

## Comments from the Portland, Oregon, Public Hearing (August 29, 2000)

### Commentor No. 2421: Anonymous

**2421-1** — I've been coming to these meetings for many years, since 1983 and I've been hearing the same thing. When they told us that Purex was okay, there would be no effect from Purex, no leakage, then we know that the radiation leaked from the 200 area. Then they said they wanted to keep the N reactor running. They had meetings in Portland to keep the N reactors running. You know, they wanted to keep it running up there. And they shut it down. Thank goodness for a lot of people. It's really hard, in 1983, we did a walk from Astoria to Hanford to the gates of Hanford. We were the first peace group to ever walk into Hanford and we started working to shut down Hanford with a lot of people's help.

I've been there when the breeder reactor was running in the early years and you know, the lives — I'm saying lives because I stood in front of the DOE office and I heard DOE officials say that you're not — you don't know what you're talking about when we told them about the leaks and everything happening. And now, look what's happening.

I can remember going to a meeting with some people and a Native American woman came up to me and she said why are you our children dying of leukemia? Remember the plutonium and the radiation that was mined on Native American land came to Hanford and now it's affecting people, Native American people.

You know, from the radiation down on the Navajo Reservation I saw kids with birth defects. Now you tell me that there's no — what happens if there's an accident at Hanford? And I just wanted to ask another question. What happened if you lost the water behind Grand Cooley Dam? What would happen? It would be over the top of Hanford. So I mean not many people talk about that. Yeah, it would be over everything, but you'd have a major nuclear accident. And it's real hard for me to get up here and speak because I've heard — I was up there years ago and listened to the stuff. My father worked up there and died of cancer. I mean it's — people — I hear certain comments from some of the Richland people, but you know, I know, it's you know. Just like the fire up there, you know, you said that there was no radiation leakage — I mean no radiation up there. Now the new paper that came out said oh, there was some allowable limits of plutonium? Does anybody know what allowable limits of plutonium or background radiation? Plutonium is a manmade subject and you know, it's made. It's not — there's no background to plutonium. It's made. And now it's — we let 300 balloons loose at Hanford in 1983 when we did that walk and they landed in a schoolyard in Hermiston, Idaho. That's how far the balloons went and that's the route of — there was another thing. There was a fire in the stack at Purex and they said there was nothing to be worried about, but the information came out that there was contamination released. So how do we know? I have heard this same thing over and over and over again. The DOE saying. I've been coming to these meetings, like I said, from 1983 and it's the same stuff coming out and I don't believe you. Maybe if they needed to start it up and maybe if there was an accident

### Response to Commentor No. 2421

**2421-1:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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. In recognition of DOE's position to take expeditious action in regards to Hanford cleanup, 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. These activities include future waste management activities (as estimated in the Hanford Comprehensive Land Use Plan), tank waste remediation, K Basin spent nuclear fuel management, decommissioned naval reactor plant disposal, and Plutonium Finishing Plant Stabilization (see section 4.8.3.3). As shown in Table 4-173, the dose to the maximally exposed individual would be expected to remain well within regulatory limits. Based on an exposure period of 35 years, 0.21 (<1) latent cancer fatalities would be expected to occur among the local population over the 35-year period as a result of Hanford related radiation exposure. FFTF is approximately 4.5 miles from the Columbia River. There are no discharges to the river from FFTF and no radioactive or hazardous discharges to groundwater. As indicated in analyses presented in Chapter 4 of Volume 1 (e.g., Sections 4.3.1.1.4, 4.3.3.1.4, 4.4.3.1.4, 4.5.3.2.4, and 4.6.3.2.4), there would be no discernible impacts to groundwater or surface water quality at Hanford from operation of Hanford facilities that would support the nuclear infrastructure missions described in Section 1.2 of Volume 1. No radioactive materials were "released" in the Hanford Wildfires of 2000. Wildfires did resuspend some materials already in the environment. The resuspended materials were low, slightly above natural background levels. Since the initial stages of the fire and continuing to the present, DOE, in conjunction with the Washington Department of Health and the federal EPA, have conducted environmental monitoring on and near the Hanford Site to assess potential radiological releases. Monitoring will also continue over the long term. DOE has made these monitoring results available to the public as rapidly as possible with the results to date posted on a dedicated page on the Hanford web site at <http://www.hanford.gov/>. Regarding plutonium releases, DOE monitoring data has shown elevated levels (above levels normally seen) of plutonium in the Hanford 200 Areas. The most recent monitoring data available from EPA shows elevated levels (above background) of plutonium associated with 6 of the

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*Commentor No. 2421: Anonymous (Cont'd)*

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then people would realize. I've had people tell me that maybe what we need is an accident to wake up people. I mean, what do we want, a Chernobyl in the Northwest? The tank is leaking up there. I mean when you see children affected by the uranium on a Navajo Reservation from the tailings and you know, it makes you look and think about that.

*Response to Commentor No. 2421*

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61 ambient air filters collected from 23 locations surrounding the Hanford site. All of these DOE and EPA results are below EPA's "protective action guides" for emergency situations, EPA National Emission Standards for Hazardous Air Pollutants, hazardous air pollutant dose limits set by the State of Washington, and within or below EPA's acceptable risk range for protecting public health and the environment. DOE will continue to work with the Washington Department of Health and the EPA and will post additional monitoring results as they become available. As stated in Chapter 5 of the NI PEIS, "it is DOE policy to conduct its operations in a manner that ensures the protection of public health, safety, and the environment through compliance with all applicable Federal and state laws, regulations, orders, and other requirements." This chapter also discusses the applicable Federal Environmental, Safety, and Health Laws, Regulations, and Executive Orders, U.S. Department of Energy Orders, and State Environmental Laws, Regulations, and Agreements that pertain to the NI PEIS alternatives.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2423: Anonymous*

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**2423-1** — I'm here to say a definite no to starting Fast Flux Test Facility in a nuclear reservation for any reason including isotopes for medical purposes.

**2423-2** — We don't need it [FFTF] and for nuclear weapons production be it material for the existing weapons under stewardship.

*Response to Commentor No. 2423*

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**2423-1:** DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

**2423-2:** The only missions being considered for FFTF at this time are those analyzed in the NI PEIS, which are the production of isotopes for medical research, and industrial uses; plutonium production for future NASA space exploration missions; and U.S. nuclear research and development needs for civilian application. None of the alternatives in the NI PEIS include defense missions and would not contribute to future weapons production.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2424: Anonymous*

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**2424-1** — We can turn the tide on cancer and we can make a difference. We must put aside antiquated environmental phobias and see the restart of FFTF for what it is, hope for the future.

**2424-2** — Alternative 2, using existing facilities are totally unacceptable.

**2424-3** — The No Action option is a death sentence for untold millions of people. I realize that by law, the report had to include this option, but it should not be seen as viable.

*Response to Commentor No. 2424*

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**2424-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF, and opposition to Alternative 2, Use Only Existing Operational Facilities, and the No Action Alternative.

**2424-2:** See response to comment 2424-1.

**2424-3:** See response to comment 2424-1.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2425: Anonymous*

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**2425-1** — I want to follow, like the old gentleman here that talked following the officials. I'm kind of like him. I've been around a long time. Now I'd like to go back a little further than he did. I'm talking about atomic energy. Now I don't want to go all the way to Japan and so on, but I'd like to bring up the subject of the hell bomb. I wonder how many young people remember that. The hell bomb, they called it. It was fired on Bikini Island and I know that island. I was there on a ship one time before this happened. Anyway, a strange thing about it, when it was shot it was heard over the air oh, what a wonderful thing it was. It was a choke of sun, oh, what a glorious thing. At that time, can you imagine that? And no thought of what happened to those people that lived for ages on those islands. Think about the people for a change.

They had to take those people away from there to shoot that bomb. Okay, they sent them way south on another island and I found out about this afterwards. The article come out in the National Geographic Magazine, a very good expose of it, this come out in the 1960s. I forgot the issue, but it's there. And it exposed this. After 10 years, I believe it was, they — the authorities assumed that nature over the world would assimilate the problems around it and they would bring these people back and let them try to live there again. Well, they've come back and some of them and got some fish. I forgot one thing too, the Japanese fishermen warned us about it. They said some of the fish they caught there were not fit to eat. They had found out all this before. Okay, people were brought there to give it a try again and they couldn't stay. They started getting sick. So they sent them back to the island before. That is what the magazine said and that's the only report I've heard since. It's been a hush. I tell you, it's been a hush of that. And it's just about time that we quit this stuff.

