No Action Alternative. The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed actions for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision.

FFTF is approximately 4.5 miles from the Columbia River. There are no discharges to the river from FFTF and no radioactive or hazardous discharges to groundwater. As indicated in analyses presented in Chapter 4 of Volume 1 (e.g., Sections 4.3.1.1.4, 4.3.3.1.4, 4.4.3.1.4, 4.5.3.2.4, and 4.6.3.2.4), there would be no discernible impacts to groundwater or surface water quality at Hanford from operation of Hanford facilities that would support the nuclear infrastructure missions described in Section 1.2 of Volume 1.

Commentor No. 1874: Donald W. Fantin

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Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

Please write me your response.

I am opposed to restart of the Fast Flux Test Facility reactor because: 1874-1

clean up of existing waste should be the first & only priority at Hanford. The last thing we want or need is MORE radioactive waste. NO means No. Focus on cleaning the 54 million gallons first! 1874-2

Name Donald W Fantin

Address 2230 SE Oak ST

City, state Portland OR Zip 97214

Response to Commentor No. 1874

1874-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1874-2: DOE notes the commentor's concern regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement.

The restart of FFTF or any of the other proposed alternative facilities would not have an impact on the cleanup missions at Hanford, INEEL, or ORR. The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed action for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision. The waste generated from any of the proposed alternatives in the NI PEIS will be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and appropriate DOE orders.

Commentor No. 1875: William H. Braudt

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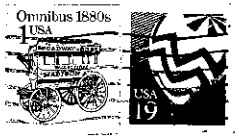
Portland, Oregon 97214



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Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: **1875-1**

there is no valid reason to **1875-2**
restart it. Hanford needs
to be cleaned up, not be **1875-3**
a part of continuing waste
production.

Name William H. Braudt

Address 2623 SE Brooklyn St.

City, state Portland, OR Zip 97202-2020

Response to Commentor No. 1875

1875-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1875-2: DOE has sought independent analysis of trends in the use of medical isotopes, and of its continuing role in this sector, consistent with its mandates under the Atomic Energy Act. In doing so, it established two expert bodies, the Expert Panel and the NERAC. In 1998, the Expert Panel, which convened to forecast future demand for medical isotopes, estimated that the expected growth rate of medical isotope use during the next 20 years would range from 7 to 14 percent per year for therapeutic applications, and 7 to 16 percent per year for diagnostic applications. These findings were later reviewed and endorsed by NERAC, established in 1999 to provide DOE with expert, objective advice regarding the future form of its isotope research and production activities. DOE has adopted these growth projections as a planning tool for evaluating the potential capability of the existing nuclear facility infrastructure to meet programmatic requirements. In the period since the initial estimates were made, the actual growth of medical isotope use has tracked at levels consistent with the Expert Panel findings. Section 1.2.1 of Volume 1 was revised to incorporate this information and to clarify DOE's role in fulfilling the U.S. research and commercial isotope production needs.

Through a Memorandum of Understanding with NASA, DOE provides radioisotope power systems, and the plutonium-238 that fuels them, for space missions that require or would be enhanced by their use. In addition, under the National Space Policy issued by the Office of Science and Technology Policy in September 1996, and consistent with DOE's charter under the Atomic Energy Act, DOE is responsible for maintaining the capability to provide the plutonium-238 needed to support these missions. There are approximately 9 kilograms (19.8 pounds) of plutonium-238 in the U.S. inventory available to support future NASA space missions. Although research to identify other potential fuel sources to support these space exploration missions has been conducted, no viable alternative to using plutonium-238 has been established. Based on NASA guidance to DOE on the potential use of radioisotope power systems for upcoming space missions, it is anticipated that the existing plutonium-238 inventory will be exhausted by approximately 2005. Without an assured domestic supply of plutonium-238, DOE's ability to support future NASA space exploration missions may be lost. Section 1.2.2 of Volume 1 was

Commentor No. 1875: William H. Braudt (Cont'd)

Response to Commentor No. 1875

revised to further clarify the purpose and need for reestablishing a domestic plutonium-238 production capability to support NASA space exploration missions.

In January 1997, President Clinton tasked his Committee of Advisors on Science and Technology (PCAST) to evaluate the current national energy research and development portfolio and to provide a strategy that ensures the United States has a program to address the Nation's energy and environmental needs for the next century. In its November 1997 report responding to this request, the PCAST Energy Research and Development Panel determined that restoring a viable nuclear energy option to help meet our future energy needs is important and that a properly focused research and development effort to address the potential long-term barriers to expanded use of nuclear power (e.g., nuclear waste, proliferation, safety, and economics) was appropriate. The PCAST panel further recommended that DOE reinvigorate its nuclear energy research and development activities to address these potential barriers. Section 1.2.3 provides information on the nuclear energy research and development mission.

1875-3: DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The DOE missions delineated in the NI PEIS would not have an impact on Hanford cleanup activities.

Commentor No. 1876: Kelly Caldwell

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76

Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: 1876-1

Nuclear Reactors are not proven to 1876-2
be safe. Dealing with waste is not
only a nightmare currently, but
potentially UNSOLVABLE. I beg 1876-3
you to stop this foolish project.

Name Kelly Caldwell
Address 2615 SE 35th Ave
City, state Portland OR Zip 97202

Response to Commentor No. 1876

1876-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1876-2: This NI PEIS has examined the risks associated with the operation of the FFTF for the purpose of producing isotopes for medical use, research and development, and for the production of radioactive heat sources for power supply systems. The EIS addressed the risks associated with normal operation and with accident conditions. (Accident analysis is described in Appendix I and the normal operations risk analysis is described in Appendix H.) Section 4.3 of Volume 1 provides the results of these evaluations. The environmental analysis showed that radiological and nonradiological risks associated with restarting FFTF would be small. Based upon these analyses, as well as the previous safe operation of the facility, FFTF can be operated safely.

1876-3: DOE notes the commentor's concern regarding wastes. The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed action for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision. The waste generated from any of the proposed alternatives in the NI PEIS will be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders.

