

*Commentor No. 1005: Dave Lemak*

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From: Lemakpd@aol.com%internet  
[SMTP:LEMAKPD@AOL.COM]  
Sent: Wednesday, September 06, 2000 8:34:25 PM  
To: INFRASTRUCTURE\_PEIS, NUCLEAR  
Subject: FFTF at Hanford  
Auto forwarded by a Rule

Dear HQ DOE

My family and I strongly support Alternative #1, the restart of the FFTF for the production of medical and commercial isotopes, the production of Pu\_238 and for nuclear research. I am a cancer patient survivor. If the option of medical isotopes had been available, I could have avoided some extremely painful radiation treatments. Moreover, in 1989 my wife died of large cell lymphoma and left me a widower with two children aged 2 and 5 (she was 36 when she died). The research and isotopes available today could have saved her life. Let's not let even more people die because some radical environmentalists prefer ideology over science. Restarting FFTF means saving lives. Let's get on with it!

Sincerely,

Dave Lemak, cancer survivor

**1005-1**

*Response to Commentor No. 1005*

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**1005-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF.

**Commentor No. 1006: Ernest Empey**

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From: Ernest Empey[SMTP:EMPEY1@TELEVAR.COM]  
 Sent: Wednesday, September 06, 2000 11:31:41 PM  
 To: INFRASTRUCTURE\_PEIS, NUCLEAR  
 Subject: FFTF  
 Auto forwarded by a Rule

I believe that FFTF should be restarted. It is the newest and best kept reactor in the DOE complex. It Would be unwise to build accelerators because it is not proven on that large of scale and would not be cost effective.

Ernest Empey  
 Ernest@Empey.com

|| **1006-1**|| **1006-2****Response to Commentor No. 1006**

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**1006-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF, and opposition to Alternative 3, Construct New Accelerator(s).

**1006-2:** See response to comment 1006-1.

***Commentor No. 1007: Steve Chastain***

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From: Steve Chastain[SMTP:SMCHASTAIN@USA.NET]  
Sent: Wednesday, September 06, 2000 11:33:29 PM  
To: INFRASTRUCTURE\_PEIS, NUCLEAR  
Cc: smchastain@usa.net%internet  
Subject: Proposed Restart of the FFTF at Hanford  
Auto forwarded by a Rule

Dear Sir,

I am sending this message to register my position regarding restart of the Fast Flux Test Facility Reactor near Richland, Washington on the Hanford Reservation. I believe it should be restarted to provide medical isotopes badly needed for treatment of cancer victims. Perhaps, there are additional missions that the FFTF could be used for as well. For example, production of Uranium 238 for use by NASA.

Having reviewed other options for production of medical isotopes, the FFTF is clearly the best alternative for production of medical isotopes for the next few decades. Thus it should be restarted.

Steve Chastain

**1007-1**

***Response to Commentor No. 1007***

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**1007-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF. The commentor should note that plutonium-238, not uranium-238, fuels radioisotope power systems.

### *Commentor No. 1008: Frank Allen*

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From: Frank Allen[SMTP:FRANKA@CMC.NET]  
 Sent: Thursday, September 07, 2000 12:46:09 AM  
 To: INFRASTRUCTURE\_PEIS, NUCLEAR  
 Subject: Draft PEIS Comment  
 Auto forwarded by a Rule

Nuclear Infrastructure Programmatic Environmental Impact  
 Statement Draft PEIS Comment Sept 6, 2000

The Fast Flux Test Facility, FFTF is the most flexible option.  
 It can meet all specified elements for isotope production, nuclear\_  
 based research and development program for the future.

- a. It can be a dependable source of research isotopes for medical and industrial uses.
- b. It can produce plutonium\_238 for use in advanced radioisotope power systems for future NASA space exploration missions.
- c. It can provide the Nation's nuclear research and development needs for civilian application.

The FFTF is the perfect solution because it was designed specifically as a testing facility and is well suited as a training facility for workforces in the future.

Without the FFTF the US is dependent on others such as Russia and Germany to meet our planned research and testing programs. In case of hostilities, these sources may not be available. The US should not have to rely on others for these critical needs.

The budget for restart of the FFTF should be totally separate from and must not affect the ongoing Hanford cleanup program. The budget must also include funds for eventual shutdown and clean up of the FFTF.at the end of its useful life.

**1008-1**

**1008-2**

### *Response to Commentor No. 1008*

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- 1008-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF.
- 1008-2:** 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. 1008: Frank Allen (Cont'd)*

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Anti\_nuclear activists who want to dismantle the FFTF should realize that more nuclear research will allow design of safer and more efficient nuclear power. In the long run safe nuclear power will reduce use of fossil fuels which will in turn reduce greenhouse gases and save lives in the production of fossil fuels. Far more lives have been lost in coal production for power plants than lives lost supporting nuclear power.

Frank Allen, Chemical Engineer  
18160 Cottonwood Rd. PMB 229  
Sunriver, OR 97707\_9317  
franka@cmc.net

**1008-3**

*Response to Commentor No. 1008*

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**1008-3:** DOE notes the commentor's support for the use of FFTF to conduct nuclear research and development.

**Commentor No. 1009: James Fu**


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From: CFU@wnp2.com%internet[SMTP:CFU@WNP2.COM]  
 Sent: Thursday, September 07, 2000 2:25:42 PM  
 To: INFRASTRUCTURE\_PEIS, NUCLEAR  
 Subject: Support Restart of FFTF  
 Auto forwarded by a Rule

Dear Secretary,

As a nuclear professional, I strongly support the restart of FFTF. FFTF can produce and supply a large quantity of isotopes for treatment of cancer, heart disease and arthritis. It also will serve our nation's need for Pu\_238 for space batteries, for "hardening" computer chips, and research for new non\_proliferative fuels and transmuting our nation's plutonium wastes.

**1009-1**

Unfortunately, the decision to restart FFTF is mired in politics, with irrational and misguided allegations from the anti\_nuclear community. I urge you to make this important decision to restart FFTF.

**1009-2****1009-1**

James Fu

**Response to Commentor No. 1009**


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**1009-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF.

**1009-2:** Selection of facilities and site locations for accomplishing expanded civilian nuclear energy research and development and isotope production missions is not a political decision. DOE's 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.

***Commentor No. 1010: Del Senner***

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From: DRSENNER@wnp2.com%internet  
[SMTP:DRSENNER@WNP2.COM]  
Sent: Thursday, September 07, 2000 2:24:49 PM  
To: INFRASTRUCTURE\_PEIS, NUCLEAR  
Subject: RESTART FFTF  
Auto forwarded by a Rule

Please restart FFTF. This facility is a valuable asset to our nation and should be used to generate medical isotopes and batteries for space exploration. I have worked at a Government production reactor (N Reactor) and at the FFTF reactor and they are not in the same league. FFTF was built and maintained to modern ASME Section III, Division II standards which is very similar to the requirements that commercial nuclear facilities were fabricated and operated under. I am quite confident that FFTF could easily satisfy NRC requirements and scrutiny that commercial operating reactors are subjected to.

Del Senner  
Quality Auditor

**1010-1**

**1010-2**

***Response to Commentor No. 1010***

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- 1010-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF.  
**1010-2:** DOE notes the commentor's support for the safety of the FFTF.

**Commentor No. 1011: Scott B. Johnston**

From: Scott\_B\_Johnston@rl.gov%internet  
 [SMTP:SCOTT\_B\_JOHNSTON@RL.GOV]  
 Sent: Thursday, September 07, 2000 2:25:54 PM  
 To: INFRASTRUCTURE\_PEIS, NUCLEAR  
 Subject: In Favor for the Start Up of FFTF  
 Auto forwarded by a Rule

Ms. Colette E. Brown, U.S. Department of Energy,

It is my opinion that FFTF is a safe, state of the art facility. It would be such a waste to shut down this reactor. This facility will help keep the United States the leader of medical isotope technology and at the fraction of the cost. This facility will also be producing electrical power as a byproduct, something that is growing short in the Northwest. With all the advances in technology today, no one can say what other discoveries and developments could be achieved through the use of this facility. But WE must have this facility available for all this to happen. It is a shame that so many people are uninformed, or just plain ignorant of the many uses a facility like this could provide to the United States to the World.

Thank You,

Scott B. Johnston  
 Kennewick, Washington  
 (509)376\_5462

1011-1

1011-2

1011-1

**Response to Commentor No. 1011**

**1011-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF.

**1011-2:** FFTF would not be used for the generation of electrical power under the proposed action. The purpose of the NI PEIS is to evaluate the environmental impacts of a range of reasonable alternatives to maintaining and enhancing 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.

***Commentor No. 1012: Sandra L. Nuxall***

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From: SLNUXALL@wnp2.com%internet  
[SMTP:SLNUXALL@WNP2.COM]  
Sent: Thursday, September 07, 2000 3:50:31 PM  
To: INFRASTRUCTURE\_PEIS, NUCLEAR  
Subject: Restart the Fast Flux Test Facility (FFTF)  
Auto forwarded by a Rule

ACTION \_ Please restart FFTF for medical isotopes.

FFTF can produce and supply a large quantity of isotopes for treatment of cancer, heart disease, and arthritis. It also will serve our nation's need for Pu\_238 for space batteries, for "hardening" computer chips, research for new non-proliferative fuels, and transmuting our nation's plutonium wastes.

Sandra L. Nuxall  
Voter in Benton County  
Resident of Richland, WA

**1012-1**

***Response to Commentor No. 1012***

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**1012-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF.

**Commentor No. 1013: David L. Beeches**

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From: DLBEECHER@wnp2.com%internet  
[SMTP:DLBEECHER@WNP2.COM]  
Sent: Thursday, September 07, 2000 4:02:45 PM  
To: INFRASTRUCTURE\_PEIS, NUCLEAR  
Subject: FFTF Restart  
Auto forwarded by a Rule

To Whom It May Concern,

I am fully in favor of restarting the FFTF for the very important mission of producing medical and other radioisotopes used in industry. Humanity is in need of these products and it makes sound fiscal sense.

Regards,

David L. Beeches  
Senior Quality Services Auditor  
Energy Northwest  
(509) 377\_4671

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**1013-1****Response to Commentor No. 1013**

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**1013-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF.

***Commentor No. 1014: kmengbarth@wnp2.com***

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From: KMENGBARTH@wnp2.com%internet  
[SMTP:KMENGBARTH@WNP2.COM]  
Sent: Thursday, September 07, 2000 4:53:44 PM  
To: INFRASTRUCTURE\_PEIS, NUCLEAR  
Subject: FFTF  
Auto forwarded by a Rule

Please start FFTF for use with medical isotopes.

|| 1014-1

***Response to Commentor No. 1014***

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1014-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

**Commentor No. 1015: John Fleming**

From: John (038) Marti Fleming  
 [SMTP:FLEMING12@DELLNET.COM]  
 Sent: Friday, September 08, 2000 1:39:47 AM  
 To: INFRASTRUCTURE\_PEIS, NUCLEAR  
 Cc: cmi@gwt.com%internet  
 Subject: Fast Flux Test Facility  
 Auto forwarded by a Rule

Secretary Bill Richardson/Ms. Colette E. Brown,

I am a concerned citizen of Eastern Washington State. I truly believe the Fast Flux Test Facility (FFTF) located out side of Richland, WA on the Hanford\_site, should be restarted for production of medical isotopes. As you are aware it can uniquely provide a wide variety of high grade isotopes, some of which cannot currently be produced in the U.S. At a minimum many our fellow citizens are ill with cancer and doctors need the products to help in curing or developing a cure for them.

So, lets use this operational facility to help the citizens of our country and those of the world. Please do not throw it away as the U.S. DOE has done with so many others projects (i.e., the Supercollider) at the direction of our political establishment just for the sake of political capital or in some cases lack of interest.

By golly, it may even pay for itself \_\_\_ if money for the sale if isotopes were applied to FFTF operations, payroll, and maintenance and kept out of the general fund (the politicians hands) ..... imagine a government project actually allowed to operate as a real business.

Regards,

John Fleming  
 4201 W. Rainy Ln  
 Benton City, WA 99320  
 (509) 588\_6801

**Response to Commentor No. 1015****1015-1**

**1015-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF.

**1015-2**

**1015-2:** DOE notes the commentor's views regarding revenues from isotope production in FFTF. The estimated costs of the range of reasonable alternatives are presented in the Cost Report, summarized in Appendix P of the Final NI PEIS. However, the Cost Report is not a cost-benefit analysis. While it is reasonable to believe that the benefits of medical isotopes are substantial, the purpose of this NI PEIS is to describe the nuclear infrastructure missions (Section 1.2 of Volume 1), a range of reasonable alternatives for satisfying the mission requirements (Section 2.5 of Volume 1), and the environmental impacts that would result from implementation of the alternatives. According to 40 CFR Section 1502.23, if a cost-benefit analysis exists, it must be reported and summarized in the NI PEIS.

***Commentor No. 1016: yeefoo@aol.com***

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From: Yeefoo@aol.com%internet  
[SMTP:YEEFOO@AOL.COM]  
Sent: Friday, September 08, 2000 1:56:40 AM  
To: INFRASTRUCTURE\_PEIS, NUCLEAR  
Subject: Please restart FFTF for medical isotopes  
Auto forwarded by a Rule

Please restart FFTF for medical isotopes

|| 1016-1

***Response to Commentor No. 1016***

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**1016-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF.

**Commentor No. 1017: *lyang59854@aol.com***

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From: LYang59854@aol.com%internet  
[SMTP:LYANG59854@AOL.COM]  
Sent: Friday, September 08, 2000 1:57:55 AM  
To: INFRASTRUCTURE\_PEIS, NUCLEAR  
Subject: Please restart FFTF for medical isotopes  
Auto forwarded by a Rule

Please restart FFTF for medical isotopes

|| 1017-1

**Response to Commentor No. 1017**

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1017-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

***Commentor No. 1018: butterfly200350@aol.com***

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From: Butterfly200350@aol.com%internet  
[SMTP:BUTTERFLY200350@AOL.COM]  
Sent: Friday, September 08, 2000 1:59:12 AM  
To: INFRASTRUCTURE\_PEIS, NUCLEAR  
Subject: Please restart FFTF  
Auto forwarded by a Rule

Please restart FFTF

|| 1018-1

***Response to Commentor No. 1018***

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**1018-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF.

***Commentor No. 1019: Yosen Liu***

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From: Liu, Yosen[SMTP:YOSEN.LIU@PNL.GOV]  
Sent: Friday, September 08, 2000 1:03:38 PM  
To: INFRASTRUCTURE\_PEIS, NUCLEAR  
Subject: FFTF Restart  
Auto forwarded by a Rule

Please restart FFTF for producing medical isotopes.  
Thanks!

Yosen Liu

|| 1019-1

***Response to Commentor No. 1019***

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**1019-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF.

***Commentor No. 1020: clrobinson@wnp2.com***

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From: CLROBINSON@wnp2.com%internet  
[SMTP:CLROBINSON@WNP2.COM]  
Sent: Friday, September 08, 2000 1:00:33 PM  
To: INFRASTRUCTURE\_PEIS, NUCLEAR  
Subject: RESTART FFTF  
Auto forwarded by a Rule

Please restart FFTF for medical isotopes.  
THANKS  
CAL  
509\_377\_2379

|| 1020-1

***Response to Commentor No. 1020***

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**1020-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF.

**Commentor No. 1021: Keith Reher**

From: WebsterReher[SMTP:WEBSTERREHER@HOME.COM]  
 Sent: Friday, September 08, 2000 2:57:12 PM  
 To: INFRASTRUCTURE\_PEIS, NUCLEAR  
 Subject: Fast Flux Test Facility Restart Proposal  
 Auto forwarded by a Rule

Dear Sir:

Please consider this communication as part of the public comment on the proposal to restart the FFTF.

I strongly oppose any attempt to restart the FFTF at Hanford.

1021-1

The contamination problems at the Hanford site are HUGE enough without creating further waste by operating the FFTF.

1021-2

I urge the DOE to direct the maximum effort to control the existing plutonium contamination at Hanford, rather than adding to the problem with further reactor operations.

1021-3

Sincerely

Keith Reher  
 Sammamish, WA

**Response to Commentor No. 1021**

- 1021-1:** DOE notes the commentor's opposition to Alternative 1, Restart FFTF.
- 1021-2:** FFTF restart would not impact the schedule or available funding for existing cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram funds designated for Hanford cleanup, regardless of the alternative(s) selected. 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 waste. 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 very small compared to waste generated by other Hanford activities. It is DOE's policy that all waste 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 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.
- 1021-3:** 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 Hanford cleanup activities are a 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.

**Commentor No. 1022: Regina Hagen**


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From: Regina Hagen  
 [SMTP:REGINA.HAGEN@JUGENDSTIL.DA.SHUTTLE.DE]  
 Sent: Friday, September 08, 2000 3:43:10 PM  
 To: INFRASTRUCTURE\_PEIS, NUCLEAR  
 Subject: Comment to Draft NI PEIS  
 Auto forwarded by a Rule

Dear Mrs. Brown,

I want to limit my comment to the Draft Nuclear Infrastructure Programmatic Environmental Impact Statement (Draft PEIS) to the planned production of plutonium-238. The Draft PEIS states, that this isotope is required "for use in advanced radioisotope power systems for future NASA space exploration missions". The Draft PEIS lists three of these missions: Pluto-Kuiper Express (7.4 kg), Europa Orbiter (3 kg) and Solar Probe (3 kg). In addition, approx. 0.3 kg Pu-238 are said to be needed for each of the NASA Mars Surveyor missions in RHUs.

1. I know that DoE is not responsible for the planning of NASA but rather supplies the isotope material requested by NASA for their missions. When investigating into the above listed missions, I found that there is contradictory information on the need for isotope power sources for two of these missions. For Europa Orbiter as well as Solar Probe, NASA departments have stated that those missions could be done by using solar panels instead of plutonium generators. (Pluto-Kuiper Express, however, can only be done if RTG or the new ARPS generators are used.)

2. The German company ASE in Heilbronn developed LILT solar cells for Rosetta, ESA's mission to comet Wirtanen. Their development manager, Dr. Strobl, has repeatedly confirmed that they could improve those cells to be used up to the distance of Saturn (cold environment with little light). One NASA department reported that solar cells are available to deal with the particular environment close to the sun (lots of light and very hot). Therefore, for two of the missions, not radioisotope power sources are required.

**1022-1**

**Response to Commentor No. 1022**

**1022-1:** 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. Potential health and safety impacts associated with future launches of spacecraft utilizing plutonium-238 are not within the scope of the NI PEIS analysis, but would be addressed in the specific NEPA documentation prepared by NASA in support of such missions.