*Response to Commentor No. 2425*

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**2425-1:** DOE notes the commentor's opposition to nuclear weapons and concern over the effects on the public of weapons testing, although these issues 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 are civilian nuclear energy missions and are not defense-related.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2426: Anonymous*

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**2426-1** — You haven't even cleaned up this mess from 60 years ago. And it's been what, it's been in the river?

My father worked at Hanford. He was an engineer there. He left me when I was two years old. It's like I don't trust really anything from this corporate state we live under any more. It's lied to me. It's lied to the Native American people here who were ripped off. Let's just put it on their land. Let's just bury it in the ground somewhere and hope it goes away. This is a waste that I think all your degrees that you have and learned about this process and Hiroshima and Nagasaki weren't enough. We should really look a little deeper.

**2426-2** — We spend how much of our lives working for a government that has potentially is the greatest leadership capabilities in the world. But it doesn't follow its own words, so to speak. I just think it's time we started looking at alternatives. If, you know, research, you know, I think is a very important tool and we need to take and look at the alternatives other than just what allopathic medicine has conditioned us to believe and live by, standards that took its original core from the earth. . .

*Response to Commentor No. 2426*

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**2426-1:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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.

**2426-2:** DOE examined numerous alternatives and options (see Section 2.5) to meet the purpose and need of the proposed action (see Section 1.2) of the NI PEIS. It is beyond the scope of the PEIS to examine alternatives to the medical use of radioisotopes in the treatment of disease.

## Comments from the Portland, Oregon, Public Hearing (August 29, 2000)

### Commentor No. 2427: Anonymous

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**2427-1** — I favor Alternative 5.

**2427-2** — I've been to a lot of these meetings on FFTF over the past few years and I agree with the City of Portland City Council in September 1999 when they said no to the restarting of the FFTF.

**2427-3** — Hopefully, the DOE will eventually be left behind and Hanford will be managed by some agency that can take care of it properly.

Restarting this 20-year-old sodium-cooled, liquid sodium-cooled reactor in an area that has been so poisoned and so desperately needs to focus on its cleanup mission is totally absurd and most people outside of the DOE and the Tri-Cities area do see that.

**2427-4** — I think the DOE and its corporate friends still actually want to use the FFTF for tritium production and other things such as the purpose that they state on page D-16 of Volume II of the PEIS which says "there is a 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 restarted FFTF on the shores of our Columbia River.

**2427-5** — Build a new medical isotope reactor somewhere else, somewhere nowhere near one of the largest rivers on the Continent, please, if you must, but don't restart the FFTF.

### Response to Commentor No. 2427

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**2427-1:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF, and opposition to Alternative 1, Restart FFTF.

**2427-2:** See response to comment 2427-1.

**2427-3:** 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. 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.

**2427-4:** The only missions being considered for FFTF at this time are those analyzed in the NI PEIS, which are the production of isotopes for medical research, and industrial uses; plutonium production for future NASA space exploration missions; and U.S. nuclear research and development needs for civilian application. No component of the proposed action is for the purpose of producing tritium. The commentor's reference to materials testing associated with extension of commercial nuclear power plant license renewals falls under the mission of nuclear research and development needs for civilian application, as discussed in Section 1.2.3 of Volume 1.

**2427-5:** If selected in the Record of Decision, Alternative 4, Construct New Research Reactor, would result in the construction of a new reactor at an as yet unidentified DOE site. If this alternative were selected, additional NEPA review would evaluate site location.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2428: Anonymous*

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**2428-1** — My sister-in-law, she's on the Board of Directors for Citizens for Medical Isotopes. Now when I heard this, when she told me that she was trying, working hard to restart FFTF I thought that she had lost all her moral values. I was very angry. Now please listen to me, please, okay, because I've been down, I've taken this journey.

For the first time in my anti-nuclear life I opened my ears just a little tiny bit to listen, just a little bit because she was my sister-in-law and she was sitting in my front room, okay? I began to realize from her facts that can be substantiated by the U.S. Department of Energy, I would only listen to that, that's all she had to share with me. Only facts.

*Response to Commentor No. 2428*

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**2428-1:** Thank you for your comment on the NI PEIS.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2429: Anonymous*

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**2429-1** — This is a complex topic that you're talking about and complex information that you're giving us tonight, but I'm beginning to get the idea that the bottom line here is something about restarting a nuclear energy program for the supply of energy, even though nuclear energy is really not what the people want.

**2429-2** — I would much rather you see the amount — use the amount of money that you have talked about tonight to do two things. One, to clean up the mess in Hanford to the best of your ability, . . .

**2429-3** — . . .secondly, to use that money for research and development of wind energy and solar energy.

*Response to Commentor No. 2429*

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**2429-1:** The only missions being considered for FFTF at this time are those analyzed in the NI PEIS, which are the production of isotopes for medical research, and industrial uses; plutonium production for future NASA space exploration missions; and U.S. nuclear research and development needs for civilian application. Restart of a nuclear energy program for the supply of energy is not within the scope of the NI PEIS. However, clean, safe, reliable nuclear power has a role today and in the future for our national energy security. In recognition of this need, nuclear energy research and development programs have been initiated to address potential long-term barriers to expanded use of nuclear power (e.g., nuclear waste, proliferation, safety, and economics) and to ensure that current nuclear power plants can continue to deliver adequate and affordable energy supplies. Because it is unlikely that existing facilities could fully and effectively support these nuclear energy research and development initiatives without disturbing their existing missions, DOE is proposing to enhance its nuclear facility infrastructure to also support these activities. Further information on the need for nuclear energy research and development is provided in Section 1.2.3 of Volume 1.

**2429-2:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

**2429-3:** DOE notes the commentor's interest in solar and wind 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

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*Commentor No. 2429: Anonymous (Cont'd)*

*Response to Commentor No. 2429*

development, can currently only be met using nuclear reactor or accelerator technologies.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2433: Anonymous*

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**2433-1** — But I want to talk about something that I saw when I was there at the FFTF site when someone was doing some testing on the IVHM which is the in vessel handling machine that pulls these 2,000 pound, 20 foot long fuel pins from the core. The guy overrode some of the safety systems. He picked the pin up too high and broke the chain off which dropped this pin down into the core, buckling up some of the reflector shields and after the repair was done, I heard the number that it cost was somewhere around \$1 million. And I think these people should be able to have to take a look at this report and all the pictures that were taken if they're going to consider restarting this reactor. They really need the right to see the damage that happened to this core.

*Response to Commentor No. 2433*

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**2433-1:** This incident occurred during construction testing in about 1978, prior to loading sodium or fuel into the reactor. As part of the testing, all of the IVHM safety systems were overridden which, coupled with an error in judgement by the test engineer, resulted in damage to the IVHM and a few baffle plates (which are outside of the core region). The baffle plates were repaired, and the damaged IVHM was replaced with the spare. Additionally, design changes were made to the IVHM to prevent this type of accident from reoccurring. Subsequent testing demonstrated full acceptability of these systems, which were successfully operated for more than 10 years without any indication of problems emulating from this construction accident. In retrospect, the design improvements that resulted from the incident actually increased the safety of IVHM operation.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2435: Anonymous*

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**2435-1** — I'm also here to speak out for closing down — for Alternative 5.

**2435-2** — And cleanup. Please start to clean up the goo.

*Response to Commentor No. 2435*

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**2435-1:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

**2435-2:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2440: Anonymous*

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**2440-1** — That's a tough act to follow. Unlike a lot of you in this room I had 16 nuclear free years. I was 16 years when we dropped the bomb on Hiroshima. Six years later I was down at the Nevada test site and you dropped a bomb on me. I've listened to the lies of the AEC and the DOE told these many years. I remember the Atoms For Peace Program. In many ways, this resembles the Atoms For Peace Program because this is going to do everything. This is going to cure cancer. Atoms For Peace, they were going to dig a canal to cross Nicaragua. They were going to mine diamonds with it. The Russians even tried it. Killed off a lot of miners. So I'm here to tell you the DOE in my opinion is not a bastion of credibility or truth. I don't believe anything you people say. And that's unfortunate.

The insulation between the people and the government, much of it began at the advent of the nuclear program for the Manhattan Project because it became legitimate to lie to the people because it was in the people's best interest and that program and that attitude has persisted to this day. And I for one am really not sorry I'm as old as I am because I don't see anything bright about the future for this world, for this nation or this world because of the sword of Damocles that hangs over our heads.