Commentor No. 1877: Bill Boese

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Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: 1877-1

DOE SO FAR HASN'T LISTENED TO THE VOICE THAT COMES FROM THESE VARIOUS PUBLIC HEARINGS THAT CONSISTENTLY SAY NO TO NUCLEAR FACILITIES RESTARTS @ HANFORD 1877-2

Name BILL BOESE

Address 2127 N. ALBINA

City, state PORTLAND Zip 97227

Response to Commentor No. 1877

1877-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1877-2: DOE policy encourages effective public participation in its decision making process. In compliance with NEPA and CEQ regulations, DOE provided opportunity to the public to comment on the scope of the NI PEIS and the environmental impact analysis of DOE's proposed alternatives. DOE gave equal consideration to all comments, regardless of where or from whom they were received. In preparing the Final NI PEIS, DOE carefully considered comments received from the public.

Commentor No. 1878: Art Lewellan

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Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: **1878-1**

Medical isotopes can be purchased or manufactured **1878-2**

CHEAPER from other sources. Hanford is a nuclear **1878-3**

disaster & MUST be cleaned up. GOT THAT? FFTF

restart ignores the present need.

Name ART LEWELLAN

Address 3205 SE 8th #9

City, state PORTLAND, OR Zip 97202

Response to Commentor No. 1878

1878-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1878-2: The United States currently purchases approximately 90 percent of its medical radioisotopes from foreign producers, most notably Canada However, Canada only supplies a limited number of economically attractive commercial isotopes (primarily molybdenum-99), and it does not supply research isotopes or the diverse array of medical and industrial isotopes considered in the NI PEIS. As such, reliance on Canadian sources of isotopes to satisfy projected U.S. isotope needs would not meet DOE's mission requirements.

Although other manufacturers produce medical radioisotopes, DOE remains the key provider for a large number of radioisotopes that are used in relatively small quantities by individual researchers at universities and hospitals. Because their application is initially experimental, these isotopes are not generally purchased in large-enough quantities to make their production financially attractive to private industry. However, supplies of many research isotopes are not readily available from existing domestic or foreign sources, causing a number of medical research programs to be terminated, deferred, or seriously delayed. Under the NI PEIS proposed action and consistent with its mandates under the Atomic Energy Act, DOE would enhance its existing nuclear facility infrastructure to, among other things, more effectively support production of radioisotopes for medical applications and research. DOE's intent is to complement commercial sector capabilities to ensure that a reliable supply of isotopes is available in the U.S. to meet future demand, and to encourage the commercial sector to privatize the production of isotopes that have established applications to a level that would support commercial ventures. Section 1.2.1 of Volume 1 has been revised to clarify DOE's isotope production role and other producers' capabilities to fulfill U.S. isotope needs.

1878-3: DOE notes the commentor's concern regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The DOE missions delineated in the NI PEIS would not have an impact on Hanford cleanup activities.

Commentor No. 1879: Anonymous

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Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: 1879-1

any gain in terms of medical isotopes use will be off set by an increase in illness of cancer from Nuclear Waste. Creating pollution causes cancer it does not save us from Cancer. 1879-2

Name

Address

City, state Zip

Response to Commentor No. 1879

1879-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1879-2: DOE notes the commentor's concern regarding waste generation. As identified in Section 4.3.1.1.13 of the NI PEIS, the restart of FFTF would generate about 63 cubic meters of additional radioactive waste (e.g., solid low-level radioactive waste) annually, in addition to nonhazardous wastes. This would account for about 2,205 cubic meters of additional radioactive waste to be generated over the 35-year period of nuclear infrastructure operations and is small in comparison to the waste generated by current Hanford activities. It is DOE's policy that all wastes be managed (i.e., treated, stored and disposal) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders.

The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed actions for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed.

This PEIS has provided an estimate of the potential human health impacts associated with a range of reasonable alternatives proposed for the production of isotopes, some of which include the restart of FFTF. The methodology used is intended to provide realistic results based upon our current knowledge of the health impact of low doses of radiation. Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that would be expected to result from implementation of Alternative 1, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with restarting FFTF would be small.

Commentor No. 1880: R. Skar

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U.S. Department of Energy
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NE-50
19901 Germantown Road
Germantown, Maryland 20874-1290

Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: 1880-1

It is a total waste of 1880-2
public money, a mind-boggling
danger to the health + livelihood 1880-3
of NW citizens and a scam
to keep nuclear weapons research going. 1880-4

Name R. SKAR

Address 2227 SE Madison

City, state PORTLAND OR Zip 97214

Response to Commentor No. 1880

1880-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1880-2: DOE notes the commentor's opinion regarding the use of public funds.

1880-3: The commentor's position regarding the restart of FFTF is noted. The PEIS has evaluated the risks associated with a reasonable range of alternatives for isotope production. The analysis addresses both normal operation and with accident conditions. Accident analysis is described in Appendix I and the normal operations risk analysis is described in Appendix H. Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that would be expected to result from implementation of Alternative 1, which includes the restart of FFTF. The analysis addresses normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with restarting FFTF would be small.

1880-4: DOE notes the commentor's views. The NI PEIS evaluates a range of reasonable alternatives for enhancing DOE's existing nuclear facility infrastructure for the purposes of addressing three primary needs:

1) to support the need for increased domestic production of isotopes for medical, research, and industrial uses, as initially identified by a panel of experts in the medical field and reaffirmed by the Nuclear Energy Research Advisory Committee;

2) to support future NASA space exploration missions by re-establishing a domestic capability to produce plutonium-238, a fuel source that is required for deep space missions and which the U.S. has no long-term, assured supply; and

3) to support civilian nuclear research and development needs in order to maintain the clean, safe, and reliable use of nuclear power as a viable component of the United States' energy portfolio. However, no component of the proposed action is for the purpose of supporting any defense or weapons related mission.

Commentor No. 1881: G. Larson

Hanford Watch
2285 SE Cypress
Portland, Oregon 97214

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Ms. Colette Brown
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Germantown, Maryland 20874-1290

76

Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: **1881-1**

The FFTF is unneeded, unsafe, expensive, and an existing and potentially immense, detrimental to the entire NW. Do not endanger my livelihood for products that may never be [illegible] or save [illegible] **1881-2**

Name Gabriel Larson

Address ~~Gabriel Larson~~ 2524 NE Flanders, #B

City, state Portland, OR Zip 97232

Response to Commentor No. 1881

1881-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1881-2: DOE notes the concerns expressed in the comment with respect to restart of FFTF. The need for the irradiation services that would be provided by FFTF (or the other alternative irradiation facilities, e.g. a new research reactor) is addressed in detail in Section 1.2 of the NI PEIS.