### *Commentor No. 1022: Regina Hagen (Cont'd)*

3. Missions that can not be done solar should be left to the next generations. The dangers attached to the production cycle and the launch are not acceptable. The Draft PEIS says, that RTGs and RHUs have been used for more than 30 years. "These radioisotope power systems have repeatedly demonstrated their performance, safety, and reliability in various NASA space missions." You do not, however, mention, that out of 71 US and Russian space missions that used RTGs or nuclear reactors, 10 had serious or even fatal problems. If you need more details, see my report "Nuclear Power Space Missions \_ Past and Future" which may be found at <http://www.space4peace.org>. The failure rate is 1:7 \_ not exactly safe and reliable. The problem is not the safety and reliability of the RTGs (and RHUs), but the failure rate of space launches and missions in general.

4. The production of plutonium\_238 will always include the risk of hazards. Not long ago, eight workers were exposed to above\_limit radiation doses in the course of RHU production. Plutonium production means that the production cycle would be taken up again, up to the point were huge amounts of radioactive wastes must be dealt with. Currently, there does not exist a safe method to deal with any kind of nuclear waste. And contamination of workers and the environment can never be fully avoided in the production cycle. History showed that the dangers related with the process have always been underestimated and downplayed.

5. The Draft PEIS states, that considerably less plutonium\_238 has been purchased from Russia than would have been possible according to the appropriate contract (9 kg out of a maximum of 40 kg). "Larger individual quantities have not been purchased by DOE due to budget constraints." This is ridiculous. Considering the costs to take up again plutonium\_production plus all costs that will result from it (including waste management), it is ridiculous to say that existing plutonium\_238 was not purchased "due to budget constraints".

**1022-1  
(Cont'd)**

**1022-2**

**1022-3**

**1022-2**

**1022-4**

### *Response to Commentor No. 1022*

- 1022-2:** Plutonium-238 processing facilities can be safely operated to support the nuclear infrastructure missions described in Section 1.2 of Volume 1. Sections 4.2-4.6 of Volume 1 provide the results of the evaluation of potential health impacts that would be expected to result from plutonium-238 processing, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that the radiological and nonradiological risks associated with plutonium-238 processing would be small.
- 1022-3:** DOE would not conduct any reprocessing to produce weapon-grade plutonium under any of the alternatives considered under this PEIS. 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. Sections 4.3.1.1.13; 4.3.2.1.13; 4.3.3.1.13; and 4.4.3.1.13 were revised to clarify the waste management approach for waste resulting from processing of target materials for plutonium-238 production.
- 1022-4:** 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. 1022: Regina Hagen (Cont'd)***

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The nuclear legacy we leave to the next generations, for many thousands of years, is huge already. It is fully irresponsible to add to this burden for the sake of research space missions to the very deep space. I fully support space exploration \_ as long as it is done sustainably. Nuclear energy is dangerous and must therefore not be used for space missions. Not for research missions, not for commercial missions, and not for military ones.

Sincerely  
Regina Hagen

Regina Hagen  
Teichhausstrasse 46  
64287 Darmstadt  
Germany

**1022-5**

***Response to Commentor No. 1022***

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**1022-5:** DOE notes the commentor's opposition to NASA's use of nuclear materials for space missions and concern over the use of nuclear power in military and research missions. The DOE missions to be addressed in this NI PEIS, 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. 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. 1023: Judson L. Kenoyer***

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From: Kenoyer, Judson L  
[SMTP:JUDSON.L.KENOYER@PNL.GOV]  
Sent: Friday, September 08, 2000 3:46:30 PM  
To: INFRASTRUCTURE\_PEIS, NUCLEAR  
Subject: FFTF  
Auto forwarded by a Rule

FFTF should be identified as the appropriate alternative choice.

|| 1023-1

Judson L. Kenoyer  
Manager, Dosimetry Research and Technology  
Battelle, PO Box 999, K3\_55  
Richland, WA 99352  
(509) 375\_4574  
(509) 375\_6936 (FAX)  
judson.l.kenoyer@pnl.gov <mailto:judson.l.kenoyer@pnl.gov>  
(email)

***Response to Commentor No. 1023***

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**1023-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF.

**Commentor No. 1024: James and Janet Hsieh**

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Date: September 8, 2000

To: Ms. Colette Brown

From: James and Janet Hsieh  
955 S. Summitridge  
Diamond Bar, CA 91765

*James Hsieh*  
*Janet Hsieh*

Subject: Comments on the FFTF

We support the restart of FFTF to produce medical isotopes for cancer treatment, especially for the young children. Are you aware that every hour one child in the United States gets cancer? It is so sad to see bald children suffering from the side effects of chemotherapy on their young and fragile bodies.

Restarting the FFTF will give them and their parents hope that we are getting these children the best possible cure.

**1024-1**

**Response to Commentor No. 1024**

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**1024-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF

**Commentor No. 1025: Carol Thayer Cox**

09/10/2000 20:53 5403715537

PAGE 01

**Carol Thayer Cox**  
**130 Spring Wood Drive**  
**Fredericksburg, VA 22401-7026**

Colette E. Brown  
 U.S. Department of Energy, NE-50  
 19901 Germantown Road  
 Germantown, MD 20874-1290

September 10, 2000

Dear Dr. Brown

I am writing in support of stopping the nuclearization and weaponization of space. It is imperative that the Department of Energy cease its development of Plutonium-238 for future space missions. Why can't NASA work towards the development of environmentally benign sources for space missions? The European Space Agency (ESA) has now created high-efficiency solar cells for deep space missions, which is immanently safer than using Plutonium-238.

I am concerned that the plutonium production/fabrication process for space nuclear power missions has recently led to several worker contamination accidents. An expansion of production will only worsen this problem. Furthermore, extending the number of launches of nuclear powered space devices from Cape Canaveral on rockets with 10% failure rates will only increase the possibility of a deadly mishap.

The massive cost of expanded production of plu-238 can not be justified at a time when the Department of Energy admits it needs over \$300 billion to clean-up existing problems at its facilities.

The military is promoting the use of nuclear power in space for space-based weapons technology. It is time to take stock of the graveness of this situation. **Using nuclear power for space war will have severe environmental implications for life on earth.** Please do what you can to change this calamitous course towards destruction.

Thank you

Sincerely,

  
 Carol Thayer Cox

1025-1

1025-2

1025-1

1025-3

1025-4

**Response to Commentor No. 1025**

- 1025-1:** DOE notes the commentor's concern for NASA's use of nuclear materials for space missions, interest in the development of alternative energy sources for space missions, and concern over the use of nuclear power in space-based weapons. 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.
- 1025-2:** Plutonium-238 processing facilities can be safely operated to support the nuclear infrastructure missions described in Section 1.2 of Volume 1. Sections 4.2-4.6 of Volume 1 provide the results of the evaluation of potential health impacts that would be expected to result from plutonium-238 processing, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that the radiological and nonradiological risks associated with plutonium-238 processing would be small.
- 1025-3:** DOE notes the commentor's opinion and concern about funding available for cleanup at DOE facilities.
- 1025-4:** DOE notes the commentor's concern for the use of nuclear power in space-based weapons. 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. 1026: Madeline E. Marcus**

Sep 08 00 10:04a ABC Pediatrics 509-586-5744 p.1

Date: September 8, 2000  
To: Ms. Colette Brown  
U.S. Department of Energy  
Fax Number 1-877-562-4592  
From: Madeline Marcus, M.D.  
Kennewick, Washington  
Subject: Comments on FFTF

(I support the restart of FFTF to produce the essential medical isotopes for cancer treatment. As a Pediatric Oncologist, I.....)

feel that this modality shows great promise in targetting specific tumors and leukemias while minimizing background toxicities.

Historical concerns regarding risks from background radiation can now be ameliorated by the use of molecular biology technologies to more specifically target cancer cells.

Only through effective research of new modalities of treatment can we hope to succeed in the therapy of diseases that heretofore have been beyond our clinical reach.

Sign



**Response to Commentor No. 1026**

1026-1

1026-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

## Commentor No. 1027: Erik Ringelberg Keep Yellowstone Nuclear Free

KEEP YELLOWSTONE NUCLEAR FREE  
P. O. BOX 4838 JACKSON, WY 83001 307-732-2040 www.yellowstonenuclearfree.com

DRAFT PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT  
(NI PEIS 03410D)

September 8, 2000

Colette E. Brown,  
U.S. Department of Energy, NE-50,  
19901 Germantown Road,  
Germantown, MD 20874-1290

Dear Ms. Brown,

Keep Yellowstone Nuclear Free, a Jackson, Wyoming-based 501c3, has several comments for the record regarding the Nuclear Infrastructure Draft PEIS (NI PEIS 03410D). It is obvious from this Programmatic Environmental Impact Statement that the Department of Energy (DOE) nuclear program is searching desperately for a post-cold war mission. The premises for programmatic expansion seem based on a single "expert" panel's recommendation and a stated lack of institutional ability (or interest) to use existing DOE facilities and programs, operating at only 50% capacity (S-4). No compelling rationale is put forth for support of this expansion, or for how this expansion will avoid the missteps of the previous DOE nuclear programs.

The expressed primary need for this program and potential related-facilities at the Idaho National Engineering and Environmental Laboratory (INEEL) is the stated "...lack of alternative power sources for space missions." This basic premise, from which an entire expansion program hinges upon, is not supported by the facts:

NASA already has a well-developed electric battery fuel cell program. The European Space Agency has high-efficiency solar cells developed for deep space missions. Numerous private vendors, with existing agreements with NASA, also have suitable high-efficiency solar cells used for long-range probes.

Even if this premise was correct, the existing plutonium production/fabrication process has an egregious history, and even recently led to worker contamination. Further expansion of production will only worsen this problem and threaten the general public's safety from radioactive contamination.

Our own experience with the DOE's "management" of similar projects at INEEL is that this type of program leads to massive cost overruns, worker deaths, and a multi-generational legacy of radioactive contamination. It is hard to understand why the DOE is planning this massive expansion of plutonium-238 production when DOE admits it needs over \$300 billion to "clean-up" existing problems at these same facilities.

1027-1

1027-2

1027-3

1027-4

## Response to Commentor No. 1027

**1027-1:** DOE notes the commentor's views. However, the purpose of the NI PEIS is to evaluate the environmental impacts of a range of reasonable alternatives to maintaining and enhancing 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.

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 rate of growth of medical isotope use is consistent with the Expert Panel findings. Section 1.2.1 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

## Commentor No. 1027: Erik Ringelberg (Cont'd) Keep Yellowstone Nuclear Free

KEEP YELLOWSTONE NUCLEAR FREE  
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The PEIS disingenuously ignores these *current* problems and the immense social resistance to the expansion of nuclear power and the consequent radioactive contamination. For example, the PEIS specifically mentions the supportive public commentary in Idaho Falls, ID. Notwithstanding that the EIS process is not a public vote by law, the use of "factory towns" whose primary income comes from the DOE as the source of public opinion is flawed at best and an abuse of the National Environmental Policy Act (NEPA). KYNF and the other plaintiffs of the KYNF et al. vs. Richardson settlement agreement have repeatedly requested that the DOE include other communities in its scoping process that face the direct environmental consequences of the DOE's radioactive contamination.

1027-5

In spite of the obvious bias of the respondents, the DOE identified from public commentary the same three issues KYNF has with this PEIS: increased radioactive waste production and the lack of effective cleanup, lack of justification for proposal, and cost issues. Nowhere in the PEIS are these issues addressed.

1027-6

1027-7 1027-5

A second set of NEPA issues also raised by the plaintiffs, and ignored again in the PEIS, are the use of very broad categories of alternatives and poorly described options within each category, and the selective recombination of alternatives/options without substantiation of the difference in impacts between combinations. It is virtually impossible to provide alternative technical analysis and substantive comment on each combination. This is particularly problematic since no "preferred alternative" has been identified until the "final". The net result of the DOE method of outlining alternatives is that reviewers are unable to make directed comments to the substance of the technical issues and have their comments rejected ("out of scope"), or oversimplified and responded to in vague generalities.

1027-5

For example, comments on the premise "...lack of alternative power sources for space missions.", although one of the main reasons put forth for the PEIS, are considered "out of scope" N4.1-2;N-8-9). The environmental impacts of not producing p-239 are in fact part (albeit minor, as it is clearly not a preferred alternative [see chapter 4.1] of the PEIS. This is a clear example of the abuse of the intent (if not the letter of the law) NEPA inherent in the document and the review of public comments.

For a different example of the defective nature of this document, Alternatives 2, 3, and 4 all involve the INEEL facility. Each alternative, and in fact, each option suite, has substantially different environmental and social impacts *specific to INEEL*. Unfortunately, the DOE uses a "generic site" approach, with the details to be parsed out in follow-up documents.

In the rare case where specific of potential impacts are discussed (in the environmental justice section), the analysis presents two conditions, well-distributed poverty and patchy minority population distribution for INEEL. Yet, the analysis states that essentially there are no potential additional environmental justice impacts. This is belied by the statement that the "estimates...could be noticeably influenced by assumptions..."(K-7). This is our point; the broad estimates and unsupported assumptions in boilerplate text render this document's "analysis" moot. The analyses all assume homogeneous dispersion of radioactive contamination, an idea refuted by *all* actual releases documented by the DOE at the site (pg. 24 INEL Historical Dose Evaluation [Vol.1], 1991).

1027-8

Even more disturbing is the failure to mention the risks and potential impacts of the *combination* of hazardous and radioactive emissions from this project, or the cumulative risk in combination with INELLS other toxic emissions. Surely, since both radioactive and hazardous wastes are generated concurrently, there are at least additive and more likely multiplicative health effects from both operations and systems failures.

1027-9

## Response to Commentor No. 1027

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.

DOE has taken the Expert Panel and NERAC report recommendations under consideration in developing the range of alternatives evaluated in the NI PEIS. These reports were made available to the public at the NI PEIS public information centers and on the Internet at [www.nuclear.gov](http://www.nuclear.gov).

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. 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. Under the No Action Alternative, DOE would continue to purchase plutonium-238 to meet the space mission needs for the 35-year evaluation period considered in the NI PEIS. However, DOE recognizes that any purchase beyond what is currently available to the United States through the existing contract would likely require negotiation of a new contract and may require additional NEPA review.

The May 22, 2000, correspondence from NASA to DOE identifies 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

## Commentor No. 1027: Erik Ringelberg (Cont'd)

### Keep Yellowstone Nuclear Free

#### KEEP YELLOWSTONE NUCLEAR FREE

P. O. BOX 4838 JACKSON, WY 83001 307-732-2040 www.yellowstonenuclearfree.com

The sole technical detail that we can comment on is the estimated generation of **2,593,067 pounds of nuclear and hazardous waste** if INEEL is selected. This waste is completely unacceptable to Keep Yellowstone Nuclear Free and the people of this region who do not have an economic stake in this project.

We do not believe that the Draft PEIS contains enough detail and scope of information for us to make other substantive comments on the specifics on this program. It is our hope that a much more comprehensive examination of the known and potential environmental impacts of this program is provided in the Final PEIS.

Sincerely,



Erik Ringelberg  
Executive Director

1027-10

1027-5

## Response to Commentor No. 1027

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's production and sale of radioisotopes fall into two categories "commercial" and "research" and both types of isotope production are considered under the proposed actions. Commercial radioisotopes are those that are produced in large, bulk quantities and sold to pharmaceutical companies or distributors, or to equipment or sealed source manufacturers. Examples of commercial radioisotopes produced by DOE include strontium-82 and germanium-68 for medical applications, and iridium-192 and californium-252 for industrial applications. DOE only produces commercial isotopes when there is no U.S. private sector capability or when foreign sources do not have the capacity to meet U.S. needs reliably. In contrast, research radioisotopes are typically produced and sold in small quantities in response to specialty orders from researchers preparing experiments in the field of medicine, with small quantities of these radioisotopes also purchased by industrial researchers. Because small-quantity production of research isotopes is not financially attractive to private-sector producers and is generally not undertaken, DOE attempts to provide all research radioisotopes that are requested, subject to production capability, inventory, and financial constraints. As successful application of a specific research isotope is established, the production and sales of that radioisotope may shift from research to commercial status. In recent years, over 95 percent of DOE's sales of radioisotopes by dollar volume were commercial and 5 percent have been for research. Additional discussion of how DOE's isotope program fits into the overall U.S. and foreign isotope production capabilities was incorporated into Section 1.2.1 of Volume 1.

**1027-2:** DOE notes the commentor's concern for NASA's use of nuclear materials for space missions and interest in the development of alternative energy sources for space missions, although issues such as NASA research priorities are beyond the scope of this PEIS. NASA establishes the need and requirements for space missions and undergoes a thorough

***Commentor No. 1027: Erik Ringelberg (Cont'd)***  
***Keep Yellowstone Nuclear Free***

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***Response to Commentor No. 1027***

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NEPA evaluation for each launch. Plutonium-238 sources are used only when they enable the missions or enhance mission capabilities.

**1027-3:** Plutonium-238 processing facilities can be safely operated to support the nuclear infrastructure missions described in Section 1.2 of Volume 1. Sections 4.2-4.6 of Volume 1 provide the results of the evaluation of potential health impacts that would be expected to result from plutonium 238 processing, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that the radiological and nonradiological risks associated with plutonium-238 processing would be small.

**1027-4:** DOE notes the commentor's concern over DOE's past management and safety practices and the adequacy of ongoing cleanup activities. 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 health and safety of workers and the public is a priority of the nuclear infrastructure program, regardless of which approach is chosen. Operation of the facilities would comply with applicable Federal, state, and local laws and regulations governing radiological and hazardous chemical releases.

**1027-5:** The purpose of this NI PEIS is to evaluate the environmental impacts 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 NASA space missions, and nuclear research and development. Although beyond the scope of this NI PEIS, activities to remediate existing contamination at INEEL and at the other DOE sites under consideration are ongoing and independent of the expanded programs analyzed herein. However, public input is of immense importance to DOE as part of a policy of encouraging vigorous public participation on matters of regional, national and international importance. In doing so and in compliance with NEPA and CEQ regulations, DOE provided opportunity to the public to comment on the environmental impact analysis of DOE's proposed alternatives for meeting the mission requirements, and gave equal consideration to all comments, regardless of how or where they were received. This has included holding scoping meetings in communities potentially subject to environmental, health, or economic impacts as well as in communities

***Commentor No. 1027: Erik Ringelberg (Cont'd)***  
***Keep Yellowstone Nuclear Free***

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***Response to Commentor No. 1027***

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removed from any direct or indirect effects but that nevertheless have a substantial stakeholder interest in the stated missions being considered. Based on the scoping comments received, the scope of the NI PEIS was expanded in a number of areas as outlined in Section 1.4 of the NI PEIS.

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. Pursuant to CEQ regulations (40 CFR 1505.1(e)), agencies are encouraged to make ancillary decision documents available to the public before a decision is made. 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.