**2440-2** — And I want to register my opposition to the restart of the FFTF. . .

**2440-3** — I want you to honor your obligation to shut it down. . .

**2440-4** — I want you to honor your obligation to . . .clean it up.

*Response to Commentor No. 2440*

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**2440-1:** DOE notes the commentor's concerns.

**2440-2:** DOE notes the commentor's opposition to Alternative 1, Restart FFTF, and support for Alternative 5, Permanently Deactivate FFTF.

**2440-3:** See response to comment 2440-2.

**2440-4:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2442: Anonymous**

**2442-1** — I don't know if you'd call me patient. It's a misnomer. Actually, I've been sort of pondering this whole pull out the number process and I think that there's a tremendous amount of time wasted and thus we have a very empty place compared to a lot of eloquent speakers we had here who are willing to come out for tonight, so something is wrong with this process. It didn't quite work like you had hoped.

So reasons against restart of the FFTF. First of all, and you I believe have heard from me, Colette, the process is flawed. A late cost analysis and a missing nonproliferation analysis make this the usual DOE piecemeal process. And so you brought your cost analysis tonight. We've all had a lot of time to read it and make comment on it.

**2442-2** — The FFTF would add at least 16 tons of waste to the most polluted site in the Western Hemisphere. Unacceptable.

**2442-3** — Production missions undermine clean up efforts at Hanford...

**2442-4** — We already have agreements with Russia and Canada to supply us with isotopes and Pu-238. This is a quiet changing of policy by people inside the DOE and beholden to them to those who stand to benefit financially from a restart of the production at Hanford. One of the points that I'd like to make there is that PNNL, Pacific Northwest National Laboratory which sits up on Hanford land and makes a lot of money doing all sorts of research and very little of which has to do with clean-up, has written — has had a lot of input into this EIS and they have lobbied. The labs have a tremendous lobby in Congress for this kind of thing and also with the DOE Headquarters. And they're the ones who stand to benefit by restarting the FFTF. They're the ones who are going to get the jobs. They're the ones who are going to get more research, etcetera, etcetera. So Nancy was exactly right when she said there are different motives here and motive always lies in money and power.

**2442-5** — This PEIS does not give a detailed analysis of the suitability of the use of the FFTF. You haven't really done a good analysis there. It is woefully inadequate in its analysis of the environment and socioeconomic-economic impacts. The use of the 300 Area buildings as support for operating FFTF was recently a complete surprise. Keith Klein, the manager of the Richland office of the DOE, who had been making up this wonderful clean up plan that's back there on the wall and he didn't know that you guys in D.C. were planning to use some buildings in the 300 Area which is laden with uranium. He was stunned when he mentioned it at a meeting recently.

**Response to Commentor No. 2442**

**2442-1:** 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. Such ancillary documents need only be made available to the public prior to any decision being made under CEQ regulations (40 CFR Part 1505.1(e)). Nevertheless, DOE mailed 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.

**2442-2:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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. In full recognition of DOE's position to take expeditious action in regards to Hanford cleanup, 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. These activities include future waste management (as estimated in the Hanford Comprehensive Land Use Plan), tank waste remediation, K Basin spent nuclear fuel management, decommissioned naval reactor plant disposal, and Plutonium Finishing Plant Stabilization (see section 4.8.3.3). As shown in Table 4-173, the dose to the maximally exposed individual would be expected to remain well within regulatory limits. Based on an exposure period of 35 years, 0.21 (<1) latent cancer fatalities would be expected to occur among the local population over the 35-year period as a result of Hanford related radiation exposure. The cumulative impact assessment also determined that the incremental annual radiation dose to the maximum exposed public individual from the NI-PEIS proposed operations at FFTF and FMEF or RPL, including the impact of storing the 16 metric tons of heavy metal of spent FFTF nuclear fuel (see section 4.3.1.1.14) that would be generated in the 35 year nuclear infrastructure operation period, would be 0.0054 mrem. This assessment also determined that

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*Commentor No. 2442: Anonymous (Cont'd)*

**2442-6** — I also would like to say that the policies or lack thereof are the cause of the tremendous number of cancers we humans are suffering from. The governmental policies, the lack of health care, the fact that the corporations run rough shot over us in getting loopholes to protect us, that's all part of this whole scene.

**2442-7** — So those are my basic comments right now and I hope you get flooded of thousands of cards. I hope you take them all into consideration and I'm really sick of this, my third FFTF hearing. I'm sick of this. It has taken up a tremendous amount of time away from our efforts to get Hanford cleaned up.

*Response to Commentor No. 2442*

0.0045 latent cancer fatalities would be expected to occur among the local population as a result of the NI PEIS related radiation exposure over the 35 year period. Also note that in section 4.3.1.1.14, it is stated that upon cessation or reactor operation, or earlier, this spent fuel inventory would be shipped offsite to a geological repository for disposal. 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 would be expected in the same population.

**2442-3:** 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.

**2442-4:** DOE notes the commentor's views. 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. DOE could also 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.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2442: Anonymous (Cont'd)*

*Response to Commentor No. 2442*

**2442-5:** The commentor's concerns regarding the adequacy of the assessments of impacts associated with FFTF restart are noted. DOE has performed a detailed environmental analysis of the suitability of the potential restart of FFTF. The results of the impact assessments presented in Section 4.3 of the NI PEIS demonstrate the environmental suitability of restarting FFTF. Operation of FFTF would result in releases of materials to the environment via airborne and liquid pathways. However, all air emissions and wastewater discharge would be in accordance with applicable permit and regulatory requirements. The release of criteria air pollutants would result in concentrations well below Federal and state air standards (Table 4-13). The release of radioactivity and hazardous chemicals into the atmosphere would have a negligible effect on human health (Tables 4-17 and 4-19). There would be no discernible impacts to groundwater or surface water quality (Section 4.3.1.1.4) or to ecological resources (Section 4.3.1.1.6). The management of all wastes associated with restart and operation of the FFTF is addressed in Section 4.3.1.1.13 of the NI PEIS. It is DOE's policy that all wastes be managed (i.e., treated, stored and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders. The management of these wastes would be well within management capacities and would not be expected to adversely affect the environment. Impacts on people and ecological resources would be small. The generation of spent nuclear fuel from 35 years of FFTF operations would represent less than 1 weight-percent of the total spent nuclear fuel inventory presently stored at Hanford (Section 4.3.1.1.14). For the socioeconomic analysis, the PEIS includes the socioeconomic impacts of the Region of Influence, which is the area in which 90 percent of the Hanford workers live. This assessment looks at the impacts on population, housing, and public services. It also includes a broader evaluation of the Regional Economic Area, defined as those counties that will be economically impacted by actions at the Hanford site. All socioeconomic impacts are shown to be small. Section G.8 provides an in depth discussion of the impact assessment method. Hanford 300 Area facilities included in options under consideration for nuclear infrastructure activities are the Radiochemical Processing Laboratory (RPL) and Building 306-E (refer to Volume 1, Section 2.3.2.4 of the NI PEIS). These facilities have never been precluded from supporting future DOE missions. There are no current plans to close down the RPL. However, Building 306-E is listed in the 300 Area accelerated closure plan (300 Area Initiative), with closure activities scheduled to begin in May, 2003. If a decision were made to implement an alternative option that utilizes Building 306-E, the building would be removed

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2442: Anonymous (Cont'd)*

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from the list of facilities to be closed until its part of the activity were completed.

**2442-6:** The Department notes the concerns and views expressed in the comment.

**2442-7:** It is DOE policy to encourage public input on matters of regional, national and international importance as part of its commitment to facilitate a public participation process that is open and unbiased. In preparing the Final PEIS, DOE has assessed and considered both oral and written comments received on the Draft PEIS during the public comment period and has responded to these comments in the Final PEIS. Volume 3 of the NI PEIS contains public comments received on the NI PEIS and DOE responses to those comments. These comments are summarized, tabulated, and cross-referenced by commentor, category, and method of submission. A summary discussion is also provided of the overall prevailing issues raised during the public comment period.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2443: Anonymous**

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**2443-1** — You cannot even talk about having an Environmental Impact Statement, let's not even talk about all that at Hanford. You can't even talk about this without adequate clean up of the waste produced there. There is no detailed outline of how waste produced in your proposed thing will be dealt with and how much that will cost and where it will be.