The environmental impacts associated with operation of the FFTF and support facilities during normal operations and from postulated accidents are presented and discussed in Section 4.3 of the NI PEIS. All impacts to human health and to ecological resources would be small in the immediate area of the Hanford site and negligible at all distant locations.

The costs of proposed actions are not required by NEPA and CEQ regulations to be included in a PEIS. However, DOE prepared a separate cost report which was made available immediately upon release of the final NI PEIS on the web site (http://www.nuclear.gov) and in the public reading rooms. DOE has also provided a summary of the cost report in Appendix P of the final NI PEIS.

Commentor No. 1882: Anthony J. McGilligan-Sands

Hanford Watch
2265 SE Cypress
Portland, Oregon 97214

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Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: 1882-1

UNTIL YOUR SCIENTISTS CAN FIGUER OUT WHAT TO DO WITH THE WASTE, AND RIGHT NOW THE IS NO "SAFE" WAY TO STORE THIS WASTE ~~THINK~~ IT IS UBSURD THAT WE ~~THE~~ WOULD START UP YET ANOTHER NUCLEAR REACTOR 1882-2

Name Anthony J McGilligan-Sands

Address 2228 NE 29th Ave

City, state PDX, OR Zip 97232

Response to Commentor No. 1882

1882-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1882-2: DOE notes the commentor's concern regarding the storage of wastes. The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed action for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision. The waste generated from any of the proposed alternatives in the NI PEIS will be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders.

Commentor No. 1883: Jana Demartini-Svoboda

Hanford Watch
2285 SE Cypress
Portland, Oregon 97214

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Germantown, Maryland 20874-1290

Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: 1883-1

the potential threat to our environment is too great to allow the ~~FFTF~~ be re-started for whatever reason. 1883-2

Name Jana Demartini-Svoboda
Address 4729 SE 34th Ave.
City, state Portland, OR Zip 97202

Response to Commentor No. 1883

1883-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1883-2: DOE notes the concern expressed in the comment on the potential environmental impacts of restarting FFTF. The environmental impacts associated with operation of the FFTF and support facilities at Hanford during normal operations and from postulated accidents are presented and discussed in Section 4.3 of the NI PEIS. All impacts to human health and to ecological resources would be small in the immediate area of the Hanford site and negligible at all distant locations.

Commentor No. 1884: Sheryl Murray-Hansen

Hanford Watch
2285 SE Cypress
Portland, Oregon 97214

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SEP 15 2

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Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: 1884-1

It is an irresponsible and clearly unnecessary action. 1884-2
Hanford's tanks are already leaking and explosive. The USDOE needs to honor it's commitment to clean-up the mess at Hanford as stated in the Tri-Party agreement. The USDOE needs to take the FFTF off of 'hot stand-by' and stop diverting clean-up money they are using to keep it there. Hanford's high-level nuclear waste tanks are already leaking radioactive waste into the groundwater which is moving imminently closer to the waters of the Columbia. 1884-3
Citizens of Portland, a unanomous Portland City Council, Gov. Kitzahber, Sen. Ron Wyden, Rep. Blumenhauer and I call for the shut down of the FFTF and the continuance of the clean-up mission. 1884-4

Name SHERYL MURRAY-HANSEN 1884-3

Address 2156 N WYGANT ST

City, state PORTLAND OR Zip 97217

Response to Commentor No. 1884

1884-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF and support for Alternative 5, Permanently Deactivate FFTF.

1884-2: DOE has sought independent analysis of trends in the use of medical isotopes, and of its continuing role in this sector, consistent with its mandates under the Atomic Energy Act. In doing so, it established two expert bodies, the Expert Panel and the NERAC. In 1998, the Expert Panel, which convened to forecast future demand for medical isotopes, estimated that the expected growth rate of medical isotope use during the next 20 years would range from 7 to 14 percent per year for therapeutic applications, and 7 to 16 percent per year for diagnostic applications. These findings were later reviewed and endorsed by NERAC, established in 1999 to provide DOE with expert, objective advice regarding the future form of its isotope research and production activities. DOE has adopted these growth projections as a planning tool for evaluating the potential capability of the existing nuclear facility infrastructure to meet programmatic requirements. In the period since the initial estimates were made, the actual growth of medical isotope use has tracked at levels consistent with the Expert Panel findings. Section 1.2.1 of Volume 1 was revised to incorporate this information and to clarify DOE's role in fulfilling the U.S. research and commercial isotope production needs.

Through a Memorandum of Understanding with NASA, DOE provides radioisotope power systems, and the plutonium-238 that fuels them, for space missions that require or would be enhanced by their use. In addition, under the National Space Policy issued by the Office of Science and Technology Policy in September 1996, and consistent with DOE's charter under the Atomic Energy Act, DOE is responsible for maintaining the capability to provide the plutonium-238 needed to support these missions. There are approximately 9 kilograms (19.8 pounds) of plutonium-238 in the U.S. inventory available to support future NASA space missions. Although research to identify other potential fuel sources to support these space exploration missions has been conducted, no viable alternative to using plutonium-238 has been established. Based on NASA guidance to DOE on the potential use of radioisotope power systems for upcoming space missions, it is anticipated that the existing plutonium-238 inventory will be exhausted by approximately 2005. Without an assured domestic supply of plutonium-238, DOE's ability to support future NASA space exploration missions may be lost. Section 1.2.2 of Volume 1 was revised to further clarify the purpose and need for

Commentor No. 1884: Sheryl Murray-Hansen

Response to Commentor No. 1884

reestablishing a domestic plutonium-238 production capability to support NASA space exploration missions.