The Draft and Final NI PEIS have 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 1500 through 1508 and 10 CFR 1021, respectively). DOE does not agree with the commentor's characterization that the alternatives and options presented are poorly described so as to dissuade substantive comment. The combination of alternatives and options were selected to provide a range of site locations and facilities for accomplishing the stated missions in accordance with NEPA guidelines. The presentation of environmental consequences for each alternative option enables clear differentiation between the alternatives and options on the basis of potential environmental and human health impacts. DOE's use of the generic site approach for Alternatives 3 and 4 was intended to "level the playing field" with regard to evaluating the relative merits of the accelerator and research reactor options in the absence of any existing sites' operational constraints. In doing so, this also results in bounding the assessment of environmental impacts.

- 1027-6:** The restart of FFTF or use of any of the other proposed alternative facilities would not impact the schedule or available funding for existing cleanup activities at Hanford, INEEL, or ORR. DOE notes the commentor's concern regarding waste generation. The NI PEIS

***Commentor No. 1027: Erik Ringelberg (Cont'd)***  
***Keep Yellowstone Nuclear Free***

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***Response to Commentor No. 1027***

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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.

- 1027-7:** DOE notes the commentor's views. Consistent with its mandates under the Atomic Energy Act, DOE seeks to maintain and enhance its 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 for 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. Purpose and need are discussed in Section 1.2 of the NI PEIS.
- 1027-8:** Figures K-2 and K-3 of Appendix K highlight block groups for which the percentage of minority and low-income residents, respectively, exceed the national percentages of minority and low-income persons residing in the Continental United States. Although the maps in Figures K-2 and K-3 emphasize areas with higher concentrations of minority and low-income residents, minority and low-income persons reside throughout the potentially affected area surrounding Idaho National Engineering and Environmental Laboratory. All persons potentially impacted by radiological releases under normal and accident conditions were included in the analyses.

As discussed in Section H.2.2.2 of Appendix H, the analyses did not assume homogeneous dispersion of radioactive contamination. Rather, the dispersion was estimated from averaged annual meteorological measurements at the candidate sites. The meteorological data include wind speed, direction, and stability class. As discussed in Volume 1,

**Commentor No. 1027: Erik Ringelberg (Cont'd)**  
**Keep Yellowstone Nuclear Free**

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**Response to Commentor No. 1027**

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Section 2.7.1.1 of the NI PEIS, radiological impacts at the candidate sites are driven by the geographical dispersion of the surrounding populations and fabrication/processing activities, as well as meteorological conditions.

**1027-9:** The impacts to humans from hazardous chemical and radioactive emissions result in different types of adverse health effects which cannot be combined in a meaningful way. Conservatively, all radiation is assumed to increase the risk of cancer fatalities. In contrast, hazardous chemicals can be carcinogenic and/or noncarcinogenic and exposure need not be fatal. Health effects associated with exposure to carcinogenic chemicals are measured in terms of total cancers, both fatal and nonfatal. Noncarcinogenic chemicals have the potential to produce adverse toxic effects, but not cancer. The measure of health effects for these chemicals is the hazard quotient. If exposure to several of these noncarcinogenic chemicals occurs simultaneously, the hazard quotients are summed to give a Hazard Index. If the Hazard Index exceeds unity, adverse health effects may result.

Because of the differences in the types and characterizations of these health effects, the magnitudes of each type are presented separately in the NI PEIS, and are not combined. In general, one type of health effect dominates, and no combination is even necessary.

A detailed discussion of health effects associated with exposure to radiation is given in Section H.2.1.2 of the Draft NI PEIS; a detailed discussion of health effects associated with exposure to hazardous chemicals is given in Section H.3.

**1027-10:** DOE notes the commentor's concern regarding 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.

***Commentor No. 1027: Erik Ringelberg (Cont'd)***  
***Keep Yellowstone Nuclear Free***

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***Response to Commentor No. 1027***

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If INEEL were selected for the irradiation of targets and processing and fabrication of irradiated targets (plutonium-238), the total radioactive and hazardous waste generation over the 35-year period for nuclear infrastructure operations would be about 3,340 cubic meters. As shown in Section 4.8.2.4 of the NI PEIS, this would represent a small amount of additional waste in comparison to the INEEL's current site activities.

***Commentor No. 1028: Ray V. Rose***

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NI PEIS Toll\_Free Telephone

9/8/00

Ray V. Rose  
4508 Riverhaven Blvd  
Pasco, WA 99301  
509\_547\_2006

Leaving a message on the FFTF. As a physician, I am quite certain my profession is now on the verge of an exponential increase in the use of medical isotopes, especially for cancer therapy. Accordingly, I now strongly favor the reactivation of the FFTF reactor at Hanford, Washington, to minimize our dependency on importation of these isotopes. Although this may involve a short term loss, I am certain that it will lead to a very significant long term gain. Your consideration of this need will be greatly appreciated. Sincerely.

**1028-1*****Response to Commentor No. 1028***

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**1028-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF

**Commentor No. 1029: Jean Petty**

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NI PEIS Toll\_Free Telephone

9/7/00

Jean Petty  
400 Sea Berry Drive  
#5164  
Bloomfield, CT 06002

I am very disturbed at the possibility of getting into production of Pu\_238. It is very dangerous stuff. If it is involved in space exploration, it poses many threats in terms of possible accidents with launches and so forth.

1029-1

Furthermore, we should be devoting our energy to developing the solar power. Europe does have and has been working on a satisfactory substitute, which is far safer.

1029-2

In no way should we expand and open up new plants to produce this. It is very dangerous also to the workers in those plants. I think it is absolutely essential that DOE not go ahead with oking this plan to expand plutonium production. Thank you.

1029-3

1029-4

1029-3

**Response to Commentor No. 1029**

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**1029-1:** As used by NASA, plutonium-238 is encapsulated and shielded to minimize any hazards to personnel or to the environment, even in the event of a catastrophic launch accident or inadvertent earth re-entry. In addition, NASA prepares NEPA documentation prior to each of its deep space missions. The documentation evaluates radiological and other risks that could result from the entire mission. NASA uses radioisotope power systems only when they enable the mission or enhance mission capabilities.

**1029-2:** DOE notes the commentor's concern for NASA's use of nuclear materials for space missions and interest in the development of alternative energy sources for space missions, although 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.

**1029-3:** DOE notes the commentor's opposition to expanding its existing nuclear facility infrastructure to support production of plutonium-238 for use in future NASA space exploration missions. 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.

**1029-4:** Plutonium-238 processing facilities can be safely operated to support the nuclear infrastructure missions described in Section 1.2 of Volume 1. Sections 4.2-4.6 of Volume 1 provide the results of the evaluation of potential health impacts that would be expected to result from plutonium-238 processing, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that the radiological and nonradiological risks associated with plutonium-238 processing would be small.

**Commentor No. 1030: Rochelle Becker**

09/11/2000 10:42 6192734576

BECKER

PAGE 01

Thomas J. Becker, DDS  
 Rochelle Becker  
 1037 Ritchie Rd.  
 Grover Beach, CA 93433  
 (805) 489-7420

Collete E. Brown  
 US Dept of Energy  
 NE-50  
 19901 Germantown Rd.  
 Germantown, MD 20874  
 (877) 562-4592

September 11, 2000

Dear Ms. Brown,

We are writing to request that NASA be required to develop alternative (solar) power sources for space missions. The technology is workable and has been developed in Europe.

We strongly feel the current path of increased Plutonium production is not justified by the health risks to workers or the safety risks to the public at large. Nor is the astronomical costs of plu-238 which drains the economy for decades to come.

Please push forward a space program that our country can be proud of and will not increase possibilities for massive environmental pollution of our earth.

Sincerely,



Rochelle Becker

1030-1

1030-2

1030-3

1030-1

**Response to Commentor No. 1030**

- 1030-1:** DOE notes the commentor's concern for NASA's use of nuclear materials for space missions and interest in the development of alternative energy sources for space missions, although 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.
- 1030-2:** The facilities evaluated in the NI PEIS can be safely operated to support the nuclear infrastructure missions described in Section 1.2 of Volume 1. Sections 4.2-4.6 of Volume 1 provide the results of the evaluation of potential health impacts that would be expected to result from implementation of the alternatives, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that the radiological and nonradiological risks associated with each of the alternatives would be small.
- 1030-3:** DOE notes the commentor's opinion.





Commentor No. 1033: Sharon Lee

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

103374+1207 [barcode]

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

*Please consider future generations.*

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

*the Hanford Nuclear Reservation is the most radioactively polluted site in the U.S. It is next to the Columbia River and has leaked radiation into the river, the ocean, and the water table. all efforts need to focus on clean up*

Name Sharon Lee  
Address 8840 NW Lovejoy St.  
City, state Portland, OR Zip 97229

1033-1

1033-2

1033-1

Response to Commentor No. 1033

1033-1: 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.

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.

1033-2: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.











Commentor No. 1039: Jody Heatlie

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

0874+1207 [Barcode]

*What's such a joke, Hanford is one of the most  
Public comment on Nuclear Infrastructure Draft Programmatic  
Environmental Impact Statement (NI PEIS)  
Topic: nuclear sights in the world.*

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

*We do not need medical isotopes  
from Hanford. There are plenty isotopes  
in the U.S. & around the world, so don't  
try to fool us with this. We don't want  
plutonium in our area either. We  
want AN END NOW to dangerous  
nuclear reactors at Hanford. I am  
a victim of Hanford's radiation.  
The only, rational, responsible plan is to  
clean up the debris, now.*

Name Jody Heatlie  
Address 2237 SE 70th  
City, state Portland, Oregon Zip 97215

Response to Commentor No. 1039

**1039-1:** DOE was tasked by Congress in the Atomic Energy Act of 1954, as amended, to "ensure the availability of isotopes for medical, industrial, and research applications, meeting the nuclear material needs of other federal agencies, and undertaking research and development of activities related to development of nuclear power for civilian use." The purpose of this PEIS is to determine the environmental and other impacts to accomplishing this mission from all reasonable existing and new DOE resources. The FFTF at the Hanford Site was one of several existing DOE resources that was assessed for this mission.

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.

**1039-2:** DOE notes the commentor's opposition to Alternative 1, Restart FFTF, and support for Alternative 5, Permanently Deactivate FFTF.

**1039-3:** 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.

***Commentor No. 1039: Jody Heatlie (Cont'd)***

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***Response to Commentor No. 1039***

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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. 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.

- 1039-4:** 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. 1041: Daniel E. Peterson

### Draft PEIS Comment Form

Since the death of our son Scott in 1975 we have followed events at Hanford with increased interest as public disclosure shed light on those of us who lived "down wind"

I have attended numerous hearings and I vote for alternative 5 - Deactivate FTF with no new mission. However I am convinced by 4 of Washington State testimony there is no need for isotope production as Canada provides all US needs.

Any alternative proposed must not interfere with Hanford clean-up.

The attempt for Sen Gordon and John Corley to project Hanford FTFE start up as quickly as ever research attends those of us who have lost family members to "down wind" Bill out.

1041-1

1041-2

1041-3

1041-1

#### There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- 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: NuclearInfrastructure-PEIS@hq.doe.gov

Name (optional): Daniel E. Peterson

Organization: \_\_\_\_\_

Home/Organization Address (circle one): 9727 45th Ave NE,  
Seattle

City: \_\_\_\_\_ State: WA Zip Code: 98115

Telephone (optional): 206-524-0526

E-mail (optional): \_\_\_\_\_

**COMMENTS MUST BE POSTMARKED BY September 11, 2000**

For more information contact: Collette E. Brown, NE-50  
U.S. Department of Energy • 1990 Germantown Road • Germantown, MD 20874  
Toll-free telephone: 1-877-562-4593 • Toll-free fax: 1-877-562-4592  
E-mail: NuclearInfrastructure-PEIS@hq.doe.gov



7/12/00

## Response to Commentor No. 1041

- 1041-1:** 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.
- 1041-2:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FTFE.
- 1041-3:** DOE notes the commentor's view. 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 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



***Commentor No. 1041: Daniel E. Peterson (Cont'd)***

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***Response to Commentor No. 1041***

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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 isotopes, DOE remains the key provider for a large number of isotopes that are used in relatively small quantities by individual researchers at universities and hospitals. 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.

**Commentor No. 1042: Roger A. Rohrbacher**

1612 So. Dawes St.  
Kennewick, WA 98538  
September 1, 2000

Ms. Colette Brown  
DOE Office of Space & Defense Power Systems, NE-50  
19901 Germantown Road  
Germantown, MD 20874-1790

Dear Ms. Brown:

My reasons to restart and operate FFTF are as follows:

It is a low cost option for the U.S. to produce needed medical isotopes to diagnose and fight cancer and other diseases. It can produce a steady stream of different medical isotopes simultaneously. Lives can be saved by saving FFTF.

The FFTF has unique capabilities for international research. (I understand Japan is still interested.)  
A stream of high energy neutrons is a valuable tool.

It is a safe facility. During its previous years of operation it had an exemplary safety record - negligible radioactive emissions and effluents and extraordinarily low worker exposure to radiation.

Sincerely,  
Roger A. Rohrbacher

Mr. Roger A. Rohrbacher  
1612 S Dawes St  
Kennewick, WA 99338

**Response to Commentor No. 1042**

- 1042-1 1042-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.
- 1042-2 1042-2: DOE notes the commentor's views regarding the use of FFTF to support international nuclear research and development. Researchers from many foreign countries use DOE's high-flux research reactors for materials testing and experimentation. These facilities have the capability to maintain a high density of neutrons in a given test volume for materials testing; shorten the time needed for such testing; tailor the neutron flux to simulate the different reactor types and conditions; and instrument the core for close monitoring of the test conditions. Although the NI PEIS analyzes the expansion of U.S. civilian nuclear research and development, it is anticipated that FFTF would play a role in the continuing international research conducted in the United States. As described in Section 1.2.3 of the NI PEIS, some specific areas of research identified are advanced reactor development including materials and nuclear fuel research for advanced terrestrial or space reactors and for the Accelerator Transmutation of Waste system.
- 1042-3 1042-3: The commentor's positions on restarting FFTF and the safety record at FFTF are 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.

**Commentor No. 1043: Clark B. McKee**

16900 232<sup>nd</sup> Pl. SE  
Monroe, WA 98272  
425-788-5810  
8/29/00

Colette E. Brown, NE-50  
U.S. Department of Energy  
Office of Nuclear Energy, Science and Technology  
19901 Germantown Road, Room A-270  
Germantown, MD 20874-1290

Dear Ms. Brown:

I am a newcomer to the issue of how to best meet the nation's needs for radioisotopes and Pu-238, and have not seen the full PEIS. However I did attend the 8/30/00 hearing in Seattle, and would like to offer some comments based on that experience, plus my ten years in quality assurance management for the FFTF during its design, construction, startup testing and initial operation (until 1981).

First, I believe, and am sure you will agree, that the final EIS should be based only on relevant facts and objective analysis. It was abundantly clear at the Seattle meeting that those opposed to FFTF restart were telling at least some falsehoods (e.g., adding waste to the underground storage tanks), distorting the PEIS, and trying to discredit the FFTF by linking it to other completely unrelated problems and incidents on the Hanford reservation. Politics may well be a factor in the Secretary's final decision but must be kept out of the EIS.

Second, and most important, there was no mention in the 8/15/00 summary of how each of the alternatives would affect the number of fatalities from those cancers and other diseases that can be treated with radioisotopes. The summary does include the numbers of fatalities expected from conducting each of the alternatives, but I'm sure that for alternatives 1, 3 and perhaps 4, the lives to be saved outnumber the added fatalities by many orders of magnitude. DOE has a moral obligation to maximize its contribution to public health and safety. In this case that means bringing major additional isotope production on line as soon as possible. And that would seem to favor FFTF restart because FFTF has the largest production capacity and can very likely be brought on line in a matter of months rather than years. The EIS must address this question, preferably quantitatively, but at least qualitatively. If it doesn't, DOE could legitimately be accused of not caring about the people whose lives might be saved with radioisotope treatment.

Third, for each alternative, what happens to the wastes from the associated processing facilities?

Finally, the following question should be asked about alternative 1 if it hasn't already: Based on FFTF's design, construction and operating history, can the plant be considered

1043-1

1043-2

1043-3

1043-4

**Response to Commentor No. 1043**

- 1043-1:** DOE notes the commentor's views on the necessity for reliance on objective, factual information as the basis for sound decisionmaking. DOE is committed to providing the public with comprehensive environmental reviews of its proposed actions in accordance with NEPA, and to providing ample opportunity for public comment on those actions. Selection of facilities and site locations for accomplishing expanded civilian nuclear energy research and development and isotope production missions is not a political decision. DOE's 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.
- 1043-2:** No evaluation has been made in the NI PEIS of the health benefits associated with treating people with the radioisotopes produced under any of the alternatives assessed. The purpose of the PEIS is to determine the environmental impacts associated with each alternative being considered for implementation by DOE.
- 1043-3:** 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, including the waste associated with processing and fabricating the irradiated targets. These discussions can be found in the Waste Management sections of Chapter 4 of Volume I. 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.
- 1043-4:** DOE notes the commentor's support for Alternative 1, Restart FFTF.

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**Commentor No. 1043: Clark B. McKee (Cont'd)**

safe to operate? For design and construction, my answer would be yes. The plant was designed to the highest standards and on the basis of extensive development testing. It was managed by people who had been either in the nuclear navy or in the Westinghouse divisions that supplied the nuclear navy. It was certified to the ASME Boiler and Pressure Vessel code. It received and passed an NRC operating license review (No license was issued, of course, because NRC has no jurisdiction over federal reactors.) And we had a quality assurance program then that was at least as rigorous as any in use at commercial nuclear power plants today.

I left Westinghouse shortly after operation began, so had little experience with that phase. I understand, however, that its operation was free of major incidents (and that the original concern about possible sudden reactivity insertions proved unfounded.) But there is certainly a wealth of audit reports, management assessments, etc., that could shed light on how safely it operated.

Looking toward the future, several factors strongly suggest that the FFTF would continue to be safe. One is the absence of corrosion in the vessels and heat transport system. Liquid sodium is non corrosive to the materials of construction and soaks up any oxygen that happens to get inside, in preference to the stainless steel. The system operates at low pressure, and emergency core cooling can be effected through natural convection alone. And the fact that two employees were recently fired for falsifying records shows that management remains committed to strong enforcement of the rules.

I hope these comments will be useful. Again, I would like to stress the need for the EIS to address the lifesaving potential for each of the alternatives.