**2443-2** — I haven't really read the whole thousand pages, but I don't need to. You should be embarrassed. Any person who is doing an EIS statement should be embarrassed of such an inadequate EIS statement. One other thing, EIS statements in general do not adequately consider the externalities and that includes people's health, environment, water, land and this is just no exception. This is just another waste of trees, basically.

**Response to Commentor No. 2443**

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**2443-1:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. Management of wastes that would be generated under implementation of Alternative 1, Restart FFTF, is discussed in Section 4.3 of Volume 1 (e.g., see Section 4.3.1.1.13). Section 4.3.1.1.13 was revised to clarify that, the Hanford waste management infrastructure is analyzed in this PEIS for the management of waste resulting from FFTF restart and operation. This analysis is consistent with policy and DOE Order 435.1, that DOE radioactive waste shall be treated, stored, and in the case of low-level waste, disposed of at the site where the waste is generated, if practical; or at another DOE facility. However, if DOE determines that use of the Hanford waste management infrastructure or other DOE sites is not practical or cost effective, DOE may issue an exemption under DOE Order 435.1 for the use of non-DOE facilities (i.e., commercial facilities) to store, treat, and dispose of such waste generated from the restart and operation of FFTF. In addition, Section 4.3.3.1.13 and 4.4.3.1.13 also address the potential impacts associated with the waste generated from the target fabrication and processing in FMEF and how this waste would be managed at the site.

**2443-2:** The NI PEIS is adequate. This NI PEIS has been prepared in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementation regulations (40 CFR Parts 1500 through 1508 and 10 CFR Part 1021), respectively. The environmental impacts of reasonable alternatives to fulfill the requirements of the missions were disclosed and evaluated in the NI PEIS. Further, DOE evaluated each environmental resource area in a consistent, unbiased manner across all the alternatives to allow a fair comparison among the various alternatives. This was accomplished through review and evaluation of site-specific information on the environmental conditions prevailing at ORR, INEEL, and Hanford to include a comprehensive analysis of the associated environmental and health risks of each alternative. DOE made every effort to obtain, analyze and disclose all required information to make a decision on expanding nuclear infrastructure.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2444: Anonymous*

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**2444-1** — How can you even think about doing more when we don't have materials that are capable of lasting the half life of what it's storing?

*Response to Commentor No. 2444*

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**2444-1:** The environmental impacts associated with managing the additional FFTF spent nuclear fuel at Hanford are discussed in Section 4.3 of Volume 1. As discussed in Section 4.3.1.1.14, the incremental impact associated with managing the additional FFTF spent nuclear fuel is extremely small and would have no discernible impact on the existing Hanford spent fuel management over NI PEIS evaluation period (see section 4.8.3.5 for cumulative impact). The currently used FFTF-specific spent nuclear fuel storage system designs (i.e., facility storage vessels and dry storage casks) are the key contributors for determining that the incremental radiological and environmental impacts are small. This section also states that the "spent [FFTF] nuclear fuel would be packaged in acceptable containers and shipped to a geologic repository for ultimate disposal." Disposal of DOE spent nuclear fuel is within the scope of a separate EIS titled, "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).

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2449: Anonymous**

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**2449-1** — I keep hearing 54 million gallons, 54 million gallons of concentrated hot garbage? I mean — I hope it's separated. I mean at least there's enough water in there to keep it from getting very hot. I mean that's what the water is for is to separate the atoms that are breaking down.

I mean there's just — 54 million gallons. This is only going to produce what, 8 barrels a year of waste? That's assuming that it doesn't have hot gloves, hot coveralls. I don't know what else, people who handle the material get exposed to. Hot boxes if they're in there separating the material out of the targets. There's going to be isolator boxes that people are working in and some of those are going to be exposed to other material and they can use it again and again. But you're also going to create a chemical separation facility and that's proposed to be built on buildings that are already hot.

You're already going to have to build another chemical separation facility to deal with those 54 million gallons. So you're going to build this great big chemical separation facility to pump lots of fluid into and separate it and put it into glass so that rather than being separated by little atoms of water, all this hot stuff that's separated by atoms of glass. I kind of like that idea a little bit.

**2449-2** — Should we get insurance on a 25-year-old nuclear reactor that somebody dropped a big part of it? A million dollars to repair the damage of one person overriding the safety features. A million dollars is nothing. I don't know. I think a million dollars is quite a bit and I hope they fixed it.

**2449-3** — But I hope they shut it down.

**Response to Commentor No. 2449**

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**2449-1:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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. Milestones for vitrification of the wastes from the high-level waste tanks are included in this agreement. As discussed in Section 4.3 of Volume 1, none of the proposed alternatives would add waste to the high-level waste tanks at Hanford.

**2449-2:** The incident referenced by the commentor occurred during construction testing in about 1978, prior to loading sodium or fuel into the reactor. As part of the testing, all of the In-Vessel Handling Machine (IVHM) safety systems were overridden which, coupled with an error in judgement by the test engineer, resulted in damage to the IVHM and a few baffle plates (which are outside of the core region). The baffle plates were repaired, and the damaged IVHM was replaced with the spare. Additionally, design changes were made to the IVHM to prevent this type of accident from reoccurring. Subsequent testing demonstrated full acceptability of these systems, which were successfully operated for more than 10 years without any indication of problems emulating from this construction accident. In retrospect, the design improvements that resulted from the incident actually increased the safety of IVHM operation.

**2449-3:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

## Comments from the Portland, Oregon, Public Hearing (August 29, 2000)

### Commentor No. 2453: Anonymous

**2453-1** — It was said that the risks from the Hanford — or from the fast flux restart would be from the processing, not from the irradiation. I have a problem believing that seeing how one of the major waste products is not even mentioned in this waste generation at Hanford, a handout that I received. It's footnoted as D and D says in part, "The inventory of bulk metallic sodium, Section 4.4.1.2.13 is not included because alternative sponsors and/or users will be found for its disposition." That seems kind of like a pipe dream to me, seeing how sodium, to the best of my understanding is a highly explosive material that explodes on contact with air.

I don't know anybody that would want to sponsor or use this material, especially in a radioactive form.

**2453-2** — As far as NASA, I don't trust NASA. I don't think they should get any uranium whatever. The Cassini probe which they sent out and flew around Jupiter came back at a high rate of speed and circled the earth at 300 miles above the earth's surface before continuing its journey. That Cassini space probe had the uranium on board and they estimated that the chances of it actually striking the earth if they made some error were only 1 in 100, so I don't think that NASA should be allowed any more uranium to play with.

**2453-3** — As far as the isotopes for curing cancer, I think that we should find another way besides restarting the fast flux reactor. According to what I heard the statement by Kitzhaber, there are other sources and it seems to me that the cure may be worse than the disease in this case because you may cure some individual cancers with the radioactive isotopes, but the radiation that is produced doing this will last for millions and millions and millions of years and probably or conceivably cause an incalculable number of additional cancers in other people. It seems a little selfish to insist on restarting a reactor that produces more harmful radioactive waste in order to fix a problem that has other sources of fixing. But anyway that concludes my statement. I'll yield back the remainder of my time.

### Response to Commentor No. 2453

**2453-1:** If FFTF is deactivated, a site integrated approach has been identified for disposition of the sodium coolant from FFTF. The FFTF sodium could be converted to sodium hydroxide and then used in the planned caustic washing high-level waste pretreatment process. In addition to reducing costs for both FFTF and the tank waste program, this would result in a major waste minimization and chemical recycling achievement. This planned use of the sodium is documented in the Tri-Party Agreement milestones (M-81-00 and M-20-00 series) that were established for deactivation of FFTF (currently in abeyance pending the final NI PEIS decision). If the planned use of the sodium for the tank waste program does not materialize, the sodium would be converted to a stable form suitable for land disposal at Hanford.

**2453-2:** DOE notes the commentor's opposition to NASA's use of nuclear materials for space missions. Through a Memorandum of Understanding with NASA, DOE provides radioisotope power systems, and the plutonium-238 that fuels them, for space missions that require or would be enhanced by their use. 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. The Cassini fly by occurred exactly as planned, with no release of nuclear material.