In January 1997, President Clinton tasked his Committee of Advisors on Science and Technology (PCAST) to evaluate the current national energy research and development portfolio and to provide a strategy that ensures the United States has a program to address the Nation's energy and environmental needs for the next century. In its November 1997 report responding to this request, the PCAST Energy Research and Development Panel determined that restoring a viable nuclear energy option to help meet our future energy needs is important and that a properly focused research and development effort to address the potential long-term barriers to expanded use of nuclear power (e.g., nuclear waste, proliferation, safety, and economics) was appropriate. The PCAST panel further recommended that DOE reinvigorate its nuclear energy research and development activities to address these potential barriers. Section 1.2.3 provides information on the nuclear energy research and development mission.

1884-3: DOE notes the commentor's concern regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. A Tri-Party Agreement change was made to place the milestones for FFTF's permanent deactivation in abeyance until the DOE reaches a decision on whether the facility will be used to meet mission needs. Public meetings were held on this formal milestone change.

The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

1884-4: See response to comment 1884-1.

Commentor No. 1885: Maria Simon

Hanford Watch
2285 SE Cypress
Portland, Oregon 97214

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Germantown, Maryland 20874-1290

Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: **1885-1**

① I do not believe there is a compelling need for the medical isotopes, nor for NASA's use, which can be obtained from other existing facilities. **1885-2**

② There is an urgent and compelling need to clean up the toxic waste existing at Hanford, and assure that we will not have to clean up more, or to court potential disaster. **1885-3**

Name Maria Simon

Address 5831 SE. Belmont

City, state Portland, OR. Zip 97215

Response to Commentor No. 1885

1885-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1885-2: DOE has sought independent analysis of trends in the use of medical isotopes, and of its continuing role in this sector, consistent with its mandates under the Atomic Energy Act. In doing so, it established two expert bodies, the Expert Panel and the NERAC. In 1998, the Expert Panel, which convened to forecast future demand for medical isotopes, estimated that the expected growth rate of medical isotope use during the next 20 years would range from 7 to 14 percent per year for therapeutic applications, and 7 to 16 percent per year for diagnostic applications. These findings were later reviewed and endorsed by NERAC, established in 1999 to provide DOE with expert, objective advice regarding the future form of its isotope research and production activities. DOE has adopted these growth projections as a planning tool for evaluating the potential capability of the existing nuclear facility infrastructure to meet programmatic requirements. In the period since the initial estimates were made, the actual growth of medical isotope use has tracked at levels consistent with the Expert Panel findings.

The United States currently purchases approximately 90 percent of its medical radioisotopes from foreign producers, most notably Canada. However, Canada only supplies a limited number of economically attractive commercial isotopes (primarily Molybdenum-99), and it does not supply research isotopes or the diverse array of medical and industrial isotopes considered in the NI PEIS. Further, supplies of many research isotopes are not readily available from existing foreign or domestic sources, causing a number of medical research programs to be terminated, deferred, or seriously delayed. As such, reliance on these other sources of isotopes to satisfy projected U.S. isotope needs would not meet DOE's mission requirements. Section 1.2.1 of Volume 1 has been revised to clarify DOE's isotope production role and other producers' capabilities to fulfill U.S. isotope needs.

Through a Memorandum of Understanding with NASA, DOE provides radioisotope power systems, and the plutonium-238 that fuels them, for space missions that require or would be enhanced by their use. In addition, under the National Space Policy issued by the Office of Science and Technology Policy in September 1996, and consistent with DOE's charter under the Atomic Energy Act, DOE is responsible for maintaining the capability to provide the plutonium-238 needed to support these

Commentor No. 1885: Maria Simon (Cont'd)

Response to Commentor No. 1885

missions. There are approximately 9 kilograms (19.8 pounds) of plutonium-238 in the U.S. inventory available to support future NASA space missions. Although research to identify other potential fuel sources to support these space exploration missions has been conducted, no viable alternative to using plutonium-238 has been established. Based on NASA guidance to DOE on the potential use of radioisotope power systems for upcoming space missions, it is anticipated that the existing plutonium-238 inventory will be exhausted by approximately 2005. Without an assured domestic supply of plutonium-238, DOE's ability to support future NASA space exploration missions may be lost. DOE could purchase plutonium-238 from Russia; however, for supply reliability reasons and concern of nuclear nonproliferation, DOE's preference is to establish a domestic plutonium-238 production capability. Section 1.2.2 of Volume 1 was revised to further clarify the purpose and need for reestablishing a domestic plutonium-238 production capability to support NASA space exploration missions.

1885-3: DOE notes the commentor's concern regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The DOE missions delineated in the NI PEIS would not have an impact on Hanford cleanup activities.

Commentor No. 1886: Nate and Andrea Hildebrand

Hanford Watch
2285 SE Cypress
Portland, Oregon 97214

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Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: **1886-1**

NOT ENOUGH FACTS! Not enough information on **1886-2**
real reasons. For energy – use solar, wind. For **1886-3**
Medical isotopes – use an accelerator if anything. **1886-4**
For space exploration – work on Earth living first. **1886-5**
For weapons development – NEVER

Name Nate & Andrea Hildebrand

Address 1317 SE Main St

City, state Portland OR Zip 97214

Response to Commentor No. 1886

1886-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF and support for Alternative 3, Construct New Accelerator(s), for the production of medical isotopes.

1886-2: DOE has sought independent analysis of trends in the use of medical isotopes, and of its continuing role in this sector, consistent with its mandates under the Atomic Energy Act. In doing so, it established two expert bodies, the Expert Panel and the NERAC. In 1998, the Expert Panel, which convened to forecast future demand for medical isotopes, estimated that the expected growth rate of medical isotope use during the next 20 years would range from 7 to 14 percent per year for therapeutic applications, and 7 to 16 percent per year for diagnostic applications. These findings were later reviewed and endorsed by NERAC, established in 1999 to provide DOE with expert, objective advice regarding the future form of its isotope research and production activities. DOE has adopted these growth projections as a planning tool for evaluating the potential capability of the existing nuclear facility infrastructure to meet programmatic requirements. In the period since the initial estimates were made, the actual growth of medical isotope use has tracked at levels consistent with the Expert Panel findings. Section 1.2.1 of Volume 1 was revised to incorporate this information and to clarify DOE's role in fulfilling the U.S. research and commercial isotope production needs.