Very truly yours,



Clark B. McKee

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1043-4  
(Cont'd)

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1043-2

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**Response to Commentor No. 1043**

Commentor No. 1044: Mikal Dobbins

Response to Commentor No. 1044

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

**Draft PEIS Comment Form**

As someone who lives in the Portland area (the area that will be affected by Hanford activity), I vehemently oppose any effort by the DOE to re-open Hanford or build new reactors. I think the DOE should concentrate on cleaning up the nuclear waste that is already there. I believe if there are problems that need to be resolved that manufacturing plutonium-238 is not the answer. Medical isotopes to treat cancer is not necessary since cancer is caused by nuclear production. I do not care about NASA exploration. According to your report, NASA does not even want your product, so please stop pushing this non-useful system to the people. We don't want Hanford happened EVER!!! No you get it now!! Please do not ignore me please!!

1044-1

1044-2

1044-3

1044-4

1044-3

1044-2

**There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:**

- attending public meetings and giving your comments directly to DOE officials
- 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): Mikal Dobbins

Organization: \_\_\_\_\_

Home/Organization Address (circle one): 2520 NE Couch St.

Apt 10

City: Portland State: OR Zip Code: 97232

Telephone (optional): \_\_\_\_\_

E-mail (optional): mikald@yahoo.com

**COMMENTS MUST BE POSTMARKED BY September 18, 2000**

For more information contact: Colette E. Brown, NE-50  
 U.S. Department of Energy • 1901 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

**1044-1:** DOE notes the commentor's opposition to Alternative 1, Restart FTFE, and Alternative 4, Construct New Research Reactor.

**1044-2:** 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.

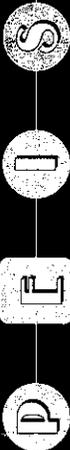
**1044-3:** DOE notes the commentor's opposition to enhancing its existing nuclear facility infrastructure to support production of plutonium-238 for use in future NASA space exploration missions. A May 22, 2000, correspondence from NASA to DOE identified that NASA no longer has a planned requirement 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 RTGs may be maintained as a backup. 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.

**1044-4:** The commentor's concern about cancers caused by nuclear production is noted. Chapter 4 of Volume 1 and Appendixes H through J provide the results of the evaluation of potential health impacts that would be expected to result from implementation of any of the range of reasonable alternatives presented in the PEIS, including normal operations and a spectrum of accidents that included severe accidents. The environmental

Chapter 2—Written Comments and DOE Responses

Commentor No. 1044: Mikal Dobbins (Cont'd)

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT



**Public Hearing Evaluation Form**

Please place a check mark in the box next to the public hearing attended:

- |  |  |
|--|--|
| <input type="checkbox"/> August 22, 2000<br>American Museum of Science and Energy<br>300 South Tulane Avenue<br>Oak Ridge, Tennessee 37830     | <input type="checkbox"/> August 30, 2000<br>Washington State Convention and Trade Center<br>800 Convention Place<br>Seattle, Washington 98101        |
| <input type="checkbox"/> August 25, 2000<br>Westcoast Idaho Falls Hotel<br>475 River Parkway<br>Idaho Falls, Idaho 83402                       | <input type="checkbox"/> August 31, 2000<br>Best Western Tower Inn and Conference Center<br>1515 George Washington Way<br>Richland, Washington 99352 |
| <input type="checkbox"/> August 28, 2000<br>Hood River Inn<br>1108 E. Marina Way<br>Hood River, Oregon 97031                                   | <input type="checkbox"/> September 6, 2000<br>Crystal Gateway Marriot<br>1700 Jefferson Davis Highway<br>Arlington, Virginia 22202                   |
| <input checked="" type="checkbox"/> August 29, 2000<br>Oregon Museum of Science and Industry<br>1945 SE Water Avenue<br>Portland, Oregon 97214 |  |

Please circle the appropriate number:

	Very Good	4	3	2	Poor
Your Level of Knowledge about the PEIS before the Hearing	5	4	3	2	1
Your Level of Knowledge about the PEIS after the Hearing	5	4	3	2	1
Time and Date of Hearing	5	4	3	2	1
Location of Hearing	5	4	3	2	1
Registration Process	5	4	3	2	1
Clarity of Displays and Handouts	5	4	3	2	1
Clarity of Presentations	5	4	3	2	1
Relevancy of Issues and Concerns Addressed	5	4	3	2	1
Opportunities for Discussion	5	4	3	2	1
DOE Officials' Willingness to Listen	5	4	3	2	1
Knowledge/Responses from Staff Attending	5	4	3	2	1

How could the public hearing format and materials be improved? *the only reason i knew about the hearing was through tvart of america. the DOE made no attempt to publicize the meeting.*

Was the public hearing helpful to you? *yes, but i believe the environmental impact of reopening the hanford reactor was not clearly or deeply explored*

Please continue on the other side if you run out of space. Please return your completed evaluation form to the registration desk or mail or fax to the address below.

THANK YOU - YOUR FEEDBACK IS IMPORTANT TO US

For more information contact: Colette E. Brown, NE-50  
U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874  
Toll-free telephone: 1-877-562-4851 • Toll-free fax: 1-877-562-4892  
E-mail: NuclearInfrastructure-PEIS@hq.doe.gov



7/27/00

Response to Commentor No. 1044

analysis showed that radiological and nonradiological risks associated with each of these alternatives would be small. Specifically at Hanford, 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. See, for example, Sections 4.3.1.1.9, 4.3.2.1.9, and 4.3.3.1.9 in Chapter 4 and the Summary Tables in Chapter 2 of Volume 1 of the NI PEIS.

Additionally, the NI PEIS evaluated the maximum cumulative radiation exposure to the public from all reasonably foreseeable Hanford Site activities over the 35-year time-frame. As shown in Section 4.8, less than 1 additional latent cancer fatality would be expected to occur among the local population as a result of radiation exposure from 35 years of Hanford operations.

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 this natural (non-Hanford related) radiation exposure. In that same 35 years, about 19,000 cancer fatalities from all causes (non radiological causes included) would also be expected in the same population.

1044-5

1044-5: DOE provided notice of scheduled public hearings in accordance with the requirements of CEQ and DOE regulations (i.e., 40 CFR Parts 1503.1 and 1506.6 and 10 CFR Part 1021.313, respectively). This included announcement of the hearings in the Federal Register as well as in the local media. In addition, copies of the Draft NI PEIS and/or the Summary (including the public hearing schedule) were sent to each individual or group listed to receive it at the address on record. Meeting notices were also sent to 6,459 organizations and individuals on the NI PEIS mailing list. Meeting minutes were mailed to 3,576 organizations and individuals in the States of Washington and Oregon.

**Commentor No. 1045: Bruce K. Gagnon**  
**Global Network Against Weapons and Nuclear Power**  
**in Space**

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**Global Network Against Weapons  
and Nuclear Power in Space**

September 5, 2000

Ms. Colette Brown  
DoE  
Office of Space & Defense Power Systems.  
NE-50  
19901 Germantown Rd.  
Germantown, MD 20874

Dear Ms. Brown:

I am writing to give our organizational comments to DoE's Draft PEIS concerning the expansion of DoE facilities in order to produce plu-238 for future NASA space missions.

First it should be noted that NASA does not need nuclear power for deep space missions as the European Space Agency (ESA) has now developed high-efficiency solar cells for deep space. While NASA claims that this is not possible, in fact ESA will be sending a mission called Rosetta beyond Jupiter using such new technologies.

It is clear to us that NASA and DoE do not want to acknowledge the existence of such alternatives because it runs counter to plans to expand the use of nuclear power into space.

The expansion of the use of nuclear power into space will of course mean that there will be an exponential number of launches from Cape Canaveral in coming years on rockets with 10% failure rates. We did not see anything in the PEIS that acknowledged the growing risk to life on Earth in the event of a launch accident with nuclear devices on-board.

We are aware that very recently eight workers were contaminated at LANL while fabricating future space nuclear powered devices. We are also aware that prior to the Cassini launch there was an epidemic of contaminations at LANL while they fabricated the RTG's for that mission. It is obvious to us that the expansion of nuclear power production and fabrication for future space missions will only mean many more cases of contamination of workers and the local environment.

P.O. Box 90083 • Gainesville, FL 32607 • (352) 337-9274  
globanet@mindspring.com • www.space4peace.org



**Response to Commentor No. 1045**

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**1045-1:** DOE notes the commentor's concern for NASA's use of nuclear materials for space missions and interest in the development of alternative energy sources for space missions, although 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 conducts a thorough NEPA evaluation for each launch.

**1045-2:** The commentor's concerns about worker and environmental contamination are noted. Eight workers were exposed to plutonium-238 the Los Alamos National Laboratory on March 17, 2000. Their exposure to plutonium-238 was caused by a leaking pipe connection in a support system serving a glovebox. As a result of this accident, the Secretary of Energy ordered a series of actions to increase worker safety and health and to avoid further accidental exposures.

Plutonium-238 processing facilities can be safely operated to support the nuclear infrastructure missions described in Section 1.2 of Volume 1. Sections 4.2-4.6 of Volume 1 provide the results of the evaluation of potential health impacts that would be expected to result from plutonium-238 processing, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that the radiological and nonradiological risks associated with plutonium-238 processing would be small.

**Commentor No. 1045: Bruce K. Gagnon (Cont'd)**  
**Global Network Against Weapons and Nuclear Power  
 in Space**

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2

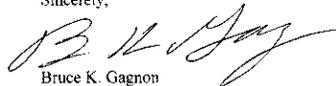
We know that the Pentagon is pushing NASA and DoE to expand nuclear power production for space. We know that the military has major plans for the use of nuclear power for space-based weapons and bases on the moon. Therefore we understand that the Pentagon must get the DoE to prepare the industrial infrastructure for this long-range program.

We also understand that the DoE has yet to undertake a serious clean-up of existing plutonium contamination at their facilities around the country. It is known that over \$300 billion is needed to complete such a clean-up program. Before DoE undertakes this new agenda for space nuclear power, which will only worsen the existing problem, we believe that you should spend our tax dollars on cleaning up the present mess!

The future of life on this planet is already under attack by past DoD and DoE nuclear activities. Now DoE, NASA and the Pentagon want us to fork over our hard earned dollars to move this nuclear nightmare into the heavens.

We strongly protest this proposed action and call upon DoE to pick the "No Action" alternative.

Sincerely,



Bruce K. Gagnon  
 Coordinator

1045-3

1045-4

1045-3

1045-5

**Response to Commentor No. 1045**

---

- 1045-3:** The commentor's concerns over the use of nuclear power in space-based weapons and other space-based facilities are noted, although issues such as these are beyond the scope of this NI PEIS. The nuclear infrastructure missions described in Section 1.2 of Volume 1 are unrelated to the national defense. Neither nuclear weapons nor components for nuclear weapons would be produced under the nuclear infrastructure alternatives described in Section 2.5. The scope of this NI 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.
- 1045-4:** DOE notes the commentor's opinion and concern about funding available for cleanup at DOE facilities.
- 1045-5:** DOE notes the commentor's support for the No Action Alternative 1.

**Commentor No. 1046: Mark Darienzo**

**Response to Commentor No. 1046**

**Draft PEIS Comment Form**

*I'm against the restart of the Fast Flux Test Facility.*

**1046-1**

*I'm for cleaning up Hanford and closing it down.*

**1046-2**

**There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:**

- attending public meetings and giving your comments directly to DOE officials
- 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: NuclearInfrastructure-PEIS@hq.doe.gov

Name (optional): Mark Darienzo

Organization: \_\_\_\_\_

Home/Organization Address (circle one): 1634 N Alberlast

Portland, OR

City: Portland State: OR Zip Code: 97217

Telephone (optional): \_\_\_\_\_

E-mail (optional): \_\_\_\_\_

**COMMENTS MUST BE POSTMARKED BY September 11, 2000**

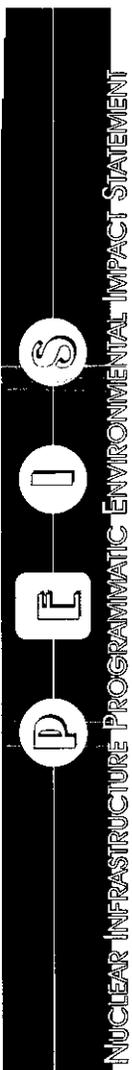
For more information contact: Colette E. Brown, NE-50  
 U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874  
 Toll-free Telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592  
 E-mail: NuclearInfrastructure-PEIS@hq.doe.gov



7/12/00

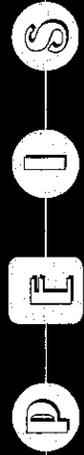
**1046-1:** DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

**1046-2:** 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.



Commentor No. 1047: C. C. Clements

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT



Draft PEIS Comment Form

We need FFTF, please restart it

1047-1

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

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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): C.C. Clements
Organization:
Home/Organization Address (circle one): 6802 CR 225
City: Brownwood State: TX Zip Code: 76801
Telephone (optional): (915) 646-2830
E-mail (optional): CARCARCLEM@AOL.COM

COMMENTS MUST BE POSTMARKED BY September 11, 2000

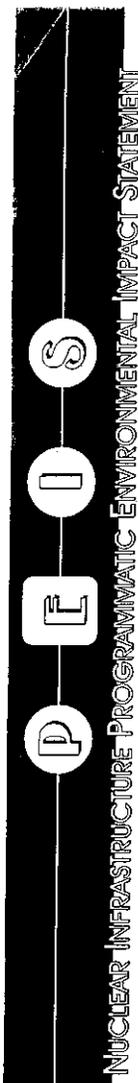
For more information contact: Colette E. Brown, NE-50
U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874
Toll-free telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592
E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov



7/12/00

Response to Commentor No. 1047

1047-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.



**Draft PEIS Comment Form**

I affirm the restrictive cap  
FFTF.

1048-1

1048-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

**There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:**

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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): CLAIRE GREINER  
 Organization: QWEST  
 Home/Organization Address (circle one): 302 TORBETT PMB 106  
RICHLAND WA 99352-2604  
 City: RICHLAND State: WA Zip Code: 99352  
 Telephone (optional): 509 372-8868  
 E-mail (optional): claire.e.greiner@rl.gov

**COMMENTS MUST BE POSTMARKED BY September 11, 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

## Commentor No. 1049: Duane Burstad

### Draft PEIS Comment Form

It is apparent from the PEIS that there is a need for both medical isotope production and Pu-238 production. I believe depending on other nations for our sources and needs is not prudent. I applaud DOE for heading in a direction of self-sufficiency.

I am particularly interested in the area of medical isotopes. Our country has been sadly lacking in this area. This is an area where DOE can help the individual, present treatment for cancer creates a great deal of suffering along with the cure. My six year old niece died from the cure (i.e., use of chemo therapy).

Of the choices provided I believe the start up of FFTF is by far the best.

It appears to be most effective (the facility already exists). It has the capability and capacity to provide all options of production. Minimal waste stream production. An adequate facility-life. A history of similar production capability. A proven safety record.

Both technically and costwise FFTF is the best option and should be restarted.

#### There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

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- 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): Duane Burstad

Organization: \_\_\_\_\_

Home/Organization Address (circle one): 3894 Hampton Dr.

City: West Riverview State: VA Zip Code: 99353

Telephone (optional): \_\_\_\_\_

E-mail (optional): burstadd@gte.net

**COMMENTS MUST BE POSTMARKED BY September 11, 2000**

For more information contact: Collette E. Brown, NE-50  
U.S. Department of Energy • 19001 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. 1049

1049-1

1049-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.



Commentor No. 1051: Vicki Y. Eddy

Response to Commentor No. 1051

Draft PEIS Comment Form

See Attached Letter

Multiple horizontal lines for writing a comment.

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- 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): Vicki Y. Eddy

Organization: FLUOR HANFORD - FFTF

Home/Organization Address (circle one): 602 S. Rainier  
Kennewick, WA 99336

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (optional): Day 509-376-2323

E-mail (optional): \_\_\_\_\_

COMMENTS MUST BE POSTMARKED BY September 11, 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



NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT



**Commentor No. 1051: Vicki Y. Eddy (Cont'd)**

August 30, 2000

Dear Ms. Brown,

I understand that I am to give my comments to you as I am asking for FFTF to be selected as the preferred alternative for Accomplishing Expanded Civilian Nuclear Energy Research and Development and Isotope Production Missions.

I have been working at FFTF for the last 13 years as a clerk. My position requires me to spend a great deal of time updating procedures in all areas of the plant. At FFTF we all undergo continuous safety training and the qualifications that are required for the work that we each do. We are very proud of our safety record, our work integrity and our ability to work together as a family from janitors up to plant managers.

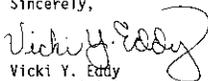
Under a lot of pressures during our years of being in standby mode, we have managed to keep our plant in top condition, think positively and have not compromised our safety standards. In spite of the reputation that our Hanford Area has inherited, we feel that we are the hope that may be able to overshadow that reputation and show that this Area can produce products that may someday help to erase the devastating effects of cancer and bone deteriorations. We have also shown that we are capable of many other missions in nuclear and industrial research.

We are not the liars or deceivers that environmental groups in Washington and Oregon are trying to make people believe. So many of those groups have instilled fear and uncertainty to uninformed people who chose not to take the time to look at the facts for themselves. We are not trying to "cover up" anything such as bomb production which is just one of the many fears that they are spreading.

My family moved to this area in 1950 and have lived here ever since except for the few years I was away. My children and grandchildren all live here. Our major commodities in this area are agriculture and vineyards, land development and our retirement communities. Do you think that I, as a mother and grandmother, would be working for a company that would bring devastation to my family, community or nation? If I felt that we were not one of the safest facilities that I could possibly be working in, then I would be the first to stand up and rally against it.

I can see only the good that we can do for our nation. And I hope that you can too.

Sincerely,

  
Vicki Y. Eddy  
602 So. Rainier  
Kennewick, WA 99336

**Response to Commentor No. 1051**

1051-1

1051-1: DOE notes the commentor's support for Alternative 1, Restart FFTF. The purpose of this NI PEIS is to evaluate the environmental impacts of reasonable alternatives to fulfill the requirements of the proposed missions, which include the production of medical and industrial isotopes, the production of plutonium-238, and nuclear research and development. The Record of Decision for the PEIS will be based on a number of factors including environmental impacts, costs, nonproliferation issues, schedules, technical assurance, policy, and program objectives.

1051-2

1051-2: DOE notes the commentor's views and concerns.

1051-1

**Commentor No. 1052: Michael J. Sullivan**  
**Sheet Metal Workers' International Association**

SHEET METAL  
 WORKERS'  
 INTERNATIONAL  
 ASSOCIATION



1750 New York Avenue, N.W.  
 Washington, D.C. 20006-5386  
 Phone: (202) 783-5880  
 Fax: (202) 662-0894

MICHAEL J. SULLIVAN  
 General President

September 6, 2000

Colette E. Brown, NE-50  
 U.S. Department of Energy  
 19901 Germantown Road  
 Germantown, MD 20874

Dear Ms. Brown:

Concerning the NI PEIS alternatives, I am writing this letter in support of restarting the FFTF. This facility is capable of fulfilling the isotope production responsibilities of the Department of Energy under the Atomic Energy Act.