**2453-3:** Cancers are believed to be caused by a combination of hereditary and environmental factors, including radiological and chemical agents. In ongoing clinical testing, therapeutic radioisotopes have proven effective in treating cancers and other illnesses while minimizing adverse side effects, making their use an attractive alternative to traditional chemotherapy and radiation treatments. The NI PEIS provides an estimate of waste generation and potential human health impacts associated with each of the alternatives proposed for the production of medical, industrial and research. Any additional wastes generated in support of these missions would 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, regulations, and applicable DOE orders. In terms of potential human health impacts, the NI PEIS analysis indicates that the most likely impacts would not result in additional cancer fatalities among the population surrounding the DOE facilities that may be selected for use. The United States currently purchases approximately 90 percent of its medical radioisotopes from foreign producers, most notably Canada. However, Canada only supplies a limited number of economically attractive commercial isotopes (primarily molybdenum-99), and it

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)**Commentor No. 2453: Anonymous (Cont'd)**Response to Commentor No. 2453*

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

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2458: Anonymous*

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**2458-1** — ...FFTF should be closed.

**2458-2** — I mean it's deja-vu. We hear it tonight, over and over. Deja-vu. So I'm going to deja-vu to last year and read you from one of these handouts. It commences "To the Hanford Advisory Board" last month, "Dr. David Johnson, a physicist who worked on the FFTF nuclear reactor in the 1970s recommended against restarting the reactor. A specially designed accelerator would make more isotopes than the FFTF, but without the large number of wastes of — nuclear wastes, without the large costs and without the large safety issues. FFTF is incapable of producing a diverse and economical supply of medical isotopes." And I underline this, "The real purpose of the medical isotope proposal is revealed in a memo from ANMS, a contractor, once interested in running the nuclear reactor." This memo says, "Focus all PR efforts on the humanitarian mission of the FFTF. Medical isotopes and materials research. Do not mention" and this is in large print, "Do not mention any proposals for increasing reactor activity. The humanitarian mission must be highlighted and exploited to the maximum."

**2458-3** — Did you say that you had added another sixth alternative? Did I hear you say that?

**2458-4** — I think the whole thing should be cleaned up. We've had too much and everybody has heard it tonight and over and over and over again and we're all tired of it and I'm sure you're tired of it.

*Response to Commentor No. 2458*

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**2458-1:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

**2458-2:** DOE notes commentor's remarks.

**2458-3:** DOE has not added a sixth action alternative. However, if the No Action Alternative is included along with the 5 action alternatives, there are a total of 6 alternatives presented in the NI PEIS.

**2458-4:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2459: Anonymous**

**2459-1** — For years we have had hearings and from the first ominous rumblings of the idea of restarting the FFTF, the project has been plagued with controversy and unsavory manipulations first advanced by, you remember, the Advanced Nuclear Medical Systems. These were the folks that wanted to and I quote, “focus all immediate planning and PR effects on the humanitarian mission of the FFTF and do not mention any proposals for increasing reactor activity or future breeder reactor and the undeniable worthiness of the humanitarian mission must be highlighted and exploited to the maximum sensitivity of our society.”

You see, they succeeded. Here we are tonight in having everybody embroiled in an emotional debate over medical isotopes.

**2459-2** — . . . we are opposed to the restart of the FFTF for this mission [isotopes].

**2459-3** — The Department of Energy wrote to Senator Kennedy on December 22, 1995. A quote from that letter from DOE says, “The FFTF has not produced medical isotopes since 1990 and it is not necessary to DOE isotope production mission.” DOE’s ATR and HFIR provide most all of the DOE’s reactor based commercial and medical isotope production and they have significant additional capacity to produce isotopes well into the next century if future market demands development. And furthermore, in April 2000, your Medical Advisory Panel recommended against the use of FFTF for medical isotopes and their alternatives and purchase from Canada ought to be considered.

**2459-4** — The FFTF is a reactor in search of a mission and now they’ve tried tritium. That didn’t work. Now let’s consider plutonium-238. NASA will probably use other technologies for some of the missions and plutonium-238 is now available from Russia to purchase.

**2459-5** — What about the third proposal, to support civilian nuclear energy research and development activities? New nuclear fuel forms and new reactor designs. To me, this is the crux of the matter. The FFTF was built to support the development of the liquid metal fast breeder reactor program. Supposedly, that program was closed. But in an August 8, 2000 Environmental News Service, we find that the experimental breeder reactor 2 in Idaho has not yet been closed as Congress directed in 1994. Why isn’t it closed DOE?

In July 1999 officials also associated with the breeder reactor program in France and Japan showed an interest in maintaining the FFTF as a fast reactor research facility. What a coincidence. The nuclear industry is desperate to survive in spite of the fact that wind and solar energy development and aggressive conservation can and will meet energy demands.

**2459-6** — The industry lies outright to us, promoting nuclear as clean and ignoring the thousands of tons of spent fuel with no place to go and lethal forever.

Where is the detailed explanation of what happens to the spent fuel produced by FFTF?

**Response to Commentor No. 2459**

**2459-1:** DOE notes the commentor’s views and remarks.

**2459-2:** DOE notes the commentor’s opposition to Alternative 1, Restart FFTF.

**2459-3:** Subsequent to the time period of the letter noted by the commentor (i.e., 1995), DOE has sought independent analysis of trends in the use of medical radioisotopes, and of its role in this sector, consistent with its mandates under the Atomic Energy Act. In doing so, it established two expert committees. In 1998, an Expert Panel convened to forecast future demand for medical isotopes estimated that the expected growth rate of medical isotope use during the next 20 years will range between 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 DOE’s Nuclear Energy Research Advisory Committee (NERAC), established in 1999 to provide DOE with expert, objective advice regarding the future form of its isotope research and production activities. The growth projections were also adopted by DOE as a planning tool for evaluating the potential capability of the existing nuclear facility infrastructure to meet programmatic requirements. In the period since the initial estimates were made, the actual growth of medical isotope use has tracked at levels consistent with the Expert Panel findings. Section 1.2.1 of Volume 1 was revised to incorporate this information and to clarify DOE’s role in fulfilling the U.S. research and commercial isotope production needs. The conclusions presented in the NERAC Subcommittee for Isotope Research and Production Planning Final Report, April 2000 regarding the suitability of FFTF to produce research isotopes in a timely and cost efficient manner were made in the context of the facility producing research isotopes as its sole mission. It would not be cost effective to restart FFTF for the singular purpose of producing small quantities of various research isotopes. However, sustained operation of FFTF for the production of larger quantities of both research and commercial isotopes would be viable if operated in concert with producing plutonium-238 and conducting nuclear energy research and development for civilian applications. As the NERAC report states: “In limited instances, the DOE possesses unique resources, e.g., the high flux of fast neutrons and large irradiation volume in FFTF, that could be utilized for the production of some radioisotopes, but is best suited for commercial interests who might consider its use for isotope production.” In recognition of these constraints on its operational feasibility, the NI PEIS only evaluates the use of FFTF when coupled with the other stated missions. While some existing reactors may possess the potential capability or capacity to support research isotope production, as suggested in the NERAC report, it is unlikely that reliable, increased production of these isotopes to

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*Commentor No. 2459: Anonymous (Cont'd)*

Do not insult us either by saying that the amount is small and insignificant by Hanford standards. We will tolerate no more waste producing operations at Hanford. Our City Councils have said so. Our State legislatures have said so. Our Governor has said so and the people have said so. We are adamantly and unalterably opposed to more waste production at Hanford.

**2459-7** — We are even more so opposed to the use of HEU or MOX fuels. We will not tolerate that which is more than nuclear madness.

**2459-8** — We don't believe you have — sufficiently addressed the waste disposal issue, the fuel transport issue, the condition of the fuel stored to use, the real long term cost issues, the risk issues, the proliferation issues.

**2459-9** — The values of the people in this region, we want all attention to focus on the major dilemmas of the tank wastes in K basins and the mission of clean up.

*Response to Commentor No. 2459*

support projected needs could be accomplished without impacting the existing missions of these facilities. There currently is little room for growth of medical isotope production at either ATR or HFIR. At ATR the neptunium-237 targets for plutonium 238 production will compete for space in the reactor. There are potential negative impacts to the private company that leases reactor space for the production of radioisotopes due to being assigned less desirable irradiation space. At HFIR, the ability to expand medical isotope targets into additional reactor locations is limited by the potential impacts that the targets have on the primary experiments in the reactor. Medical isotope targets and neptunium-237 targets are not in competition for the same locations in at HFIR.