Through a Memorandum of Understanding with NASA, DOE provides radioisotope power systems, and the plutonium-238 that fuels them, for space missions that require or would be enhanced by their use. In addition, under the National Space Policy issued by the Office of Science and Technology Policy in September 1996, and consistent with DOE's charter under the Atomic Energy Act, DOE is responsible for maintaining the capability to provide the plutonium-238 needed to support these missions. There are approximately 9 kilograms (19.8 pounds) of plutonium-238 in the U.S. inventory available to support future NASA space missions. Although research to identify other potential fuel sources to support these space exploration missions has been conducted, no viable alternative to using plutonium-238 has been established. Based on NASA guidance to DOE on the potential use of radioisotope power systems for upcoming space missions, it is anticipated that the existing plutonium-238 inventory will be exhausted by approximately 2005. Without an assured domestic supply of plutonium-238, DOE's ability to support future NASA space

Commentor No. 1886: Nate and Andrea Hildebrand

Response to Commentor No. 1886

exploration missions may be lost. Section 1.2.2 of Volume 1 was revised to further clarify the purpose and need for reestablishing a domestic plutonium-238 production capability to support NASA space exploration missions.

In January 1997, President Clinton tasked his Committee of Advisors on Science and Technology (PCAST) to evaluate the current national energy research and development portfolio and to provide a strategy that ensures the United States has a program to address the Nation's energy and environmental needs for the next century. In its November 1997 report responding to this request, the PCAST Energy Research and Development Panel determined that restoring a viable nuclear energy option to help meet our future energy needs is important and that a properly focused research and development effort to address the potential long-term barriers to expanded use of nuclear power (e.g., nuclear waste, proliferation, safety, and economics) was appropriate. The PCAST panel further recommended that DOE reinvigorate its nuclear energy research and development activities to address these potential barriers. Section 1.2.3 provides information on the nuclear energy research and development mission.

1886-3: DOE notes the commentor's interest in solar and wind energy. The purpose of this Nuclear Infrastructure PEIS is to evaluate the environmental impacts of a range of reasonable alternatives to fulfill the requirements of the DOE missions, which include the production of medical and industrial isotopes, the production of plutonium-238, and civilian nuclear energy research and development.

1886-4: See response to comment 1886-1.

1886-5: DOE notes the commentor's opposition to development of nuclear weapons and space exploration. The scope of this Nuclear Infrastructure PEIS is limited to analysis of alternatives to fulfill the requirements of the DOE missions, which include the production of medical and industrial isotopes, the production of plutonium-238, and civilian nuclear energy research and development. The three missions are civilian nuclear energy missions and are not defense-related.

Commentor No. 1887: Craig Nordling

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Portland, Oregon 97214

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Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS)

I am opposed to restart of the Fast Flux Test Facility reactor because: 1887-1

No method has yet been found for the long term storage of radioactive waste, so I oppose any more production of said waste. 1887-2

Name Craig Nordling

Address 7105 S.W. Elmhurst

City, state Tigard Or. Zip 97223

Response to Commentor No. 1887

1887-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1887-2: DOE notes the commentor's concern regarding the storage of wastes. The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed action for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision. The waste generated from any of the proposed alternatives in the NI PEIS will be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders.

Commentor No. 1888: Grace Weinstein

Hanford Watch
2285 SE Cypress
Portland, Oregon 97214

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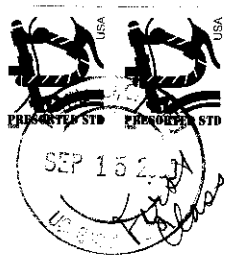

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19901 Germantown Road
Germantown, Maryland 20874-1290

Public comment on Nuclear Infrastructure Draft Programmatic Environmental Impact Statement (NI PEIS) Alternative 5

I am opposed to restart of the Fast Flux Test Facility reactor because: **1888-1**

The Columbia River belongs to all of us in the N.W.— **1888-2**
The U.S. Government has a moral obligation to clean up Hanford, not to add another radioactive waste stream to jeopardize human health + safety. Medical isotopes can be produced at other DOE sites + workers at Hanford will eventually need to be restrained anyway. For the common good I am against this FFTF re-start **1888-3** **1888-4** **1888-5** **1888-1**

Name GRACE WEINSTEIN

Address 7352 S.W. 26th Ave.

City, state Portland, OR Zip 97219

Response to Commentor No. 1888

1888-1: DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF, and opposition to Alternative 1, Restart FFTF.

1888-2: DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing Hanford cleanup activities are high priority to DOE. Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

1888-3: DOE notes the commentor's concern regarding waste generation. As identified in Section 4.3.1.1.13 of the NI PEIS, the restart of FFTF would generate about 63 cubic meters of additional radioactive waste (e.g., solid low-level radioactive waste) annually, in addition to nonhazardous wastes. This would account for about 2,205 cubic meters of additional radioactive waste to be generated over the 35-year period of nuclear infrastructure operations and is small in comparison to the waste generated by current Hanford activities. It is DOE's policy that all wastes be managed (i.e., treated, stored and disposal) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders.

The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed actions for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed.

This PEIS has provided an estimate of the potential human health impacts associated with a reasonable range of alternatives for the production of isotopes for medical uses, research and development, and as heat sources for radioisotope power systems, including the restart of FFTF. The methodology used is intended to provide realistic results based upon our current knowledge of the health impact of low doses of radiation. Section 4.3 of Volume 1 provides the results of this evaluation of potential health impacts that would be expected to result from implementation of any of

the alternatives (some of which include restart of FFTF), including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with restarting each of the alternatives would be small.

1888-4: Currently, approximately 50 percent of DOE's isotope production capability is being used. Much of the remaining isotope production capability is dispersed throughout the DOE complex. This capability supports secondary missions, but cannot be effectively used due to the operating constraints associated with the facilities' primary missions basic energy sciences or defense). DOE is currently meeting most of its short-term requirements. However, in the long-term (next 5 to 10 years) there will be a shortfall in available DOE capacity to meet demand. Should the isotope demand grow consistent with the Expert Panel Report, as it has recently, or if DOE's market share increases, there will be a need for expanded isotope production capacity in the short-term (less than 5 years).