The PEIS states, "Of particular need over the longer term are dependable sources of research isotopes and reactor facilities providing high volume flux irradiation for nuclear fuels and materials testing". The FFTF is well positioned to quickly and reliably provide this research and development program. I agree that the nation must move forward in clinical medicine, scientific research, and industrial endeavors, and this already existing facility has a proven track record in reliability for this program.

Previous studies have noted inhibited growth in the use of radioisotopes to provide a better life for our citizens. We have drifted towards a reliance on foreign suppliers, which is detrimental to the best interests of our country. First, we place our country in the position of having to rely on a foreign entity, but more important we are funding jobs outside this country. We need to assure that we take steps to sustain our loyal workers.

I fully support the intent of the NI PEIS in trying to determine the best answer to filling the gaps in the DOE infrastructure. The decision that the DOE has to make is not an easy one. There are many complex science and technical issues that need to be addressed. Choosing an already existing facility that is the newest in the DOE complex with a replacement value of almost \$2 billion makes the most sense to me. For the reasons mentioned above, I urge you to consider restart of the FFTF as the best alternative.

Sincerely,

MICHAEL J. SULLIVAN  
 General President

MJS/tsl

cc: A. T. Zlotopolski, Gen. Sec. Treas.



**Response to Commentor No. 1052**

1052-1

1052-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

1052-2

1052-2: DOE notes the commentor's viewpoint on the United States reliance on foreign suppliers for medical isotopes. If DOE decides to expand its nuclear infrastructure, this will reduce our reliance on foreign suppliers for medical isotopes.

1052-1

Commentor No. 1053: Lynn Lewis

Response to Commentor No. 1053

**Draft PEIS Comment Form**

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

I live here, downriver of the Hanford plant.  
 Please put all your resources into safe cleanup  
 of the entire area - and do not start up  
 any production of anything whatsoever.  
 Thank you.

1053-1

1053-2

**1053-1:** 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.

**1053-2:** DOE notes the commentor's opposition to Alternative 1, Restart FTFE.

**There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:**

- attending public meetings and giving your comments directly to DOE officials
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- 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: NuclearInfrastructure-PEIS@hq.doe.gov

Name (optional): Lynn Lewis

Organization: \_\_\_\_\_

Home  Organization Address (circle one): 3762 Rocky Ridge Ct

City: Hoad River State: OK Zip Code: 97031

Telephone (optional): \_\_\_\_\_

E-mail (optional): \_\_\_\_\_

**COMMENTS MUST BE POSTMARKED BY September 18, 2000**

For more information contact: Colette E. Brown, NE-50  
 U.S. Department of Energy • 19001 Germantown Road • Germantown, MD 20874  
 Toll-free Telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592  
 E-mail: NuclearInfrastructure-PEIS@hq.doe.gov



7/12/00

Commentor No. 1054: Sara M. Garrido

Response to Commentor No. 1054

Draft PEIS Comment Form

I support the restart of FFTF ->  
PLEASE RESTART FFTF FOR  
MEDICAL ISOTOPES

Sara M. Garrido

1054-1

1054-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- 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): DR. Sara M. Garrido

Organization: Columbia Basin Hematology/Oncology

Home/Organization Address (circle one): 7350 W Deschutes  
Kennewick

City: Kennewick State: WA Zip Code: 99312

Telephone (optional): (509) 7838744

E-mail (optional):

COMMENTS MUST BE POSTMARKED BY September 11, 2000

For more information contact: Coletto 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

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT  
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P

**Commentor No. 1055: Kim Burkland**

To: Collette Brown, NE-50 8/31/2000  
USDOE  
19901 Germantown Rd.  
Germantown, MD 20874

From: Kim Burkland  
410 9th Street (POB 401)  
Hood River, OR 97031

These are my written comments on the draft Environmental Impact Statement on FFTF Restart: As I have testified before, the USDOE should permanently shut down FFTF at Hanford. Please choose either Alternative 5 (1<sup>st</sup> choice) & shut down Hanford permanently or choose Alternative 2, an option that would also permanently shut down Hanford, but produce the medical isotopes and NASA's plutonium 238 at alternative sites.

First, the USDOE's compilations of prior public comment are extremely lacking and show your failure to listen to the public. The number of comments must be stated so that Secretary Richardson is very clear on where the people of the NW stand. Also failed to mention the FIVE city council resolutions against Hanford Restart.

1055-1

1055-2

**Response to Commentor No. 1055**

- 1055-1:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF, or Alternative 2, Use Only Existing Operational Facilities.
- 1055-2:** While all comments received during the scoping periods for both the Plutonium-238 Production EIS and the NI PEIS are part of the Administrative Record for the NI PEIS, Section 1.4 of Volume 1 and Appendix N are intended to provide a summary of the issues and associated trends identified during the scoping process rather than a tabulation of comments by specific issue. It should be noted, however, that NEPA and CEQ regulations do not require an agency to include and respond to each scoping comment as is required for public comments on a Draft EIS. In preparing the NI PEIS, DOE carefully considered scoping comments received from the public. Any perceived discrepancy in the grouping of comments raising any one particular issue or set of issues is attributable to the manner in which they were originally categorized and counted. For example, a number of statements, letters, or resolutions signed by multiple persons, such as city council resolutions mentioned by the commentor, were received by DOE (both for and against FFTF restart) in response to the request for scoping comments. Each such comment document was considered and counted as a single comment in the NI PEIS comment tracking system. The Office of Nuclear Energy, Science and Technology works closely with the Office of the Secretary to keep him informed of the progress on the NI PEIS, including stakeholder input.
- 1055-3:** DOE notes the commentor's opposition to restarting FFTF for enhancing its existing nuclear facility infrastructure. 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

## Commentor No. 1055: Kim Burkland (Cont'd)

USDOE failed to demonstrate a compelling need<sup>(1)</sup> for the:

- 1) production for space;
- 2) medical or research isotopes; and
- 3) nuclear energy research.

Nor is there adequate justification for producing them all at one site or domestically.

Next, you must include the recommendations of the Blue Ribbon panel (subcommittee for isotope research and <sup>production</sup> planning) that advised against the use of FFTF for medical isotope production.

Next, you must include the demand estimates<sup>from NASA</sup> for plutonium 238. According to my sources, the USDOE estimates are artificially high and do not take into account the possibility to renegotiate a <sup>current</sup> contract with Russia.

Next, it is improper to release the draft EIS for public comment without the following information—

- 1) cost analysis of restart and all alternatives
- 2) studies of treatment of waste at all proposed sites; and
- 3) non-proliferation impacts from FFTF and the importation of its radioactive fuel from Europe - this may be a treaty violation!!

1055-3

1055-4

1055-5

1055-6

1055-7

1055-6

## Response to Commentor No. 1055

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. 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. Under the No Action Alternative, DOE would continue to purchase plutonium-238 to meet the space mission needs for the 35-year evaluation period considered in the NI PEIS. However, DOE recognizes that any purchase beyond what is currently available to the United States through the existing contract would likely require negotiation of a new contract and may require additional NEPA review. 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

**Commentor No. 1055: Kim Burkland (Cont'd)**

All information listed on p. 2<sup>(3)</sup> must be given adequate review time for the public. <sup>that is released</sup>

1055-8

Next, USDOE failed to adequately characterize the environmental impacts from FFTF restart. The following statement is a slap in the face to the EIS statement and must be revoked and replaced with actual information:

"Environmental impacts associated with the existing inventory of spent fuel at Hanford site are minimal"

1055-9

This statement is erroneous. More than 2100 tons of corroding spent fuel is swimming in aging water filled basins adjacent to the Columbia River and poses one of the largest problems for clean up with an estimated cost of more than \$1.6 billion.

Next, USDOE must include the cost of FFTF and all companion facilities decontamination and decommissioning in the restart - not just every other alternative.

1055-10

Next, the USDOE fails to assess all existing contaminant sources at Hanford.

1055-11

Next, the USDOE fails to assess the cumulative impact of additional waste from the proposed

**Response to Commentor No. 1055**

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.

There is no requirement to conduct all of the proposed actions at one site. In the Record of Decision process, DOE could choose to combine components of several alternatives in selecting the most appropriate strategy. For example, DOE could select a low-energy accelerator to produce certain medical, research, and industrial isotopes, and an existing operating reactor to produce plutonium-238 and conduct nuclear research and development. Should FFTF be selected for restart in support of these missions, DOE expects it could utilize a 15-year supply of mixed-oxide fuel that would be available from Germany under favorable economic terms (i.e., no charge for the fuel).

**1055-4:** 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

## Commentor No. 1055: Kim Burkland (Cont'd)

FFTF restart to the existing waste sources. (A)

1055-11

Next, USDOE fails to adequately assess alternatives such as subsidizing university reactors or buying time @ private facilities.

1055-12

Next, the NO action alternative (5) must include the complete shut down of FFTF - NOT maintaining it on standby.

Next, USDOE failed to address the conflict of interest in using PNNL's evaluations when they (the company) are a proponent of restart and stand to gain from it financially.

Next, USDOE fails to assess the legality of introducing new programs and wastes into the highly contaminated 306 e or 325 buildings at Hanford that would be used w/ FFTF restart.

1055-13

And, FINALLY, you must admit that the real reasons to restart FFTF are in a hidden agenda that includes preserving jobs and starting up new weapons research or classified missions.

This action will not be tolerated by the public!

Shut down FFTF permanently, Make actual CLEAN-UP the priority of the rule at the Hanford site.

1055-1

Comply with the law, do your job right, and listen to the people!

1055-14

Thank you for the opportunity to comment.  
Kim Burkland

## Response to Commentor No. 1055

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.

DOE has taken the Expert Panel and NERAC report recommendations under consideration in developing the range of alternatives evaluated in the NI PEIS. These reports were made available to the public at the NI PEIS public information centers and on the Internet at [www.nuclear.gov](http://www.nuclear.gov).

**1055-5:** See response 1055-3. 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.

**1055-6:** The costs and nuclear nonproliferation impacts of proposed actions are not required by NEPA and CEQ regulations to be included in a PEIS. DOE prepared a separate Cost Report and Nuclear Infrastructure Nonproliferation Impact Assessment 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. Pursuant to CEQ regulations (40 CFR 1505.1(e)), agencies are encouraged to make ancillary decision documents available to the public before a decision is made. DOE mailed these documents to more than 730 interested parties on August 24 and September 8, 2000, respectively. Both reports were made available immediately upon release on the NE web site (<http://www.nuclear.gov>) and in the public reading rooms. DOE has also provided summaries of the Cost Report and Nuclear Infrastructure Nonproliferation Impact Assessment in Appendixes P and Q, respectively, in the Final NI PEIS.

**1055-7:** 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

*Commentor No. 1055: Kim Burkland (Cont'd)*

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*Response to Commentor No. 1055*

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programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision. 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.

- 1055-8:** 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.
- 1055-9:** The discussion in the Summary and Section 4.8.3.5 of Volume 1 on the cumulative impacts for spent nuclear fuel management at Hanford was revised to clarify that the management of the existing spent nuclear fuel at Hanford results in a dose of less than 0.1 millirem per year of the maximally exposed member of the public. This dose is well within the DOE limits given in DOE Order 5400.5. As discussed in that Order, the dose limit from airborne emissions is 10 millirem per year, as required by the Clean Air Act; drinking water is 4 millirem per year, as required by the Safe Drinking Water Act; and the dose limit from all pathways combined is 100 millirem per year. DOE has committed to remove the spent nuclear fuel at Hanford for ultimate disposition in a geologic repository.
- 1055-10:** 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

**Commentor No. 1055: Kim Burkland (Cont'd)**

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**Response to Commentor No. 1055**

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Alternative 1, FFTF Restart. 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.

**1055-11:** 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.

Ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The current inventory of wastes managed at the Hanford Site is identified in Section 3.4.11.1 of Volume 1. In addition, the generation rates of wastes associated with the NI PEIS options that use Hanford facilities are compared with the current waste generation rates at the site in Section 4.3 of Volume 1. As stated in Sections 4.3.1.1.13, 4.3.3.1.13, and 4.4.3.1.13, the generation rates of wastes at Hanford associated with the options that utilize either FFTF, FMEF and/or RPL/306-E would be much smaller than the current waste generation rates at the site. These volumes would also be small in comparison to the existing inventory at the site (Section 3.4.11.1, Volume 1). These comparisons were also made for the other options which involved INEEL and ORR facilities. 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.

**1055-12:** A number of facilities, including those already producing isotopes, were considered but were dismissed from further consideration (see Volume 1, Section 2.6). Among the reasons that some were dismissed was the

**Commentor No. 1055: Kim Burkland (Cont'd)**

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**Response to Commentor No. 1055**

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fact that they lacked sufficient neutron production capacity, were fully dedicated to existing missions, were not capable of steady-state neutron production, had insufficient power to sustain adequate steady-state neutron production, were unable to produce a constant, reliable source of neutrons due to dependency on operating schedules of their primary missions, are under construction with capacity fully dedicated to other planned mission, or have been permanently shut down. It should be noted that CLWRs were considered for plutonium-238 production, but were dismissed from further consideration for medical and industrial isotope production because facility modifications to produce isotopes with a short half life would be significant.

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.

**1055-13:** PNNL is not preparing this PEIS, although it has offered technical comments on it. These comments have been evaluated by DOE and the contractor preparing the PEIS. PNNL has also previously provided technical and cost analyses on matters related to the FFTF, which have undergone independent scrutiny, and have helped confirm the need for the environmental review now being independently developed. PNNL's work does not present a conflict of interest. Ultimately, DOE has full control over the contents of the PEIS.

FFTF and any associated facilities remain subject to compliance with environmental laws regardless of its future operational status. All Hanford activities are conducted in accordance with the 1998 Tri-Party Agreement (Washington Department of Ecology, U.S. EPA, and the U.S.

***Commentor No. 1055: Kim Burkland (Cont'd)***

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***Response to Commentor No. 1055***

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Department of Energy), which sets milestones and schedules for cleanup and restoration on all parts of the site. In August 1999, these agencies agreed to temporarily suspend FFTF M-81 series milestones until a final decision is made on the future of the facility by the Secretary of Energy. If a decision is made to restart FFTF, these agencies have agreed to consider the Agreement's milestones deleted. Should a decision be made to continue with shutdown of FFTF, appropriate negotiations must be made to create an appropriate set of new TPA milestones and target dates within (120) days of receiving proposed changes. FFTF restart would not affect the schedule or availability of funding for existing cleanup activities.

The 306-E facility is not contaminated and is being proposed as a location to conduct activities that do not involve radioactive materials. While the 325 Building has a large inventory of radionuclides associated with ongoing activities at the facility, the building is not contaminated in worker accessible areas. Operations at the 325 Building are conducted in accordance with applicable federal and state regulations and appropriate DOE Orders.

The 300 Area Revitalization Plan (DOE 1999) provides for continued multi-program R&D operations in the 300 Area, including operation of various laboratories, office facilities, and services. It also provides for consolidation (but not complete elimination) of radiological operations, with support for Hanford Site facility transition and environmental restoration efforts. The plan does not require closure of the 325 and 306-E buildings as long as they are needed for active research projects. Operation of these facilities would not violate any existing agreements between DOE and stakeholders or other legal obligations, nor would it affect ongoing or planned environmental restoration and facility transition activities.

The need to restart FFTF is described in Chapter 1 of the Final PEIS. In Chapter 4, the socioeconomic impacts of restarting FFTF are described. The economic welfare of Hanford and all DOE sites is important to DOE. However, any economic impact is secondary to the proper expenditure of taxpayer dollars.

As discussed in Section 1.2 of Volume 1, plutonium-238 would be produced to support NASA's deep space missions. Plutonium-238 is not

*Commentor No. 1055: Kim Burkland (Cont'd)*

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*Response to Commentor No. 1055*

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used to produce nuclear weapons. All missions considered in the NI PEIS are for civilian purposes.

**1055-14:** 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.

**Commentor No. 1056: Ivan Green**

2 Sep 2000

From: Ivan Green  
 1212 NE 26<sup>th</sup> Ave Apt 8  
 Portland OR 97232

To: Colette Brown, US DOE  
 Subj: PEIS, FFTF Hanford

In 1989, the DOE signed the Tri-Party Agreement for cleanup of Hanford. What compelling need has now arisen?

- 1) Plutonium in space? Threat to all earthlings!
- 2) Nuclear power? Economically dead issue!
- 3) Medical isotopes? Yes, I heard compelling testimony, but long-term carcinogenic effects on all of us must override the few!
- 4) Unstated goals? Weapons?

I urge the choice of Alt 5 or Alt 2:  
 No further development: cleanup the mess.

*Ivan Green*

Thanks for hearing at OMSI, Portland.

**Response to Commentor No. 1056**

**1056-1:** 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.

**1056-2:** DOE notes the commentor's views regarding the potential use of FFTF for expanding DOE's existing nuclear facility infrastructure. 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. However, no component of the proposed action is for the purpose of supporting any defense or weapons related mission. Section 1.2 of Volume 1 was revised to clarify the purpose and need of the proposed action.

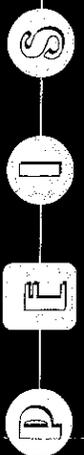
**1056-3:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF, or Alternative 2, Use Only Existing Operational Facilities.

Commentor No. 1058: Anonymous

Response to Commentor No. 1058

Draft PEIS Comment Form

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT



Restart FFTF!  
We need the medical isotopes  
to save lives.

1058-1

1058-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- 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): \_\_\_\_\_

Organization: \_\_\_\_\_

Home/Organization Address (circle one): 32055 Caballo Rd

Kennecook, WA

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone (optional): \_\_\_\_\_

E-mail (optional): \_\_\_\_\_

COMMENTS MUST BE POSTMARKED BY September 11, 2000

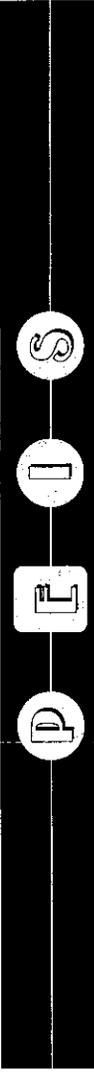
For more information contact: Colette E. Brown, NE-50  
U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874  
Toll-free Telephone: 1-877-562-4593 • Toll-free Fax: 1-877-562-4592  
E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov



7/12/00

**Commentor No. 1059: Crystal Rae**

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT



**Draft PEIS Comment Form**

I would like for my elected officials to really 'educate' themselves about the FFTE and consider the facts over 'public pressure' in making your decision regarding the future of medical isotopes & the FFTE.

1059-1

I am in favor of this very important health issue. Please keep the FFTE open for continued research projects. It is truly an asset to our nuclear infrastructure.