**2459-4:** Through a Memorandum of Understanding with NASA, DOE provides radioisotope power systems, and the plutonium-238 that fuels them, for space missions that require or would be enhanced by their use. In addition, under the National Space Policy issued by the Office of Science and Technology Policy in September 1996, and consistent with DOE's charter under the Atomic Energy Act, DOE is responsible for maintaining the capability to provide the plutonium-238 needed to support these missions. There are approximately 9 kilograms (19.8 pounds) of plutonium-238 in the U.S. inventory available to support future NASA space missions; no viable alternative to using plutonium-238 to support these missions currently exists. Based on NASA guidance to DOE on the potential use of radioisotope power systems for upcoming space missions, it is anticipated that the existing plutonium-238 inventory will be exhausted by approximately 2005. Without an assured domestic supply of plutonium 238, DOE's ability to support future NASA space exploration missions may be lost. DOE could purchase plutonium-238 from Russia; however, for supply reliability reasons and concern of nuclear nonproliferation, DOE's preference is to establish a domestic plutonium-238 production capability. Section 1.2.2 of Volume 1 was revised to further clarify the purpose and need for reestablishing a domestic plutonium-238 production capability to support NASA space exploration missions.

**2459-5:** Other than the missions discussed in the NI PEIS, no alternate uses for FFTF are being considered at this time. None of the alternatives in the NI PEIS include using FFTF to support the development of the liquid metal fast breeder reactor program. 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

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*Commentor No. 2459: Anonymous (Cont'd)*

*Response to Commentor No. 2459*

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. Further information on the need for nuclear energy research and development is provided in Section 1.2.3 of Volume 1.

- 2459-6:** 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.
- 2459-7:** The commentor's opposition to the use of HEU or MOX nuclear fuel in FFTF and nuclear technology is noted.
- 2459-8:** The NI PEIS addresses all issues identified by the commentor that are within its scope. These include waste disposal (Section 4.3.1.1.13), fuel transport (Section 4.3.1.1.11 and Appendix J), and human health risk Sections 4.3.1.1.9 and 4.3.1.1.10 and Appendixes H and I). Nuclear nonproliferation impacts of proposed actions are not required by NEPA and CEQ regulations to be included in a PEIS. However, DOE prepared a separate Nonproliferation Impact Assessment which is available on the NE web site (<http://www.nuclear.gov>) and in public reading rooms. That document assesses the potential nonproliferation impacts associated with nuclear infrastructure activities. A summary of it is included in Appendix Q of the final NI PEIS. Assessments of the costs associated with nuclear infrastructure activities are also not required by NEPA and CEQ regulations to be included in a PEIS. However, a cost report was issued separately by DOE, which is available at the same locations as the nonproliferation report. A

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*Commentor No. 2459: Anonymous (Cont'd)*

*Response to Commentor No. 2459*

summary is included as Appendix P of the final NI PEIS . Also not within the scope of the NI PEIS is, an assessment of the conditions of the MOX fuel stored at Hanford. This fuel is being maintained in a safe standby condition such that it could be utilized in the FFTF core if the FFTF Restart alternative were chosen for implementation.

**2459-9:** DOE notes the commentor's concerns regarding K Basin tank wastes and 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2462: Anonymous*

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**2462-1** — Why aren't you accessing your students and why aren't you accessing the knowledge that's out there to take care of these problems and to look for innovative ways to do it? I know there are a lot of people put work into this and I don't understand why it's not being used. I'm one of paranoia conspiracy people. I've Tesla and just on that note, I know it's a little freaky, but I don't understand why you don't apply those type of things in understanding and why you always ignore those capacities.

**2462-2** — So I guess I just wanted to say no [to restart]...

*Response to Commentor No. 2462*

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**2462-1:** DOE notes the commentor's interest in innovative technologies and human capabilities, which are outside the scope of this PEIS. The PEIS is required to evaluate a range of reasonable alternatives. Approaches and technologies that are considered innovative could, if promising, be examined in other government and private programs.

**2462-2:** DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

## Comments from the Portland, Oregon, Public Hearing (August 29, 2000)

### Commentor No. 2464: Anonymous

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**2464-1** — I have a suggestion. Maybe the DOE people and the Washington people should be the ones to speak last.

I liked that part. I just wanted to add that maybe everybody from Washington could be respectful of Oregonians. We try to when we go up there.

**2464-2** — What's the half life of the plutonium that's going to be created?

**2464-3** — Space Magazine was running an ad by one of the aerospace industries and the guy was saying our whole goal — and these people are talking to investors — our whole goal is to have our launches be as safe and as predictable as a truck driving down the road.

Now just recently we've had several truck accidents that caused major spills and killed fish and areas around here. So think about launching plutonium into space. Maybe we should start waiting a little bit until they are more safe than a truck. Has anybody considered this issue?

**2464-4** — What's going to happen when funding that is desperately needed to clean up Hanford that's been diverted to clean up — to keep FFTF running is now needed to feed people so that they won't be rioting in the streets?

Think about it. Here we've got plutonium being produced. We've got waste being produced. We've got Hanford lighting up and being on fire. Those tanks have got flammable liquids in them. Alone on their own merits they're toxic. Add radioactive waste to it and you're going to have the equivalent of nuclear bomb blasts going off and drifting down to wherever the wind is going. Think about it. It took humans 50 thousand years, give or take a few, to evolve. What's going to happen when we've got long life radioactive waste circulating in vast quantities than we've got it now?

**2464-5** — So I'm going to vote for the proposal that we just simply close down the FFTF.

### Response to Commentor No. 2464

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**2464-1:** DOE notes the commentor's views for the order of speaking position at DOE public hearings. The purpose of DOE's presentation at the Portland Oregon, public hearing and at all of the NI PEIS public hearings was to provide an overview of the Draft NI PEIS as a basis for facilitating relevant discussion and public input. Therefore, it is customary to present this background information before the start of the formal comment process. DOE works to ensure that the hearing format used serves to promote open and equal representation by all individuals and groups, regardless of the motivation for attending. One means used by DOE in trying to ensure equal representation at public hearings is by selecting the order of speakers through a random number drawing.

**2464-2:** Plutonium-238, the plutonium isotope intended for production in this EIS, has a half life of approximately 87 years.

**2464-3:** DOE notes the commentor's opposition to NASA's use of nuclear materials for space missions. Through a Memorandum of Understanding with NASA, DOE provides radioisotope power systems, and the plutonium-238 that fuels them, for space missions that require or would be enhanced by their use. 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.

**2464-4:** DOE notes the commentor's concerns regarding the high-level waste tanks at Hanford. The last Hanford underground waste storage tanks with organic loadings were recently removed from the Watch List indicating an explosion is no longer a credible accident. 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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 discussed in Section 4.3, Volume 1, no high-level radioactive waste would be added to the high-level waste tanks at Hanford. 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,

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2464: Anonymous (Cont'd)*

*Response to Commentor No. 2464*

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.

**2464-5:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2467: Anonymous*

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**2467-1** — Well, so I'm going to register against it [FFTF].

**2467-2** — If you need energy, Nevada has enough solar energy to power the whole West Coast, so there's biomass fuels, there's solar, wind energy. If you need alternatives, do you know what I mean? So there's alternatives.

*Response to Commentor No. 2467*

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**2467-1:** DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

**2467-2:** DOE notes the commentor's interest in alternative energy sources. Issues of research and development of alternative energy sources are beyond the scope of this Nuclear Infrastructure PEIS. Despite advances in many energy technologies, America's future energy security will depend on a robust mix of energy sources which necessarily includes nuclear power generation. It is the current United States policy that clean safe, reliable nuclear power continue as a viable component of the United States' energy portfolio. In recognition of this need, the government has initiated nuclear energy research and development programs to address potential long-term barriers to expanded use of nuclear power (e.g., nuclear waste, proliferation, safety, and economics) and to ensure that current nuclear power plants can continue to deliver adequate and affordable energy supplies. An enhanced DOE nuclear facility infrastructure is required to support such nuclear energy research and development for civilian applications.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2452: Jezreela Anderson**

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**2452-1** — I am horrified that we have not already learned our lessons from over 50 years of radioactive contamination.

I am horrified that we are wasting our time and your time, even considering restarting the FFTF when the government does not have the technology, funds or political will to clean up the current mess.

I think that the blue ribbon panel that recently came saying that it will never be cleaned up, I thought, okay, there it is, we're done. It's never going to be cleaned up, so they'll never have to consider making more mess, right? Because we know it's never going to be cleaned up adequately, so let's put everything we have into clean up and this issue will go away, but here I am. So obviously, it hasn't gone away.