1888-5: FFTF would be deactivated under Alternatives 2 through 5 (See Section 2.5 of Volume 1). If any of these alternatives were selected for implementation, deactivation of FFTF would result in the loss of approximately 300 direct jobs (See Section 4.4.1.2.8 of Volume 1). The loss of 300 direct jobs at FFTF due to deactivation would potentially result in the loss of up to 760 indirect jobs in the Hanford region. However, it is expected that some of the displaced FFTF workers would be employed by other projects at Hanford such as construction of the tank waste remediation system.

Commentor No. 1889: Max Wilkins

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Ms Colette Broxon
U.S. Department of Energy
Office of Space and Defense
Power Systems NE-50
19901 Germantown Rd
Germantown, Maryland
20874-1290

Dear Secretary Richardson,

Please honor the Clean-Up Agreement and Shut Down the FFTF Nuclear Reactor: 1889-1 1889-2

For there to be any activities that either continues or amplifies the risk of nuclear waste seeping into the great Columbia river is unconscionable. The subjects millions of people, making life to longer-unacceptable 1889-3

Sincerely,

Name Max Wilkins Address 13703 SE Clay St.
City Portland State OR. ZIP 97233

Please include my comments in the official record for the Pu-238/FFTF Environmental Impact Statement. Also, please respond to my comments and concerns.

Response to Commentor No. 1889

1889-1: DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. A Tri-Party Agreement change was made to place the milestones for FFTF's permanent deactivation in abeyance until the DOE reaches a decision on whether the facility will be used to meet mission needs. Public meetings were held on this formal milestone change. The DOE missions delineated in the NI PEIS would not have an impact on Hanford cleanup activities.

1889-2: DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

1889-3: DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing Hanford cleanup activities are high priority to DOE. Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., Washington State Department of Ecology, U.S. Environmental Protection Agency, and the U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

FFTF is approximately 4.5 miles from the Columbia River. There are no discharges to the river from FFTF and no radioactive or hazardous discharges to groundwater. As indicated in analyses presented in Chapter 4 of Volume 1 (e.g., Sections 4.3.1.1.4, 4.3.3.1.4, 4.4.3.1.4, 4.5.3.2.4, and 4.6.3.2.4), there would be no discernible impacts to groundwater or surface water quality at Hanford from operation of Hanford facilities that would support the nuclear infrastructure missions described in Section 1.2 of Volume 1.

Commentor No. 1890: Chelsea Brown

Chelsea Brown
9/24/00
D-Block

I do not ~~a~~ agree or support the restart of ~~the~~ FFTF at Handford nuclear reactor. The reason being ~~fro~~ from what I naved learned about this situation. I belive that The Handford nuclear reactor should not be re opened for operation. In 1946 this plant was in opperation ~~to~~ by ~~a~~ General Electric to design nuclear weapons with petrolium. As years past the ~~effects~~ plant became ~~to~~ toxic to the enviorment. ~~Sum~~ The toxins effected many people and animals very suveakely. People and animals were dying because, of the toxic waste, frome the Handford Plant. In 1989 ~~A~~ The Handford plant was shut down do to the suvere damages the waste cause the enviornment. From what I learned is that it would take at least 80 yrs. to properly clean up the waste. The toxion waste of the Handford plant could be deadly to people, ~~and~~ animals and the enviorment. So, if the Handford plant was ever to be reopened our enviorment and our lives would be in extreame danger. If you really care about your life take a stand and voice your opinion. For these reasons I've explained I do not oppose the reopening of the FFTF at Handford nuclear reactor.

1890-1

1890-2

1890-3

1890-1

Response to Commentor No. 1890

1890-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF (It is assumed that the commentor's conclusionary statement was intended to reiterate their opposition to restart of FFTF.)

1890-2: DOE notes the commentor's opposition to the use of FFTF for the enhancement of its nuclear facility infrastructure. The FFTF reactor at Hanford was constructed and initiated operations in the mid- 1980s making it the DOE's newest reactor. All of the DOE missions are for civilian purposes. No weapons material will be produced.

The environmental impacts associated with operation of the FFTF are addressed in Section 4.3 of Volume 1 of the NI PEIS. The impacts are shown to be small. These impacts specifically include the risks to human health during normal operations and associated with postulated accidents. Over the 35-year operational period no fatalities would be expected among workers or in the general public in the vicinity of Hanford or at distant locations.

No food or water restrictions are in place outside the Hanford Reservation as a result of Hanford activities.

1890-3: Hanford is committed to cleaning up its wastes in a safe and environmentally acceptable manner. Although beyond the scope of this NI PEIS, ongoing Hanford cleanup activities are of high priority to DOE. The restart of FFTF would not divert or reprogram budgeted funds designated for this effort. The management of all wastes associated with restart and operation of the FFTF is addressed in Section 4.3.1.1.13 of the NI PEIS. It is DOE's policy that all wastes be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders. The management of these wastes would be well within management capacities and would not be expected to adversely affect the environment. Impacts on people and ecological resources would be small.

Commentor No. 1891: Tabitha Gilmore

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

Draft PEIS Comment Form

I oppose the Restart of the FFTF or Modern nuclear
Reactor because I don't [illegible] in the [illegible]
[illegible] I don't like the pollution either. You have [illegible]
[illegible] our living.

1891-1
1891-2
1891-3

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- returning this comment form to the registration desk at the meeting or to the address below
- calling toll-free and leaving your comments: 1-877-562-4593
- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): Tabitha Gilmore

Organization:

Home/Organization Address (circle one):

City: State: Zip Code:

Telephone (optional):

E-mail (optional):

COMMENTS MUST BE POSTMARKED BY September ~~11~~ 18, 2000

For more information contact: Colette E. Brown, NE-50
U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874
Toll-free Telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592
E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

7/12/00

Response to Commentor No. 1891

1891-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1891-2: Cancers are believed to be caused by a combination of hereditary and environmental factors, including exposure to ionizing radiation and chemical agents. This NI PEIS provides an estimate of the potential human health impacts associated with each of the alternatives considered for the production of radioisotopes for medical and industrial uses, research and development, and as heat sources for radioisotope power systems (See Sections 1.2 and 2.5 of Volume 1). The methodology used in the analysis of health effects, which is detailed in Appendixes H through J, is based upon our current knowledge of the health impacts that may result from exposure to low doses of ionizing radiation and chemical agents. Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that would be expected to result from implementation of each of the alternatives (Alternative 1 includes restart of FFTF), including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with each alternative, including restarting FFTF, would be small.