1059-2

**There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:**

- attending public meetings and giving your comments directly to DOE officials
- 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): Crystal Rae

Organization: none

Home Organization Address (circle one): PO Box 1096

City: Corvado State: CA Zip Code: 95428

Telephone (optional): \_\_\_\_\_

E-mail (optional): wistaria@saber.net

**COMMENTS MUST BE POSTMARKED BY September 11, 2000**

For more information contact: Colette E. Brown, NE-50  
 U.S. Department of Energy • 19001 Germantown Road • Germantown, MD 20874  
 Toll-free telephone: 1-877-562-4592 • Toll-free fax: 1-877-562-4592  
 E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov



7/12/00

**Response to Commentor No. 1059**

- 1059-1:** DOE notes the commentor's views on the necessity for reliance on objective, factual information as the basis for sound decisionmaking. DOE is committed to providing the public with comprehensive environmental reviews of its proposed actions in accordance with NEPA, and to providing ample opportunity for public comment on those actions. DOE's 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.
- 1059-2:** DOE notes the commentor's support for Alternative 1, Restart FFTE.

**Commentor No. 1060: Nathan Koenig**

**Response to Commentor No. 1060**

**Draft PEIS Comment Form**

I am thoroughly opposed to the re-start-up of the Hanford Nuclear Power Plant. The site needs to be cleaned up and no more nuclear power of any kind should be generated at the plant.

1060-1

1060-2

**1060-1:** DOE notes the commentor's opposition to Alternative 1, Restart FFTF; however, it should be pointed out that the FFTF is a research reactor and not an electrical power generating facility.

**1060-2:** 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.

The FFTF is not capable of producing power in the form of electricity. The proposed activity is to produce medical and industrial isotopes, produce plutonium-238 for NASA space missions, and for research and development.

**There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:**

- attending public meetings and giving your comments directly to DOE officials
- 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): Nathan Koenig

Organization: \_\_\_\_\_

Home/Organization Address (circle one): 1214 Lorain St

City: HR State: OR Zip Code: 97031

Telephone (optional): \_\_\_\_\_

E-mail (optional): \_\_\_\_\_

**COMMENTS MUST BE POSTMARKED BY September 18, 2000**

For more information contact: Colette E. Brown, NE-50  
 U.S. Department of Energy • 1901 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

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT



**Commentor No. 1061: Jeff and Lori Washburn**

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

**Draft PEIS Comment Form**

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I am in support of FFTF restart for medical isotopes, Pu-238 production and nuclear research & development. To scrap FFTF and its support buildings (EMEF + MASE) to build a new research reactor with less capability is ridiculous.

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**There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:**

- attending public meetings and giving your comments directly to DOE officials
- 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): Jeff Washburn / Lori Washburn

Organization: \_\_\_\_\_

Home/Organization Address (circle one): 5409 Mt. Air Way

City: Yakima State: Wa. Zip Code: 98901

Telephone (optional): (509) 452-1386

E-mail (optional): \_\_\_\_\_

**COMMENTS MUST BE POSTMARKED BY September 11, 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

1061-1

**Response to Commentor No. 1061**

**1061-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF, and opposition to Alternative 4, Construct New Research Reactor.

**Commentor No. 1062: Pam Ankrum**

**Response to Commentor No. 1062**

**Draft PEIS Comment Form**

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT



Our community needs FFTE, please restart it!  
 FFTE provides many opportunities for our future,  
 Take a hard look at all of the positive  
 aspects of restarting FFTE.

1062-1

1062-1: DOE notes the commentor's support for Alternative 1, Restart FFTE.

**There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:**

- attending public meetings and giving your comments directly to DOE officials
- 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-IEIS@hq.doe.gov

Name (optional): Pam Ankrum

Organization: Society of Women Engineers

Home/Organization Address (circle one): 231 Rachel Rd.

City: Kennawick State: WA Zip Code: 99333

Telephone (optional): (509) 627-1702

E-mail (optional): ankrum@3-cities.com

**COMMENTS MUST BE POSTMARKED BY September 11, 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

### *Commentor No. 1063: Marvin Lewis*

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NI PEIS Toll\_Free Telephone

9/11/00

Marvin Lewis  
3133 Fairfield Street  
Philadelphia, PA 19136  
215\_676\_1291

This is a comment for the record. Please don't send me any more paper. I have enough.

First of all, NASA is not doing enough to develop alternative, namely solar power sources for space missions.

**1063-1**

Two, we have some pretty nasty problems with worker contamination accidents at some of these production facilities. We don't need more.

**1063-2**

Third, expansion of the number of launches and nuclear power space vehicles from Cape Canaveral on rockets with noticeable failure rates, sometimes over 10 percent, will only increase the possibility of a deadly mishap, like a few pounds of this being smeared across Washington, D.C. and hopefully not Philadelphia because that is my address.

**1063-3**

The massive cost of expanded production of plutonium\_238 cannot be justified at a time when DOE admits it needs over \$300 billion to clean up it's existing problems at DOE facilities.

**1063-4**

The military is promoting use of nuclear power in space for space\_based weapons technology. Using nuclear power for space war will have severe environmental implications for life all over the earth, even though I am particularly worried about the U.S. because that is where I live.

**1063-5**

### *Response to Commentor No. 1063*

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**1063-1:** DOE notes the commentor's interest in the development of alternative energy sources for space missions, although issues such as NASA research priorities are beyond the scope of this Nuclear Infrastructure 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.

**1063-2:** Plutonium-238 processing facilities can be safely operated to support the nuclear infrastructure missions described in Section 1.2 of Volume 1. Sections 4.2-4.6 of Volume 1 provide the results of the evaluation of potential health impacts that would be expected to result from plutonium-238 processing, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that the radiological and nonradiological risks associated with plutonium-238 processing would be small.

**1063-3:** DOE notes the commentor's concern for NASA's use of nuclear materials for space missions.

**1063-4:** DOE notes the commentor's opinion and concern about funding available for cleanup at DOE facilities.

**1063-5:** DOE notes the commentor's concern for the use of nuclear power in space-based weapons. The DOE missions stated in this PEIS are not defense- or weapons-related.

***Commentor No. 1063: Marvin Lewis (Cont'd)***

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This whole idea is stupid. The only reason for it is to make money for global corporations. You can say that the reasons are other things, but I don't have to believe you and I don't.

**1063-6**

Those are my comments, I hope you got them. I hope you got the flavor of them too. Namely, I don't like the whole idea of space\_based weapons, specially plutonium in space, because it has a habit of coming back. And it might miss you and hit me, and I don't need that. Thank you.

**1063-5**

***Response to Commentor No. 1063***

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**1063-6:** 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.

Commentor No. 1064: James O. Dittmer

Draft PEIS Comment Form

The FFTF must be restarted to provide an irradiation source to make nuclear medicine isotopes and Pu 238 for NASA so that deepspace probes can continue. Also the FFTF could be used for future irradiation mission that have not be identified. The USA has very limited nuclear irradiation facilities and any new reactor or accelerators would be very expensive and couldn't do what FFTF has and could continue to do. The staff and infrastructure is still in place at FFTF.

Nuclear medicine has made great strides with procedures that are so much less risk and with much greater success. I have had two personnel experiences with the use of ~~radio~~ isotopes used to detect potential blockages around the heart, and this method was less intrusive than angiogram method.

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- 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): James O. Dittmer  
 Organization: Flou Daniel Hanford (currently disabled)  
 Home/Organization Address (circle one): 5217 W26A

City: Kennecott State: WA Zip Code: 99338

Telephone (optional): 509-783-9949  
 E-mail (optional): jadittmer@earthlink.net

COMMENTS MUST BE POSTMARKED BY September 11, 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. 1064

1064-1

1064-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

**Commentor No. 1065: Douglas J. McCarron**  
**United Brotherhood of Carpenters and Joiners of America**



UNITED BROTHERHOOD OF CARPENTERS AND JOINERS OF AMERICA

*Douglas J. McCarron*  
General President

September 8, 2000

Colette E. Brown, NE-509  
U.S. Dept. of Energy  
19901 Germantown Road  
Germantown, MD 20674

Dear Ms. Brown:

The official position of the United Brotherhood of Carpenters is in support of restarting the FFTF as outlined in the NI PEIS alternatives. The country needs the isotope production capabilities that are the responsibilities of the Department of Energy under the Atomic Energy Act.

The PEIS states, "Of particular need over the longer term are dependable sources of research isotopes and reactor facilities providing high volume flux irradiation for nuclear fuels and materials testing." This reactor built by our members is efficient and capable of supporting the research and development program. America must pursue clinical medicine, scientific research, and industrial endeavors, and FFTF has a proven track record in reliability for this program.

Studies have noted inhibited growth in the use of radioisotopes to provide a better life for our citizens. The health of our workers is at risk by a reliance on foreign suppliers, which is detrimental to the best interests of our country. This also means we are funding jobs outside this country. We need to be assured that DOE take the actions to ensure union members keep their operating and construction jobs.

Let's go forward under the NI PEIS in trying to determine the best answer to filling the gaps in the DOE infrastructure. The decision that the DOE has to make is not an easy one. There are many complex science and technical issues that need to be addressed. Choosing an already existing facility that is the newest in the DOE complex with a replacement value of almost \$2 billion makes the most sense to me. For the reasons mentioned above, I urge to consider restart of the FFTF as the best alternative.

Sincerely,

Douglas J. McCarron  
GENERAL PRESIDENT

DJM/jb

**Response to Commentor No. 1065**

1065-1

**1065-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF.

1065-2

**1065-2:** DOE NOTES the commentor's view. If DOE decides to enhance its nuclear infrastructure, this will reduce our reliance on foreign suppliers. However, it is not the intention of the DOE to become the sole supplier of domestic medical isotopes.

1065-1

Commentor No. 1066: Fred T. Matica

Draft PEIS Comment Form

NATURE HAS GIVEN US THE BEST NUCLEAR POWER PLANT, FIND AT A SAFE LOCATION — THE SUN AT 93 MILLION MILES IS FREE, CLEAN, REQUIRES NO MAINTENANCE & WILL OPERATE FOR BILLIONS OF YEARS TO COME! BUT DO USE CAUTION — SKIN CANCER, YOU KNOW!

SPACE PROGRAMS & ISOTOPES ARE WONDERFUL, BUT LETS FIRST SHOW HOW WE CAN SOLVE PROBLEMS ON EARTH USING THE "PAID-FOR" SPACE TECHNOLOGIES & PREVENT DISEASES RATHER THAN HAVING TO USE DANGEROUS SUBSTANCES TO "NUKE" TUMORS.

PLEASE COMPLY WITH THE "3 PARTY AGREE - / MENT & CLEANUP & SHUT DOWN HANFORD. I NO LONGER BELIEVE OR TRUST THE INTENTIONS OR ACTIONS OF THE D.O.E.

COLETTE, YOU DIDNT LOOK VERY GOOD AT THE PORTLAND MEETING. YOU ARE ON THE RECEIVING END OF A LOT OF HOSTILITY & IT IS TAKING ITS TOLL. PLEASE TAKE CARE OF YOURSELF. I WILL SAY A PRAYER FOR YOU.

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- 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): FRED T. MATICA

Organization: \_\_\_\_\_

Home/Organization Address (circle one): \_\_\_\_\_

1105 NW 79 TH CIRCLE

City: VANCOUVER State: WA Zip Code: 98665

Telephone (optional): (360)546-3806

E-mail (optional): \_\_\_\_\_

COMMENTS MUST BE POSTMARKED BY September 18, 2000

For more information contact: Colette E. Brown, NE-50  
U.S. Department of Energy • 19001 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



NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT



1066-1

**1066-1:** DOE notes the commentor's interest in solar energy. Consistent with its mandates under the Atomic Energy Act, DOE is proposing this enhancement for the purposes of addressing three primary needs: 1) to support the 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 for which the U.S. has no long-term, assured supply; and 3) to support civilian nuclear energy research and development in order to maintain the clean, safe, and reliable use of nuclear power as a viable component of the United States' energy portfolio.

1066-2

**1066-2:** 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.

**Commentor No. 1067: Vera Dafoe**

September 6, 2000

9449 SW 62nd Drive  
Portland, OR 97219

Colette E. Brown  
NE-50, U.S. Dept. of Energy  
1990i Germantown Road  
Germantown, MD 20874

RE: DRAFT EIS FFTF

Dear Ms. Brown:

I want to register my strong objection to all alternatives in the Draft EIS wherein the FFTF would be started up.

In my opinion, the plan to re-start the nuclear reactor is insane. We seem to have a group of mad scientists operating the Department of Energy when they would even consider such a plan.

There is already massive, uncontrolled contamination at Hanford. The Department seems unable to clean it up before the whole mess leaks into the Columbia River.

The general public--and those in Oregon, in particular--does NOT want the reactor restarted.

I don't want it restarted.

Hanford is a disaster waiting to happen.

How many hearings, how many letters, how many phone calls will it take to get across that we do NOT want this restart?

I say NO!

No reactor startup.

Money and energy should be directed to cleaning the existing and dangerous waste that is already at Hanford.

Sincerely  
*Vera Dafoe*  
Vera Dafoe

**Response to Commentor No. 1067**

1067-1

1067-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1067-2

1067-2: 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.

1067-1

1067-2

1067-1

1067-2

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.

Commentor No. 1068: Vincent D. Dobbin

Draft PEIS Comment Form

Ms. Colette E. Brown, NE-50  
U.S. Dept. of Energy  
19901 Germantown Road  
Germantown, MD 20874

Please - RESTART the FFTE Facility at Hanford!! Medical Isotopes are needed so badly, both for diagnostic procedures, & to treat & cure many of the cancers that are killing so many people! Building new reactors would take so many more years, and meanwhile we watch so many friends & relatives suffer from the cancers, chemotherapy & still do not live long!  
The public deserves what the FFTE is able to provide!!

1068-1

1068-1: DOE notes the commentor's support for Alternative 1, Restart FFTE, and opposition to Alternative 4, Construct New Research Reactor.

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- 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): Vincent D. Dobbin

Organization:

Home/Organization Address (circle one):

7150 S.W. Minter Bridge Road

City: Hillsboro State: OR Zip Code: 97123

Telephone (optional): 503-648-4028

E-mail (optional):

COMMENTS MUST BE POSTMARKED BY September 11, 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

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT



**Commentor No. 1069: John E. Nolan**

**Response to Commentor No. 1069**

411 Snyder Rd.  
Richland, WA. 99352  
September 6, 2000

Ms. Colette E. Brown  
NE-50 - Office of Nuclear Science  
Energy and Technology  
U.S. Department of Energy  
19901 Germantown Road  
Germantown, MD 20874

Dear Ms. Brown:

I hope someone reads these responses rather than just takes a head count of who is for or against. Nevertheless, for head count purposes I'm for the restart of FFTF.

However, the issue is bigger than the restart of the world's newest and best test reactor. The issue is basic to the purpose of the Department of Energy and the reason it exists to assure an energy supply for the United States of America. A reliable energy supply is vital for everyday living. It supports life as we know it, relieves drudgery, and lifts people out of poverty. Lack of energy can create havoc and disease in our cities.

DOE decisions should be based on scientific fact and not emotions — and be driven by the long term best interests of the citizens of our nation. Who in DOE will step forward and take those best interests seriously, and not be driven by the latest poll? Who will look at the long term needs and not today's snapshot? Who will look at the long term impact on taxpayers.

Today's snapshot of medical isotopes and <sup>235</sup>U supply are valid reasons for restart; however, the ability of the USA to obtain reliable scientific data for energy supply decisions in the future should not be lost by abandoning this safe, versatile test reactor.

Sincerely yours,

John E. Nolan  
RECIPIENT / DOE DISTINGUISHED ASSOCIATE AWARD, APRIL 1990

1069-1

**1069-1:** 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. In preparing the Final NI PEIS, DOE carefully considered comments received from the public.

1069-2

**1069-2:** DOE notes the commentor's support for Alternative 1, Restart FFTF.

1069-3

**1069-3:** DOE notes the commentor's view. DOE's Record of Decision for the NI PEIS will be based on scientific merit and a number of other factors including environmental impacts, costs, public input, nonproliferation concerns, program objectives and schedules.

1069-2

## Commentor No. 1070: Brad Yazzolino

Ms. Colette Brown  
 USDOE Office of Space & Defense Power SystemsNE-50  
 19901 Germantown Road  
 Germantown Maryland 20874-1290

Dear Agencies involved with the DOE/EIS-03100 of July 2000,

I think alternative #5 is the only reasonable alternative, and I am favor of it and only it.

As a Portland native I have been aware of the sad history of Hanford for many decades. I lived in Richland for a while in the early 50's. I remember the landscape there, the sagebrush hills are not at all barren, and not at all a wasteland. It teems with life. I have toured Hanford twice as a photographer, and I have seen the Columbia River shores there, I agree with the great number of fish biologists that say it is the absolutely the best salmon spawning habitat on the river.

Now that the Army Corps of Engineers and the present administration has Set aside Hanford reach as A National Monument, and said that they aren't going to breach any Snake River dams soon, then that just makes the 110 miles of river or so of rivershore near Hanford all the more precious. (If your milages differ slightly from mine, fine.. but don't forget to count both sides of the river and all that island shoreline too.)

I have been to a lot of these meetings on FFTF over the last few years and I agreed with the City of Portland City Council in September 1999 when they said "NO" to re-starting the FFTF. I commend all the Senators and Congresspeople who spoke up back then, and all of those who do so now, who still say NO to the re-start. To me the DOE is behaving like a petrified fossil with it's hand still on the steering wheel, and they, like Jesse Helms, and Slade Gorton, refuse to acknowledge the tide of history that we people, make with our lives everyday.

I think that the PEIS reveals that DOE and it's corporate friends still actually want to use the FFTF for tritium production, and other things such as the purpose that is stated on page D-16 of volume two of the PEIS, which says:

"There is particular interest in materials testing associated with extension of commercial nuclear power plant license renewals."

Well, I don't want to see old ready-to-die nuclear plants retrofitted with things cooked up in a re-sarted FFTF on the shores of our Columbia River. If FFTF is allowed to restart, in a while we'll learn that medical isotopes are only some of the things that it is "good" for.

Restarting this 20 year old liquid sodium cooled reactor in a area that has been so poisoned, and so desparately needs to focus on its difficult clean up mission is totally absurd, and most people outside of the DOE and the Tri-cities area see that.

Build a new medical isotope reactor somewhere else, somewhere nowhere near one of the largest rivers on the continent please, if you must, but do not re-start the FFTF! It is too expensive, the design is flawed and incomplete, the PEIS failed to include costs in a timely manner and the waste stream plan is inadequate and incomplete.