**2452-2** — I do not believe that conversation tonight about restarting FFTF has anything to do with curing cancer. I believe it has everything to do with DOE and the U.S. military seeking something to do with all of the resources that we had basically siphoned off of our other programs for the last 50 years or more and put into the military industrial complex.

In the post-Cold War Era, the military industrial complex is looking for a purpose and what better purpose than curing cancer. And that's what this is really about. It's not about science. It's not about cancer. It's a big sham and it's really appalling.

**2452-3** — I support alternative 5. I believe that FFTF should never be restarted, that the area should be cleaned up.

**Response to Commentor No. 2452**

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**2452-1:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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.

**2452-2:** 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. The NI PEIS evaluates a range of reasonable alternatives for accomplishing the proposed action, one of which includes use of FFTF. 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.

**2452-3:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF, and opposition to Alternative 1, Restart FFTF.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2476: Elizabeth Atly*

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**2476-1** — I think we should clean up Hanford and close it down. We don't need any more of this kind of pollution. I believe that Hanford has caused more cancers than possibly could be cured by the isotopes that are being proposed.

**2476-2** — So shut it [FFTF] down.

*Response to Commentor No. 2476*

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**2476-1:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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.

**2476-2:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2480: Paul Beck**

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**2480-1** — My confidence is very low. My ignorance is my burden and I guess that's what I need to work on, but just in the outset, being part of the ignorant masses, I don't see how we can continue to go on with what they're proposing if we can't keep in order what we already have [at Hanford]. And it seems to me it needs at least stopped at the very base so we can reconsider some alternatives as one angry gentleman had stated earlier.

**Response to Commentor No. 2480**

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**2480-1:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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 can be operated safely to accomplish the stated missions. The environmental impacts associated with operation of the FFTF and support facilities at Hanford during normal operations and from postulated accidents are presented and discussed in Section 4.3 of the NI PEIS. All impacts to human health and to ecological resources would be small in the immediate area of the Hanford Site and negligible at all distant locations.

## *Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2420: Mary Lou Blazek**  
**Oregon Office of Energy**

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**2420-1** — And the Oregon Office of Energy just concluded 20 focus groups with the help and support of DOE to gain additional public input on the programmatic environmental impact statement. The process we designed was to encourage dialogue to get further Oregon input on the question of FFTF restart. Participants were chosen to represent a broad variety of backgrounds and interests. A high percentage of the participants who participated in the groups have reviewed the environmental impact statement summary and a few participants have reviewed part or all of the environmental impact statement. We are compiling the results of the opinions expressed by 76 participants in six communities into a report. The results, along with participant questions and concerns, will be forwarded to DOE.

It should be noted that this public involvement process was an informal sampling. We did not use traditional academic methods to select focus group participants. One group was selected at random by a market research firm. The remaining participants were chosen to provide a broad cross section of interests and approaches to issues.

We do not suppose that this process represents views of all Oregonians. We do believe the diversity of those involved in the discussion fairly represents a broad spectrum of opinion and gave the Oregon Office of Energy and will give DOE valuable insight into FFTF issues that concern Oregonians.

The Oregon Office of Energy staff prepared six opinion statements designed to gain specific public input on the environmental impact statement alternatives and cost information. The statements were designed to address issues raised in the Oregon Office of Energy scoping comments and to answer the questions on which DOE is seeking comment.

The following findings reflect the highest percentage of responses for each opinion.

The programmatic environmental impact statement demonstrates a compelling for all proposed missions. Sixty percent of the participants disagreed.

The programmatic environmental impact statement contains sufficient information to determine the best alternative. Forty-seven percent disagreed.

DOE should pursue alternative methods for meeting the missions. Eighty-one percent of the participants agreed.

DOE should identify the best alternative for each mission separately. Eighty-six percent of the participants agreed.

The public should have early access to cost analysis and nonproliferation study. Eighty-five percent agreed.

**Response to Commentor No. 2420**

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**2420-1:** DOE notes the preliminary results stemming from community focus group polling compiled by the Oregon Office of Energy, Nuclear Safety Division. All comments documented in the Oregon Office of Energy report, "The Oregon Approach: Involving the Public in DOE's Nuclear Infrastructure Proposals Including Use of the Fast Flux Test Facility," dated September 2000, have been responded to in the final NI PEIS (see Commentor No. 2019).

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2420: Mary Lou Blazek (Cont'd)*

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We then asked the participants to choose an option that best supported their views.

Restart FFTF received 18 percent of the opinion.

Inadequate information to make a decision, 33 percent.

Shut down the FFTF reactor and use other facilities and shut down FFTF reactor were 45 percent of the participants we polled and only 4 percent did not answer. We'll be completing this report and providing it to DOE within the next two weeks.

*Response to Commentor No. 2420*

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*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor: Earl Blumenauer  
U.S. House of Representatives, OR*

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The oral comments were submitted in written form and are addressed in the responses to Commentor No. 210.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2473: Jay Bodzon**

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**2473-1** — Leaving aside for the moment the ethical debates over the value of democracy in today's society, it seems critical that the public be permitted an active role in its decision making process such as this one. It is a sad fact of our political life though that in these complex times this means people will sometimes be deciding issues on which they have relatively little understanding. This necessarily opens this up to the potentials for rule by mob paranoia and hysteria.

I am a senior nuclear reactor operator at a local nuclear research facility and I feel safer handling radioactive and highly reactive fuel than I do expressing a pro-nuclear sentiment in that room.

That said, I don't know whether or not the Fast Flux Test Facility should be reopened. It seems that there are compelling arguments on both sides. I do know that medical isotopes present a miracle of science and we would be fools not to pursue them and that space exploration is truly the highest aspiration of our human achievement. Anything that furthers these developments is, in my opinion, worthwhile, but I think it is far more important that we allow these decisions to be made by public opinion, but an informed public opinion. Institutional causes of public ignorance are a daunting problem which I can't even begin to get into right now, but if we are to continue having meetings like this and be taken seriously, it is important that people be informed on the issues that they're commenting and not driven by stories and sound bytes.

**Response to Commentor No. 2473**

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**2473-1:** DOE notes the commentor's views including the need for education as a prerequisite for informed public participation. It is DOE policy to encourage public input on matters of regional, national and international importance as part of its commitment to facilitate a public participation process that is open and unbiased. In doing so, DOE has established reading rooms near DOE sites to provide easy access to information about DOE programs and encourages the use of this source of information. Further, DOE has numerous web sites, including one for NE (<http://www.nuclear.gov>), that provide up-to-date-information complete with fact sheets, news releases, and other materials. 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.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2493: Matthew Brener*

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**2493-1** — I would just like to make this point to say that I am in favor of the mission that was laid out in this document that says that they need the isotopes and they need the plutonium. I support that entirely. I support whatever program that the DOE thinks would be the most, would be the best to carry out that mission, to get the isotopes and to make the plutonium-238. The most — the best and cost effective. If that's starting up the FFTF, I'm all for it. If there's a better way to do it, I'm all for that.

I would like the FFTF started up for research purposes to develop and to test and to have more information on the sodium aspect of it, liquid sodium reactor.

*Response to Commentor No. 2493*

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**2493-1:** DOE notes the commentor's support for its missions as stated in the NI PEIS, and for their support for Alternative 1, Restart FFTF.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2486: Kelly Caldwell*

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**2486-1** — I think that it [ NI PEIS] doesn't adequately address, in particular, cleanup of the materials that will be generated. I mean not to mention all the existing cleanup issues. It doesn't adequately document how anything that will be created in the future will do with cleanup. And that's completely unacceptable.

*Response to Commentor No. 2486*

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**2486-1:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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. 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.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2475: Chris Carbine*

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**2475-1** —...I wanted to thank Colette Brown and the Department of Energy for being courageous enough and open minded enough to gather information from the people that this affects.

**2475-2** — I don't know enough information either about the process of what's involved, but I do know that I favor progress and I favor searching other alternatives, the possibility of looking to those who are already producing the isotopes and can we get them to produce enough to help us out, you know.

**2475-3** — There seems to be a strong sentiment about Hanford cleanup and I agree that's necessary and important ...

*Response to Commentor No. 2475*

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**2475-1:** DOE notes the commentor's support of the public participation process.

**2475-2:** 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 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

**2475-3:** DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing Hanford cleanup activities are high priority to DOE. Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2455: Katherine Chuttie*

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**2455-1** — I add my voice to those who tonight call for deactivating the FFTF and created no new missions.