1891-3: DOE notes the commentor's concern about potential environmental impacts associated with FFTF restart. The environment impacts from FFTF operations are addressed in Section 4.3 of the NI PEIS. All air emissions and wastewater discharges would be in accordance with applicable permit and regulatory requirements. The release of criteria air pollutants would result in concentrations well below Federal and state air standards (Table 4-13). The release of radioactivity and hazardous chemicals into the atmosphere would have a negligible effect on human health (Tables 4-17 and 4-19). There would be no discernible impacts to groundwater or surface water quality (Section 4.3.1.1.4). It is concluded that operation of FFTF would result in small impacts to the biosphere.

Commentor No. 1892: Adriana Morales

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

Draft PEIS Comment Form

I strongly oppose the restart of the FFTF at Hanford Nuclear reactor. I'm outraged that you would even consider restarting the FFTF. I personally think this would be a senseless act, considering it is unhealthy for many Oregonian citizens. This is morally wrong. 1892-1 1892-2

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- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): Adriana Morales

Organization:

Home/Organization Address (circle one):

City: Portland State: OR Zip Code: 97230

Telephone (optional):

E-mail (optional):

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E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

7/12/00

Response to Commentor No. 1892

1892-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1892-2: Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that would be expected to result from implementation of Alternative 1 (which includes restart of FFTF), including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks to all people, including citizens of Oregon and Washington, associated with restarting FFTF would be small.

Commentor No. 1893: Kimberly T.

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

Draft PEIS Comment Form

I oppose the restart of the FFTF at Hanford nuclear reactor. Because it can kill people and animals. It affects too many things on the Earth. 1893-1 1893-2

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- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): Kimberly T.

Organization:

Home/Organization Address (circle one): ~~Portland OR 97213~~

City: Portland State: OR Zip Code: 97213

Telephone (optional):

E-mail (optional):

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7/12/00

Response to Commentor No. 1893

1893-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1893-2: The commentor's position regarding the restart of FFTF is noted. Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that would be expected to result from implementation of Alternative 1, which includes restart of FFTF, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks to all citizens, including those in Washington and Oregon, associated with restarting FFTF would be small.

The NI PEIS identifies (in Chapter 3 of Volume 1) endangered species that live on or near all of the candidate sites, as well as aquatic and wetlands areas that may be impacted by operations at candidate locations. According to an International Atomic Energy Agency (IAEA) publication (IAEA Technical Report Series No. 332, Effects of Ionizing Radiation on Plants and Animals at Levels Implied by Current Radiation Protection Standards), a dose rate of 100 millirem per year to the most exposed human will lead to dose rates to plants and animals of less than 0.1 rad per day. The IAEA concluded that a dose rate of 0.1 rad per day or less for animals and 1 rad per day or less for plants would not affect these populations. The largest individual dose for any of the nuclear infrastructures alternatives under normal operations would be less than 0.1 millirem, which is three orders of magnitude less than the IAEA threshold for adverse effects. Therefore, implementation of any of the range of reasonable nuclear infrastructure alternatives analyzed would not be expected to result in an adverse impacts on plants and animals living in potentially affected areas around the candidate sites.

Commentor No. 1894: Misty East

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

Draft PEIS Comment Form

I oppose the restart of the FFTF at Hanford Nuclear reactor. 1894-1

I feel that having this company open has destoried many lives, people goals. And they have lost there chance of being a lawyer or going into the AMY. 1894-2

I also feel that destorying our Animals our plant our water, Mother's My fellow friends scared of what is going to happen, or not doing the right thing, like not giving their children the right nutrients they need.

I feel that before you make any decisions about re-opening the reactor think of our futures. 1894-3

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- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): Misty East

Organization:

Home/Organization Address (circle one): 2733 SE 84th

City: Portland State: OR Zip Code: 97266

Telephone (optional): 722-4028

E-mail (optional): Sugars@werkz.com

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E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

7/12/00

Response to Commentor No. 1894

1894-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1894-2: DOE notes the commentor's opposition to the use of FFTF for the enhancement of its nuclear facility infrastructure. The environmental impacts associated with operation of the FFTF and support facilities at Hanford during normal operations and from postulated accidents are presented and discussed in Section 4.3 of Volume 1 of the NI PEIS. All impacts to human health and to ecological resources would be small in the immediate area of the Hanford Site and negligible at all distant locations.

All environmental parameters (e.g., air, soil, surface water, groundwater, vegetation, animals, etc.) in and around the Hanford Site are monitored on a set frequency. The information is available to the public in annual monitoring reports. No food or water restrictions are currently in place outside the Hanford Reservation as a result of Hanford activities.

1894-3: DOE notes the concern expressed in the comment on the potential impacts associated with FFTF restart described in the NI PEIS. The environmental impacts associated with operation of the FFTF and support facilities at Hanford during normal operations and from postulated accidents are presented and discussed in Section 4.3. All impacts to human health and to ecological resources would be small in the immediate area of the Hanford site and negligible at all distant locations.

Commentor No. 1895: Jesse Hayres

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

Draft PEIS Comment Form

I oppose stronaly
the reopening of Hanford nuclear
reactor. General Electric has
poisoned our northwest enough.
You've ruin familys killed people
and covered it up the whole
time. I can't believe it is even
a option to reopen it.

1895-1

1895-2

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- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): Jesse Hayres

Organization: pace Am

Home/Organization Address (circle one):

City: portland State: OR Zip Code: 97230

Telephone (optional):

E-mail (optional):

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7/12/00

Response to Commentor No. 1895

1895-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1895-2: General Electric is not involved with any part of the DOE missions addressed in the NI PEIS. There have been no serious safety-related accidents or accidental releases of hazardous or radioactive materials causing injury or harm to workers, or posing any threat or harm to the offsite public at FFTF or the proposed Hanford support facilities during their respective lifetimes.

The environmental impacts associated with operation of the FFTF and support facilities at Hanford during normal operations and from postulated accidents are presented and discussed in Section 4.3 of Volume 1 of the NI PEIS. All impacts to human health and to ecological resources would be small in the immediate area of the Hanford Site and negligible at all distant locations.