Brad Yazzolino  
 6451 SE Morrison Ct  
 Portland, OR 97215

1070-1

1070-2

1070-3

1070-4

1070-2

1070-5

1070-6

1070-7

1070-8

## Response to Commentor No. 1070

- 1070-1:** DOE notes the commentor's support of Alternative 5, Permanently Deactivate FFTF.
- 1070-2:** DOE notes the commentor's opposition to Alternative 1, Restart FFTF.
- 1070-3:** DOE notes the commentor's opposition to the use of FFTF for the expansion of its nuclear facility infrastructure. 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.
- 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 of Volume 1 provides information on the nuclear energy research and development mission.

## *Commentor No. 1070: Brad Yazzolino (Cont'd)*

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## *Response to Commentor No. 1070*

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**1070-4:** DOE was tasked by Congress in the Atomic Energy Act of 1954, as amended, to “ensure the availability of isotopes for medical, industrial, and research applications, meeting the nuclear material needs of other federal agencies, and undertaking research and development of activities related to development of nuclear power for civilian use.” The purpose of this PEIS is to determine the environmental and other impacts to accomplishing this mission from all reasonable existing and new DOE resources. The FFTF at the Hanford Site was one of several existing DOE resources that was assessed for this mission.

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 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.

Although the FFTF is 20 years old, it is DOE's newest reactor, it is in excellent condition and evaluations have been performed to show that it has sufficient life remaining to fully support the proposed 35 year mission.

**1070-5:** DOE notes the commentor's opinion.

**1070-6:** As discussed in Section 2.3.1.1, the design of the FFTF, as described in its Safety Analysis Report, was reviewed by both the U.S. Nuclear Regulatory Commission and the Advisory Committee for Reactor Safeguards prior to its operation. While some plant modifications would be made if DOE decides to restart the FFTF, the design of these modifications would be subjected to a rigorous review process. The analyses presented in the PEIS, which show very low risk associated with the operation of FFTF, reflect the changes needed to support the stated missions.

**1070-7:** 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

**Commentor No. 1070: Brad Yazzolino (Cont'd)**

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**Response to Commentor No. 1070**

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Energy so that he may make an informed decision with respect to the alternatives presented in the NI PEIS. Pursuant to CEQ regulations (40 CFR 1505.1(e)), agencies are encouraged to make ancillary decision documents available to the public before a decision is made. 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.

- 1070-8:** 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, Sections 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.

DOE has developed a draft "Waste Minimization and Management Plan for FFTF" to incorporate pollution prevention and waste minimization practices in its consideration of the future of FFTF. If a decision were made to restart FFTF, this plan would be used to ensure that optimum opportunities are provided for characterizing potential waste streams, identifying source reduction and recycling strategies, evaluating disposition options, developing sustainable designs, and implementing effective management strategies.

**Commentor No. 1071: R. Virgil Donovan**

R. Virgil Donovan  
14258 Dodson Rd NW  
Ephrata, WA 98823-9715  
Ph (509)754-0123  
Fax(509)754-3919

August 27,2000

Ms. Colette Brown, U S Department of Energy,  
Office of Space and Defense Power Systems, NE-50,  
19901 Germantown, Maryland 200874-1290

**Nuclear Infrastructure PEIS Comment:**

The United States Department of Energy is being encouraged to produce tritium in the Hanford FFFR reactor or in the TVA reactors. Lobbyists, potential tritium production contractors and that camp of politicians that will gain the most from their support in this election campaign are pushing this defense production with very little knowledge about the current stockpile and economic and nuclear future of US citizens.

In the early 1950's our nuclear warhead laboratories had perfected a warhead under 100 pounds weight that would yield 100 kilotons of blast. We were capable of producing a kiloton of blast with every pound of weight in a conventional plutonium uranium nuclear warhead. The two Japanese drops showed us that each kiloton of blast could cause 10,000 immediate and 20,000 total deaths over six months. We could have built our arsenal around 100 warheads of this simplicity and size and been able to create 200 million deaths without our fancy delivery and guidance systems. Perhaps a 1500 foot height detonation would be most efficient.

Terrorists could deliver the same warheads on foot, simply setting it to detonate at ground level. A ground level detonation would waste perhaps half of the blast but produce a great cloud of radiated dust which would travel around a world hemisphere.

Instead of such simplicity, we produced 70,000 nuclear and thermonuclear (hydrogen) warheads, having as many as 36,000 in the stockpile at one time. We absolutely had no need for more than 100 of that production and never utilized any tritium or thermonuclear ability. Total cost was \$4,400 per US citizen for each of 55 years or 58 billion dollars. We must stop grandizing weapons of mass destruction and reduce the world's stockpiles to common sense size. Any nation that has 100 warheads of an average two million civilian kill size needs a new congress and administrative staff if they are foolish enough to believe they are going to protect us from total annihilation.

This election let's put people in office that will do more than fill their pockets. Elect someone who knows that we don't need to spend one third of our defense money in a bloated irresponsible nuclear game. Lets make our world safer with a sensible stock pile size and no more tritium production and contamination.

Respectfully yours



R. Virgil Donovan  
Former nuclear stockpile coordinator

**Response to Commentor No. 1071**

**1071-1**

**1071-1:** DOE notes the commentor's interest in eliminating or reducing the arsenal of nuclear weapons. Issues of nuclear weapons production, dismantlement of weapons, and elimination of weapons systems are beyond the scope of this Nuclear Infrastructure PEIS. The DOE missions addressed in this NI PEIS are civilian nuclear energy missions and are not defense-related.

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**Commentor No. 1071: R. Virgil Donovan (Cont'd)**

R. Virgil Donovan  
14258 Dodson Rd NW  
Ph.(509)754-0123  
Fax(509)754-3919  
Ephrata, Wa 98823

January 24, 2000

Dear Editor:

According to the Brookings Institute study released by the government about two years ago the United States government has spent \$58 trillion dollars on nuclear warhead-oriented costs. This is over the 55 years since entering into such support and production. Figuring 240 million average US population during this time, that is \$4,400 cost per year, per individual US citizen.

Let's take a look at what a citizen has bought. In the 1940's, we dropped two warheads on Japan in a wartime situation. These two warheads yielded about 27 kilotons of explosive effect and killed 132,000 people immediately. About double that many losses occurred as a result of longer term deaths, radiation and eventual injury losses. That 27 kilotons of explosive power wiped out about 20,000 people per kiloton or let us say on average, one quarter of a million people.

In the early 1950s, we showed the world that we could produce 100 kilotons of yield from less than 100 pounds of atomic warhead. That little warhead which could be carried in a sack or suitcase was not big enough. We had to have a stockpile totally converted to thermonuclear strength in the 1960s potentially yielding 164 kilotons per warhead; further we required 36,000 of these at peak stockpile size

Figuring conservatively at one and a half million lives taken per warhead and total detonation we could annihilate 54 billion lives. There are only 6 billion persons in the world today. It would appear the American people bought nine times as much stockpile as they needed to wipe out everyone on earth. I believe the world would yield to our wishes if we only wiped out one third of the population. We have spent 27 times as much as we should have and that figures nothing for the loss of life due to residual radiation.

When are we going to put some politicians in office that can look out for our future? Those that have led us down this primrose path for the mighty warhead contractors should be turned out to pasture.

Respectfully yours,



R. Virgil Donovan  
Retired nuclear stockpile coordinator.

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**Response to Commentor No. 1071**

## Commentor No. 1071: R. Virgil Donovan (Cont'd)

R. Virgil Donovan  
1 (509)754-0123

14258 Dodson Rd. NW  
FAX 1 (509) 754-3919

Ephrata, Wa 98823-9715  
rvdonovon@qosi.net

February 26, 2000

To whom it may concern:

This is an important time in the election process and one of us must insist those we elect President and Congress government has wasted our funds in many places and fi

More  
ast, our  
r places.

Under 55 years of government leadership, we have spent \$4,400 every year for everyone in the US on nuclear warheads, mostly thermonuclear ( hydrogen warheads). We built 70,000 and kept 36,000 in the peak size stockpile ( about a 22 times overkill). The costs above include the most advanced delivery, guidance and detonating systems; nothing in the way of hand delivery here.

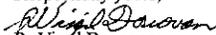
This year our government has again stepped forward and launched the planning of 8 systems of what they call triggers by the Los Alamos laboratory. In truth, 8 complete new warheads are under design and each is a thermonuclear(hydrogen) requiring the continuous processing of large amounts of new tritium. The Department of Energy is already pushing for the conversion of a reactor for tritium production. Tritium has already contaminated large areas of nuclear production plants, surrounding lands, residential areas and threatens ground water.

The first 3200 warheads will be converted for the Navy beginning in 2004. In the past, the Navy has gotten about one third of the laboratory results and the Army and Air force gets about equal shares so we are looking at another tremendously oversized expensive production or conversion of 9600 thermonuclear warheads. We will certainly continue to have an unneeded 7 times overkill.

Do we have elected Congressmen that will do more than pork barrel with these wasteful programs?. Where is the presidential or congressional candidate that will do more than take a hand out on this and when do we see this \$4,400 per year cost- per- person go for more soldiers pay and conventional defense rather than continuous overbuild and clean- up of the never ending residual nuclear mess.

100 nuclear warheads requiring no tritium (hydrogen component) still capable of yielding 100 kilotons of blast can produce a kill of 200 million people. That's one third the population of both the US and Soviet nations ( twice as much as would be necessary to subdue any two nations). We never want to see a total use of this much stockpile. The lives we could live would only be what the residual radiation and its results allows. Let's elect people that think and act on this.

Respectfully yours,

  
R. Virgil Donovan

## Response to Commentor No. 1071

## *Commentor No. 1071: R. Virgil Donovan (Cont'd)*

R. Virgil Donovan  
14258 Dodson Rd. NW  
ph. (509)754-0123  
Fax(509)754-3919  
Ephrata, WA 98823

August 27,2000

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

### Nuclear Infrastructure PEIS Comment:

I intend to attend the Richland, Washington comment session August 31 at the Best Western Conference Center. I hope to be able to present this letter as well as some of my thoughts at that presentation.

As you probably know I am a former administrative engineer for the Atomic Energy Commission which was many years back but that history had a lot of bearing on my thoughts. I was one of the engineers following the FFTF through preliminary and design stages prior to any construction. I transferred to Albuquerque Weapons Headquarters and was a coordinator in nuclear weapons production, transportation and storage until transferring to Rocky Flats in Colorado. I became the lump sum contract administrator for weapons facilities there until quitting in 1972 to become active trying to stop this political nonsense. As a Washington state citizen, I campaigned against Senator Henry Jackson seriously for two years before the 1980 election but gave up in the face of huge donations from the nuclear camp.

In 1966 and 67 the Atomic Energy Commission was at the peak of converting the total nuclear warhead stockpile from fission to fusion warheads and each weapon would the require a hydrogen component in addition to plutonium and uranium. The early fusion weapons used deuterium as a hydrogen component and it was thought that it was somewhat safer than tritium. However, the government had a large source of tritium as it was a byproduct of every reactor whether for weapons or power production. This information had simply been classified up till now but the political powers were able to convince our congress to make good use of that cheap illusive tritium instead of using a more stable deuterium? Naturally the politicians approved and we went forward to require more tritium than the approved power reactors were producing and even purchased foreign tritium.

Several other things happened in 1966 and 67. We were at the maximum warhead stockpile size of 33,000 and the Soviets were still only at 28,000. It mattered little that some 19,000 were strategic and the other 14,000 were of some smaller designation. What did matter to the other eleven coordinator's in our two offices at Albuquerque Operations Office were the stories we were hearing. The new Secretary of Defense was going to reduce the stockpile to under a limit of 2,400. It was rumored that only 400 of the stockpile could be used at maximum effectiveness

1071-1

## *Response to Commentor No. 1071*

**Commentor No. 1071: R. Virgil Donovan (Cont'd)**

---

or triggered at around 1,000 feet above the ground or no one could live in the total fallout. Thus the secretary felt that it sufficient to provide 800 or twice the lethal amount of weapons to each one of his branches of the service. The Army, the Navy and the Air force would then require 2400 warheads so they would have nothing to fuss about. Secretary McNamara found a new position as the world bank chair almost immediately. After all, President Kennedy thought we needed more weapons at that time, just after the elections.

At the present time, President Clinton and the soviets have an agreement to reduce the number of warheads in each stock pile. At last count our 33,000 is down under 18,800 and their stockpile has shrunk semiyearly. How could we have possibly justified converting to more production of tritium when we can't even justify the use of tritium ?

We should be moving toward converting back to fission weapons. They are as large as we will ever use and require no tritium. We decided years ago that large fissionable weapons are not needed but we keep them up through constant rebuild and retrofit with unneeded ,continuing expense and contamination. We need to look at retiring and cleaning up the production of all nuclear weapons and stopping the upcoming potential holocaust, not just the FFTF.

Respectfully yours,



R. Virgil Donovan,  
Retired nuclear stockpile coordinator

**1071-1  
(Cont'd)**

**Response to Commentor No. 1071**

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**Commentor No. 1072: Franklin County Board of County Commissioners (Sue Miller, Chair; Frank Brock; Neva Corkrum)**

Neva J. Corkrum  
District 1

Kathleen "Sue" Miller  
District 2

Frank H. Brock  
District 3



Fred H. Bowen  
County Administrator

Patricia L. Shults  
Executive Secretary

Mary Withers  
Clerk To The Board

Board of County Commissioners  
**FRANKLIN COUNTY**

September 5, 2000

Collette E. Brown, Document Manager  
Office of Space and Defense Power Systems (NE-50)  
Office of Nuclear Energy, Science and Technology  
United States Department of Energy  
19901 Germantown Road  
Germantown, Maryland 20874

Re: **Support for restart of the Fast Flux Test Facility**

Dear Ms. Brown:

Franklin County would like to make clear its unwavering support for restart of the Department of Energy's Fast Flux Test Facility (FFTF) at the Hanford Site.

With the multi-billion dollar facility and support infrastructure already in place, restart of the FFTF is the only reasonable, fair, and prudent use of taxpayer dollars in pursuit of the mission stated by the DOE in the draft *Nuclear Infrastructure Programmatic Environmental Impact Statement* of July 2000.

Based on the facility's availability, capacity for multi-product missions, demonstrated technology, cost effectiveness, minimal environmental impact, existing infrastructure, skilled labor force, and an excellent safety record, it is clear that restart of the FFTF is the only logical choice for the DOE to meet its stated objectives.

There is overwhelming support in Franklin County and throughout the Tri-Cities area for the reuse of this incomparable national asset. We are excited about both the economic benefits restart could bring to our region, and about the contributions our community can make toward meeting national and global needs in isotope research and production.

**Response to Commentor No. 1072**

**1072-1**

**1072-1:** DOE notes the commentor's support for Alternative 1, Restart the FFTF.

**Commentor No. 1072: Franklin County Board of County Commissioners (Sue Miller, Chair; Frank Brock; Neva Corkrum) (Cont'd)**

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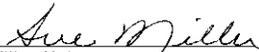
Collete E. Brown  
Page 2  
September 5, 2000

We believe that when the DOE carefully weighs its alternatives, restart of the FFTF will be the obvious choice for meeting the Department's research, development, and production objectives in the 21<sup>st</sup> Century. Thank you for the opportunity to comment on this matter.

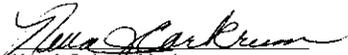
|| 1072-1  
(Cont'd)

Sincerely,

BOARD OF COUNTY COMMISSIONERS  
FRANKLIN COUNTY, WASHINGTON

  
Sue Miller, Chair

  
Frank H. Brock, Member

  
Neva J. Corkrum, Member

cc: US Senator, Slade Gorton (WA)  
US Senator, Patty Murray (WA)  
US Representative, Doc Hastings (WA - Fourth District)  
Governor of Washington, Gary Locke  
Board of Commissioners, Benton County  
Gerald Pollett, Heart of America Northwest  
Tri-Cities Economic Development Council

**Response to Commentor No. 1072**

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Commentor No. 1073: Lyle H. Rath

Response to Commentor No. 1073

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

Draft PEIS Comment Form

I support restart of FFTF for production of medical isotopes and I support restart of the FFTF for production of medical isotopes and fuel for space applications.

I have cancer which is in remission and we ought to be making it easier for cancer research by treatment which I had every 3 months for because I have this cancer.

I also feel that if I would sum out of fuel some day in the future and that we need nuclear energy for the rest of this century going.

1073-1

1073-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:

- attending public meetings and giving your comments directly to DOE officials
- 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): LYLE H. RATH

Organization: \_\_\_\_\_

Home/ Organization Address (circle one): \_\_\_\_\_

City: STOVER, State: MO Zip Code: 65078

Telephone (optional): \_\_\_\_\_

E-mail (optional): \_\_\_\_\_

COMMENTS MUST BE POSTMARKED BY September 11, 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  
 Email: Nuclear.Infrastructure-PEIS@hq.doe.gov



Commentor No. 1074: Anton Grambihler

Response to Commentor No. 1074

NUCLEAR INFRASTRUCTURE PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT



**Draft PEIS Comment Form**

Please ~~keep~~ <sup>put</sup> FFTF reactor in operation  
for Medical Isotopes and defense needs.

1074-1

1074-1: DOE notes the commentor's support for Alternative 1, Restart FFTF; however, it should be pointed out that FFTF would not have any defense missions under the proposed action.

**There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:**

- attending public meetings and giving your comments directly to DOE officials
- 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): Anton Grambihler

Organization: \_\_\_\_\_

Home  Organization Address (circle one): 2008 Davison Ave

City: Richland State: WA Zip Code: 99352-2015

Telephone (optional): (509) 946-7837

E-mail (optional): ajgrambihler@nsga.com

**COMMENTS MUST BE POSTMARKED BY September 11, 2000**

For more information contact: Collette 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

**Commentor No. 1075: Archie Wilcox**

228 Indian Court,  
Richland, WA 99352  
September 4, 2000

Colette E. Brown, NE-50  
U.S. Department of Energy  
19901 Germantown Road  
Germantown, MD 20874

Dear Ms. Brown:

I attended the PEIS meeting in Richland on Thursday, August 31, 2000 and was impressed with your presentation and with the public input. I offer the following comments.

The FFTF should be restarted for the three missions that are being considered. This should be done as rapidly as possible to support both cancer treatment and cancer treatment research. I believe that the FFTF has the capacity to produce medical isotopes for both treatment and research.

I hope that the safe operating history of the FFTF is an important part of the PEIS. The FFTF operated safely for about ten years with a very minimal effect on the environment.

Dr. Robert Shenter quoted a figure of 1500 cancer deaths per day. It would be of interest to estimate how many of those deaths would be averted by the use of medical isotopes produced by the FFTF.

The cancer occurrences per year should be used to estimate the following items:

a) the fraction of these cancers that could be treated with radioisotopes.

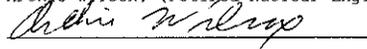
b) the percentage of successful treatments.

and c) the costs of treating these cancers.

If these calculations were done, these costs could be compared to the costs of conventional treatment. This would be a useful addition to the PEIS.

Sincerely,

Archie Wilcox, (retired Nuclear Engineer)



1075-1

1075-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.

1075-2

1075-2: The operational history of FFTF (worker exposure data, annual radiological emissions, safety history and analysis) was used in the development of the human health impact assessment for all alternative options that included the restart of FFTF. DOE agrees that 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 (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.

1075-3

1075-3: No evaluation has been made in the NI PEIS of the health benefits or monetary costs associated with treating people with medical isotopes produced under any of the alternatives assessed. The purpose of the PEIS is to determine the environmental impacts associated with each alternative being considered for implementation by DOE.

**Commentor No. 1077: Larry Egly**

From: Ice@hotrmhmr.org%internet  
[SMTP:LCE@HOTRMHMR.ORG]  
Sent: Wednesday, September 06, 2000 6:21:44 PM  
To: INFRASTRUCTURE\_PEIS, NUCLEAR  
Subject: PEIS On Expanded Production of PLU\_238  
Auto forwarded by a Rule

U.S. Department of Energy  
NE\_50, 19901 Germantown Rd.  
Germantown, MD 20874\_1290

Dear Ms. Brown:

The purpose of this message is to place on the public record my views for the draft Programmatic Environmental Impact Statement concerning the DoE plan to expand production of PLU\_238 for future space missions.

My thoughts are summed up in three words: don't do it.

There are a variety of reasons to not expand production of PLU\_238. Some of the more important considerations are listed below.

NASA should develop solar power sources for space missions before utilizing more nuclear material. The European Space Agency has already developed high\_efficiency solar panels for deep space use, so we can too.

Rockets launched from Cape Canaveral have had a ten percent failure rate. Increasing the number of nuclear powered space devices placed on such unreliable launch vehicles will certainly increase the possibility of deadly accidents.

DoE has stated that it needs more than \$300 billion to clean\_up existing problems at DoE sites. This should be accomplished\_\_ to protect the public and the environment\_\_before any funds are expended to exacerbate the clean\_up back log by expanding production.

1077-1

1077-2

1077-3

**Response to Commentor No. 1077**

- 1077-1:** DOE notes the commentor's opposition to the DOE production of plutonium-238 for use in future NASA space exploration missions. Section 1.2.2 of Volume 1 was revised to clarify the purpose and need for reestablishing a domestic plutonium-238 production capability to support NASA space exploration missions.
- 1077-2:** DOE notes the commentor's concern for NASA's use of nuclear materials for space missions and interest in the development of alternative energy sources for space missions, although 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.
- 1077-3:** DOE notes the commentor's opinion and concern about funding available for cleanup at DOE facilities.
- 1077-4:** DOE notes the commentor's concern for the use of nuclear power in space-based weapons, although issues such as the use of nuclear power sources in space-based weapons systems are beyond the scope of this Nuclear Infrastructure PEIS. 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, including the production of plutonium-238 for civilian NASA space exploration missions, are civilian nuclear energy missions and are not defense-related missions.

***Commentor No. 1077: Larry Egly (Cont'd)***

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Some of this expanded production will probably be used by the military for space\_based weapons. This could have egregious effects on the earth and all of humankind.

1077-4

Thank you for adding by remarks to the public record.

Respectfully,  
Larry Egly  
4400 N. 19th #254  
Waco, TX 76708

IM4PEACE

***Response to Commentor No. 1077***

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**Commentor No. 1078: William E. Schenewerk**

---

From: Edward\_S\_Ruff@rl.gov%internet  
[SMTP:EDWARD\_S\_RUFF@RL.GOV]  
Sent: Wednesday, September 06, 2000 11:55:46 AM  
To: INFRASTRUCTURE\_PEIS, NUCLEAR  
Subject: Dr. William Schenewerk \_ Letter To LA Times On Nuclear Energy  
Auto forwarded by a Rule

FYI: Forwarding copy of letter by Dr. William Schenewerk, which discusses nuclear power and future energy needs of society.

Thanks,

Ed S. Ruff, Sr. Design Engineer  
Fluor Federal Services, Hanford Spent Nuclear Fuel Project  
MCO and Fuel Basket Fabrication  
PO Box 1050, Mail Stop L6\_58  
Richland, WA 99352

509\_376\_2140 Phone, 509\_372\_0638 FAX  
edward\_s\_ruff@rl.gov

\_\_\_\_ Original Message \_\_\_\_

From: William Schenewerk  
[mailto:William.Schenewerk@parsons.com]  
Sent: Wednesday, September 06, 2000 5:51 AM  
To: cahodge@home.com; caryn.schenewerk@gte.net;  
Edward\_S\_Ruff@rl.gov;  
elkobe@yahoo.com; fred.schenewerk@redriver\_ex.army.mil;  
Hervitage@aol.com; jbrittin@apsc.com; JSBothwell@aol.com  
Subject: Sent the following useless letter to the LA times

William E. Schenewerk william.schenewerk@parsons.com  
5060 San Rafael Ave, Los Angeles CA 90042\_3239  
323\_257\_6672

**Response to Commentor No. 1078**

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**1078-1:** DOE notes the commentor's concerns about future energy needs.

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***Commentor No. 1078: William E. Schenewerk (Cont'd)***

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Re LA TIMES, Sunday 09032000

Lloyd J. Dumas's editorial is the typical anti\_ technology editorial that seems to appear on a regular schedule. The words "arrogance" (false superiority) and "solar energy" seems to be part of these editorials. After a large number of complaints, there is offered the crumbs of solar and wind energy. Sometimes we get offered hemp.

Wind energy had its day 200 years ago. Sail\_ powered ships are as fast as early steam\_ powered ships, under optimal wind conditions.

Today there are no sail\_ powered merchant ships. The 1998 California renewable energy production is half the 1988 California renewable energy production. A random visit to the Livermore CA wind\_ energy windmills will show: 1/3 running, 1/3 not running, and 1/3 in pieces.

The economics of solar energy is very bad. Base\_ loaded solar\_ thermal power generation is best done using ammonia\_ water distillation and recombination for energy storage. Energy storage cost is roughly 1/4 total cost. All energy storage methods lose roughly half the collected energy. As a result, any energy storage doubles collector area. Power production is roughly 50 W/m<sup>2</sup> of mirror, assuming cooling\_ water is available. Annual energy production is roughly 50 kWh/m<sup>2</sup> of mirror, using 250 sunny days, 6 hr/day and 70% plant availability. Materials to build a house cost over \$200/m<sup>2</sup>. Tracking mirrors will cost at least as much, \$200/m<sup>2</sup>.

Energy storage cost, based on mirror area, is \$50/m<sup>2</sup>.

Resulting total cost is \$250/m<sup>2</sup>, based on collector area. At 15% investment and maintenance cost, power costs is a rock\_ bottom 0.75 \$/kWh. This is 8 to 10 times the present cost of electricity.

This ratio has not improved in the last 30 years. Photo\_ voltaic solar gives up any potential advantage over solar\_ thermal by requiring batteries for energy storage. Storage battery plates crumble after a year of deep\_ cycle use.

For the last 30 years natural gas was by far the cheapest source of energy. Energy policy since 1974 is based on cheap natural gas.

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***Response to Commentor No. 1078***

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**Commentor No. 1078: William E. Schenewerk (Cont'd)**

Existing coal and nuclear plants were built before cheap natural gas arrived by pipeline.

Coal and nuclear plants had to charge \$0.10/kWh, largely to pay off high\_interest loans. Until 2000, a jet airplane motor burning natural gas could sell power at \$0.05/kWh and make money. Regulated utilities charged roughly \$0.07/kWh to pay the average generation cost.

Everybody got amnesia over what happened when the phone company was broken up. Same cost and worse service. Now we get utility deregulation. The poor (sniff sniff) utilities got stuck with theatomic power plants and a few fossil plants. The nukes will be nearly paid off when deregulation is complete. The utilities, except

Los Angeles DWP, were denied the responsibility of power generation.

California gas\_fired plants were scattered among independent power producers. Cheap natural gas was supposed to make everyone's utility bill decrease.

Now the party may be over. Expensive oil and natural gas arrived on the heels of utility deregulation. Gas\_fueled airplane motors will have to charge \$0.10/kWh for electricity. Half this charge will be spent on natural gas at \$5/1000 ft^3. Rising gas costs and the threat of price controls may cause investors to cancel planned generating capacity.

It gets worse. Global warming may be arriving sooner than expected.

We are looking down the teeth of an extinction event. Mosquitoes are already moving north, carrying pestilence. There is war, every 20 years or so, over dwindling oil reserves.

Failure to deploy at least 1800 atomic power plants by 2020 will guarantee global warming exceeds +3 Centigrade by 2100, with no end in sight. 28,000 breeder reactors are needed by 2080 to shut down fossil fuel consumption by 2080. This will hopefully stop global warming at +2.5 Centigrade. A new light water reactor is competitive at \$0.10/kWh electricity cost. Correct energy policy requires understanding machines, thermodynamics, resource production, radiation health effects and population dynamics.

William E. Schenewerk, Ph.D., P.E.  
See attached for details.

**Response to Commentor No. 1078**

*Commentor No. 1145: Laurie Pavey*



Laurie Pavey  
30800 S. Arrow Ct.  
Canby, OR 97013-2222



Collette E. Brown  
NE-50  
US Dept. of Energy  
19901 Germantown Rd.  
Germantown, MD 20874

20874X1207 76

h

Dear Collette,

7-8-00

Please do not recommend a start-up of The FFTF at Hanford. Reactor operation would create so much more radioactive waste and we already have so much waste to deal with already. Let's solve the waste problems we already have at Hanford before we add to the problem.

The fire that occurred at Hanford a month ago shows how fragile and close to disaster that area is.

Please decommission the FFTF!

Laurie Pavey  
33785 SE Terra Circle  
Corvallis, OR 97333

Sincerely,  
Laurie Pavey

1145-1

1145-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF, and support for Alternative 5, Permanently Deactivate FFTF.

1145-2

1145-2: 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.

1145-3

1145-3: See response to comment 1145-1.

*Response to Commentor No. 1145*



**Commentor No. 1146: Duane H. Freeborn (Cont'd)**

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**Response to Commentor No. 1146**

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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.

- 1146-4:** 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. With planned plant upgrades, FFTF would be able to operate safely for the 35 year time period being considered in the NI PEIS.

**Commentor No. 1147: Alberta Gerould**

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

76 [Barcode]

Alberta Gerould 3439 NE Glavin St. Portland, OR 97232  
 3439 NE Glavin St. Portland, OR 97232

**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:

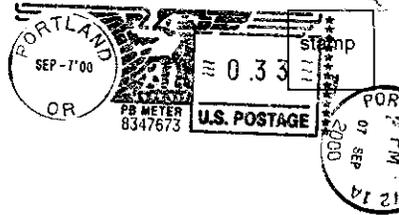
Not only is nuclear power a potential for  
 stimulate the weapons of war, but the DOE  
 would be going in the absolute opposite  
 direction from the way they served the  
 at Hanford  
 people to solve the the 210 tons of spent fuel  
 in 6 basins 450 yards from the Columbia River  
 Name and the 178 tanks of waste. Perhaps  
 54 million gallons of waste into the Columbia  
 Address River with his cleanup in profit.  
 City, state Alberta Gerould, 3439 N.E. Glavin St. Portland, OR 97232-3404

**Response to Commentor No. 1147**

- 1147-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.
  - 1147-2: DOE notes the commentor's interest in reducing the arsenal of nuclear weapons, although issues of nuclear weapons production, dismantlement of weapons, and elimination of weapons systems are beyond the scope of this Nuclear Infrastructure PEIS.
  - 1147-3: Hanford tank waste and K Basin issues are not within the scope of this PEIS, as none of the alternatives considered would add to these waste volumes. Disposition of these wastes is the subject of the ongoing cleanup program at Hanford.
- 1147-3: 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 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.

**Commentor No. 1148: Wendy Bourg**

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

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:

*We have not solved the problem of  
disposing of highly toxic byproducts of  
nuclear reactors. I believe that other sources  
of energy are more safe for people and the  
environment until clean nuclear disposal is a reality*

Name Dr. Wendy Bourg  
Address 3105 NE 35th Place  
City, state Portland OR Zip 97212

**Response to Commentor No. 1148**

**1148-1:** DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

**1148-2:** DOE notes the commentor's concern regarding 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.

The NI PEIS assumes, for the purposes of analysis, that Yucca Mountain Nevada, would be the final disposal site for DOE's high-level radioactive waste and spent nuclear fuel. As directed by the U.S. Congress through the Nuclear Waste Policy Act, as amended, Yucca Mountain is the only candidate site currently being characterized as a potential geologic repository for high-level radioactive waste and spent nuclear fuel. DOE has prepared a separate EIS, "Draft Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High Level Radioactive Waste at Yucca Mountain, Nye County, Nevada" DOE/EIS-0250D, July 1999), which analyzes the environmental impacts from construction, operation and monitoring, related transportation, and eventual closure of a potential geological repository.

**1148-3:** DOE notes the commentor's interest in alternative energy sources, although issues of research and development of alternative energy sources are 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.

Commentor No. 1149: Todd Ransford

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 [Barcode]

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:

*We need renewable energy sources  
I am opposed to the disastrous environmental  
consequences of nuclear waste.*

Name Todd Ransford, Ph.D  
Address 3105 NE 35th Place  
City, state Portland OR Zip 97212

1149-1

1149-2

Response to Commentor No. 1149

1149-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

1149-2: DOE notes the commentor's interest in alternative energy sources and concern over nuclear waste, although issues of research and development of alternative energy sources and the cleanup of existing nuclear waste sites are 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 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 nuclear infrastructure alternatives.

Commentor No. 1150: Christopher Ann

Hanford Watch  
2285 SE Cypress  
Portland, Oregon 97214



Ms. Colette Brown  
U.S. Department of Energy  
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NE-50  
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0874-1207 [Barcode]

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:

*ANY ACTIVITY OTHER THAN COMPLETE CLEANUP  
AT HANFORD IS A CRIME AGAINST HUMANITY  
LET ALONE TO OTHER SPECIES  
OTHER SOURCES MUST BE CONSIDERED FOR MEDICAL  
ISOTOPES. THE FFTF ENVIRONMENTAL IMPACT STATEMENT MUST  
ADDRESS THE ENTIRE HANFORD COMPLEX - ITS  
SAFETY - GROUND SEEPAGE FROM LEAKING CONTAINERS  
ETC. IT HAS BEEN PUBLICLY STATED THAT THE SIGHT WILL NEVER BE  
CLEANABLE.*

Name Christopher Ann (CHRISTOPHER ANN)  
Address 748-A NE 76th Ave  
City, state PORTLAND, OR Zip 97213

Response to Commentor No. 1150

- 1150-1: DOE notes the commentor's opposition to Alternative 1, Restart FFTF.
- 1150-2: DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford and the risk of contamination to the Columbia River. 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.
- 1150-3: 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.  
  
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 United States 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.
- 1150-4: The purpose of this NI PEIS is to evaluate the environmental impacts 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 NASA space missions, and nuclear

***Commentor No. 1150: Christopher Ann (Cont'd)***

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***Response to Commentor No. 1150***

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research and development. It is beyond the scope of this NI PEIS to consider other site-wide issues of safety and environmental contamination, as mentioned by the commentor, which neither affect nor are affected by the alternatives under consideration. Section 3.4.9.4 of Volume 1 does provide a discussion of the accident history of the Hanford Site as it relates to existing human health risk. 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. The cumulative impacts of the alternatives evaluated at each of the candidate sites are presented in Section 4.8 of Volume 1.



**Commentor No. 1152: Rayner Ward**

Hanford Watch  
2285 SE Cypress  
Portland, Oregon 97214



Ms. Colette Brown  
U.S. Department of Energy  
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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: *It's*

*extremely dangerous (for thousands of years) there's  
no rational solutions for dealing with the nuclear  
waste already in existence, much less future waste,  
it's totally unnecessary, a corrupt rogue technology,  
incredibly expensive and sets a bad example to the world.*

Name Rayner Ward  
Address 2235 N. Alberta St.  
City, state Portland, OR Zip 97217

1152-1

1152-2

1152-3

**Response to Commentor No. 1152**

**1152-1:** DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

**1152-2:** DOE notes the commentor's concern regarding 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.

The NI PEIS assumes, for the purposes of analysis, that Yucca Mountain Nevada, would be the final disposal site for DOE's high-level radioactive waste and spent nuclear fuel. As directed by the U.S. Congress through the Nuclear Waste Policy Act, as amended, Yucca Mountain is the only candidate site currently being characterized as a potential geologic repository for high-level radioactive waste and spent nuclear fuel. DOE has prepared a separate EIS, "Draft Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High Level Radioactive Waste at Yucca Mountain, Nye County, Nevada" DOE/EIS-0250D, July 1999), which analyzes the environmental impacts from construction, operation and monitoring, related transportation, and eventual closure of a potential geological repository.

**1152-3:** DOE notes the commentor's opposition to restart of the 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. The NI PEIS evaluates the environmental impacts of a range of

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***Commentor No. 1152: Rayner Ward (Cont'd)***

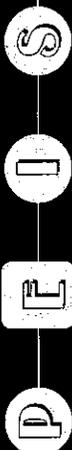
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***Response to Commentor No. 1152***

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reasonable alternatives for accomplishing DOE's mission. In addition to restarting the FFTF, the NI PEIS also evaluates alternatives that would either employ the use of existing facilities or rely on the construction of new facilities. Potential cost impacts associated with these alternatives are presented in an ancillary report.



**Draft PEIS Comment Form**

Having been involved with Nuclear reactor since 1963 been both Navy Nuclear and Civilian operator (SRO) and DOE Certified. I am acutely aware of the impact of losing capabilities and competent staff on nuclear research and production. I feel our country must stay active and competent in nuclear technology for the present and future of our country. The FFTF is one of the last vestiges of engineering and technology at its best. Therefore it is worthy of being held active and available for continuing its knowledge and experience (training and operation) besides the benefits that the medical research and technology provide.

We need FFTF, please restart it!

**There are several ways to provide comments on the Nuclear Infrastructure PEIS. These include:**

- attending public meetings and giving your comments directly to DOE officials
- 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): John F Perfect

Organization: Flora Daniel Stanford

Home/Organization Address (circle one): PO Box 4

City: Grand Coulee State: WA Zip Code: 99133

Telephone (optional): 509 633 2424

E-mail (optional): \_\_\_\_\_

**COMMENTS MUST BE POSTMARKED BY September 11, 2000**

For more information contact Colette E. Brown, NE-50  
 U.S. Department of Energy • 19901 Germantown Road • Germantown, MD 20874  
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 E-mail: Nuclear.Infrastructure-PEIS@hq.doe.gov



7/12/00

1153-1

1153-1: DOE notes the commentor's support for Alternative 1, Restart FFTF.