Commentor No. 1896: Melinda Arnone

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

Draft PEIS Comment Form

I oppose the restart of the FFTF at Hanford nuclear reactor. 1896-1
I don't believe that there could ever be a good enough reason to restart the FFTF. There are too 1896-2
many problems that would happen. People would die, become sterile, have deformed children, and get long-term 1896-3
sickness that would conclude in death. I would also like our rivers to get cleaner, not more radio-active. 1896-4

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- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): Melinda Arnone

Organization: Parkrose High School

Home/Organization Address (circle one): 12003 NE Shaver

City: Portland State: OR Zip Code: 97220

Telephone (optional):

E-mail (optional):

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7/12/00

Response to Commentor No. 1896

1896-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1896-2: DOE notes the commentor's views. Consistent with its mandates under the Atomic Energy Act, DOE seeks to maintain and enhance its infrastructure for the purposes of addressing three primary needs:

1) to support the need for increased domestic production of isotopes for medical, research, and industrial uses, as initially identified by a panel of experts in the medical field and reaffirmed by the Nuclear Energy Research Advisory Committee;

2) to support future NASA space exploration missions by re-establishing a domestic capability to produce plutonium-238, a fuel source that is required for deep space missions and which the U.S. has no long-term, assured supply; and

3) to support civilian nuclear research and development needs in order to maintain the clean, safe, and reliable use of nuclear power as a viable component of the United States' energy portfolio. Section 1.2 of Volume 1 was revised to clarify the purpose and need of the proposed action.

1896-3: This PEIS has provided an estimate of the incremental potential human health impacts associated with a range of reasonable alternatives (one of which includes the restart of FFTF) for the production of isotopes for medical uses, research and development, and as heat sources for radioisotope power systems. The methodology used is intended to provide realistic results based upon our current knowledge of the health impact of low doses of radiation. Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that would be expected to result from implementation of these alternatives, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with each alternative and with restarting FFTF would be small. As stated in Appendix H of the EIS, other human health impacts (non-fatal cancers and genetic mutations) occur with a lower frequency for the same level of exposure to low levels of radiation. Since the most likely impact on the population from all of the alternatives

Commentor No. 1896: Melinda Arnone (Cont'd)

Response to Commentor No. 1896

is no additional fatalities, it follows that the expected result for these other health impacts is no additional impact.

1896-4: FFTF is approximately 4.5 miles from the Columbia River. There are no discharges to the river from FFTF and no radioactive or hazardous discharges to groundwater. As indicated in analyses presented in Chapter 4 of Volume 1 (e.g., Sections 4.3.1.1.4, 4.3.3.1.4, 4.4.3.1.4, 4.5.3.2.4, and 4.6.3.2.4), there would be no discernible impacts to groundwater or surface water quality at Hanford from operation of Hanford facilities that would support the nuclear infrastructure missions described in Section 1.2 of Volume 1. Further, the waste generated from the candidate facilities at Hanford would be managed in a safe and environmentally protective manner and in compliance with all applicable Federal and State laws and regulations and DOE Orders. The Hanford Site also has a comprehensive waste minimization and pollution prevention program in place as summarized in Section 3.4.11.8 that would govern any proposed site activities.

Commentor No. 1897: Mary Conway

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

Draft PEIS Comment Form

I oppose the restart of the FFTF at Hanford nuclear reactor because I would like the rivers to get better not worse. The nuclear reactor is killing fish and people. So why restart it? 1897-1 1897-2 1897-3

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- faxing your comments toll-free to: 1-877-562-4592
- commenting via e-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

Name (optional): Mary Conway

Organization:

Home/Organization Address (circle one):

City: Portland State: OR Zip Code: 97220

Telephone (optional):

E-mail (optional):

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E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov

7/12/00

Response to Commentor No. 1897

1897-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1897-2: FFTF is approximately 4.5 miles from the Columbia River. There are no discharges to the river from FFTF and no radioactive or hazardous discharges to groundwater. Section 3.4.4 of Volume 1 of the NI PEIS describes the current condition of water resources potentially affected by the Hanford Site, with specific discussions of surface water and groundwater resources in the Hanford 400 Area, where FFTF is located, provided in Sections 3.4.4.1.2 and 3.4.4.2.2, respectively. This information indicates that the only impact that 400 Area operations have had on water resources to date is contamination of the unconfined aquifer system with nitrate from sanitary sewage disposal. The source of this contamination has since been removed resulting in nitrate levels diminishing over time. The effects of maintaining FFTF in its current standby mode for 35 years are described in Section 4.2.1.2.4 of Volume 1 and this analysis indicates that the impact on water resources would be negligible. As indicated in analyses presented in Chapter 4 of Volume 1 (e.g., Sections 4.3.1.1.4, 4.3.3.1.4, 4.4.3.1.4, 4.5.3.2.4, and 4.6.3.2.4), there would be no discernible impacts to groundwater or surface water quality at Hanford from operation of Hanford facilities that would support the nuclear infrastructure missions described in Section 1.2 of Volume 1.

FFTF standby operations have no impact on fish or other aquatic life. There has never been an accidental release or discharge from FFTF that has killed fish in the Columbia River. As described in Section 3.4.4.1.2 of the NI PEIS, the only liquid effluent discharged from FFTF during current standby operations consists of process wastewater from the facility's cooling towers. This wastewater is discharged to the 400 Area Pond that allows the effluent to percolate to the subsurface. The pond is normally dry. These discharges are regulated under State Waste Discharge Permit No. ST-4501. The effluent is continuously monitored before discharge with periodic sampling and analysis to determine compliance with effluent limitations. Aside from cooling water treatment chemicals added to control corrosion and algae growth, the only chemical and radiological constituents in the discharge are those that occur in the groundwater used for cooling tower makeup. As discussed in the previously cited sections of Chapter 4, restart of FFTF would increase the volume of process wastewater discharged to the pond system but would not measurably affect the quality of the effluent.

Commentor No. 1897: Mary Conway (Cont'd)

Response to Commentor No. 1897

1897-3: The commentor's position regarding the restart of FFTF is noted. Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that would be expected to result from implementation of Alternative 1, which includes restart of FFTF, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with restarting FFTF would be small.