*Response to Commentor No. 2455*

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**2455-1:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor: Michael Contini  
National Association of Cancer Patients*

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The oral comments were submitted in written form and are addressed in the responses to Commentor No. 1700.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2434: Stephen Curley**

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**2434-1** — And there is uranium-238 in the ground at Hanford and it is leaching into the groundwater right now. You folks from Richland, you folks have a vested interest in this whole program. The start up is your salaries. It's your pensions. It's your jobs. It's your economy. It depends on it.

If I was up there, I'd probably be down here speaking for the darn thing too. Dr. Kitzhaber, our fine Governor, is a doctor. Vera Katz, the Mayor here in Portland, City Council, Brian Baird up in Washington, Ron Wyden, they're all against this start up. There is goo up there in Hanford. Lots of goo. It's the most toxic goo on this planet. It's up there at Hanford. I think you folks are familiar with that.

This is not just cow poop that you can just wash off of your arm if you get some cow poop on your arm. This toxic goo, we really don't know how to store. It's leaking and it's heading toward the second largest river in the United States, that would be the Columbia River.

It's leaking towards Umatilla. It's leaking towards the Dalles. It's leaking Hood River, Portland and then Astoria.

Do you want to water your crops with this goo, with this goo water?

Do you want to eat the fish that lives in this toxic goo water? Or throw the ball for your dog to go fetch in the Columbia, like I do with my little dog who has a tumor on her adrenal gland. Who knows where that came from?

Or maybe even windsurf in this toxic goo. I don't think you do because I know I don't. I don't think you want to drink this toxic goo water.

Clean up your toxic, deadly mess.

**Response to Commentor No. 2434**

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**2434-1:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2479: Jamaica Daras*

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**2479-1** — All I'd really like to say is that I am a 22-year-old student and that basically my generation has been handed what the previous generations have created and couldn't stop and that is an environment and a home that is close to utter chaos and as I look around me as the next generation who is to step up and to come into power, I'd just like to say it's frustrating to be handed such a pile of #\*\$! and to say now you have to fix your home and my home and the home of those around you and the home of the rest of the globe that are around you because basically we endure this human endeavor together and maybe this is one small corner and pocket of the world, but it is the point that a change needs to occur due to the fact that the way that we have been doing things hasn't produced a better environment and a better home.

*Response to Commentor No. 2479*

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**2479-1:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2490: Betty Davenport*

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**2490-1** — I am in support of restarting FFTF for the production of medical isotopes. I feel it's unconscionable for a group of people to suppress technology that can save thousands and thousands of lives.

**2490-2** — Much of the testimony that we've heard here in Hood River and in Portland evolves around false information. They feel that this is going to put more waste into the river when they don't seem to understand that FFTF is three miles away from the river and 20 miles away from the wartime reactors which has caused the leaking, the problem of pollution.

They don't seem to understand that whether or not FFTF started, it's not going to change the amount of funding relegated to the cleanup. I implore you to please make a decision based on facts, not through rhetoric that we've been hearing. I understand people fear what they don't know, but they just aren't willing to listen and visit the site and understand things.

*Response to Commentor No. 2490*

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**2490-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF.

**2490-2:** DOE notes the commentor's views and observations. 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.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2466: Les Davenport*

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**2466-1** — In terms of going to each other's meetings, I'd like to point out that the Richland meetings are well attended, in particular by Seattlites and some Oregonians. The last meeting a year ago we had about a third of the people there that came to speak in opposition to the FFTF. Why can't we attend your meetings if you attend ours or if you're going to keep Washingtonians out, you better start with the Heart of America Northwest.

The additional oral comments were submitted in written form and are addressed in the responses to Commentor No. 1788.

*Response to Commentor No. 2466*

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**2466-1:** DOE notes the commentor's views and observations. It is DOE policy to encourage public input on matters of regional, national and international importance as part of its commitment to facilitate a public participation process that is open and unbiased.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2456: Vera Defoe**

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**2456-1** — This one, of course, we're supposed to address the draft environmental impact statement so I will do that and say, of course, that I support alternative 5.

**2456-2** — Many people spoke tonight with quite a lot of emotion and didn't actually address the EIS and I'm hoping that it was obvious that they were supporting alternative 5 if they would so be counted. I don't know how you tally it up, but then again, of course, this is not some sort of an election, how many votes for or against are going to matter anyway. I sort of wonder whether it even matters if we're here at all because of course this is one of the steps you have to do in the whole NEPA process.

**2456-3** — Nonetheless, I will say what I said the last time I was at one of these hearings which is no. Don't do it [startup].

**2456-4** — There can't be any other reason here. They've created this massive, massive amount of contamination, pollution. They seem unable to clean it up. It's leaking with increasing speed into the Columbia River. Everybody thinks it's a pretty big river and spread out and it probably doesn't matter all that much, but it does matter.

**Response to Commentor No. 2456**

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**2456-1:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF, and opposition to Alternative 1, Restart FFTF.

**2456-2:** Comment noted. DOE is committed to providing the public with comprehensive environmental reviews of its proposed actions in accordance with NEPA, and holding public hearings is an essential and required part of the NEPA process. In preparing the Final PEIS, DOE has assessed and considered both oral and written comments received on the Draft PEIS during the public comment period and has responded to these comments in the Final PEIS. Volume 3 of the NI PEIS contains public comments received on the NI PEIS and DOE responses to those comments. These comments are summarized, tabulated, and cross referenced by commentor, category, and method of submission. A summary discussion is also provided of the overall prevailing issues raised during the public comment period. 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.

**2456-3:** See response to comment 2456-1.

**2456-4:** DOE notes the commentor's concerns regarding the migration of contaminants 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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.

## Comments from the Portland, Oregon, Public Hearing (August 29, 2000)

### Commentor No. 2438: Barbara Drageux Women's International League for Peace and Freedom

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**2438-1** — I would like to express my opposition and the opposition of Women's International League for Peace and Freedom, Portland Branch, to the restart of the Fast Flux Test Facility at Hanford Nuclear Reservation.

**2438-2** — While we have not been given the facts about how much plutonium-238 NASA requires for its proposed space missions, we have learned that the need is little more than the United States already has on hand. The rest can easily be obtained from Russia through the agreement we have with that nation at close to the cost of keeping FFTF on hot standby for two years.

**2438-3** — The additional benefit would be that of keeping weapons-grade plutonium out of circulation.

**2438-4** — We understand that the FFTF is 25 years old and believe that in the Year 2000 when our personal computers need to be updated almost annually, FFTF can hardly be capable of operating adequately and economically. The cost of bringing it up to Year 2000 standards would be prohibitive and constitute a supreme disregard for those who are paying the bill.

**2438-5** — The Department of Energy has a commitment to clean up Hanford, including some of the facilities proposed for the plutonium-238.

How can you suggest that the DOE budget be spread even further, just reducing the dollars available for cleaning up the mess left so irresponsibly by the nuclear programs of the United States?

**2438-6** — How can a plan [restart FFTF] that will increase high level nuclear waste be justified?

### Response to Commentor No. 2438

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**2438-1:** DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

**2438-2:** DOE notes the commentor's concern about NASA's need for plutonium 238 for space missions. Through a Memorandum of Understanding with NASA, DOE provides radioisotope power systems, and the plutonium 238 that fuels them, for space missions that require or would be enhanced by their use. In addition, under the National Space Policy issued by the Office of Science and Technology Policy in September 1996, and consistent with DOE's charter under the Atomic Energy Act, DOE is responsible for maintaining the capability to provide the plutonium-238 needed to support these missions. There are approximately 9 kilograms (19.8 pounds) of plutonium-238 in the U.S. inventory available to support future NASA space missions. Based on NASA guidance to DOE on the potential use of radioisotope power systems for upcoming space missions, it is anticipated that the existing plutonium-238 inventory will be exhausted by approximately 2005. Without an assured domestic supply of plutonium 238, DOE's ability to support future NASA space exploration missions may be lost. DOE could purchase plutonium-238 from Russia; however, for supply reliability reasons and concern of nuclear nonproliferation, DOE's preference is to establish a domestic plutonium-238 production capability. Section 1.2.2 of Volume 1 was revised to further clarify the purpose and need for reestablishing a domestic plutonium-238 production capability to support NASA space exploration missions.

**2438-3:** The plutonium-238 which NASA uses as an electric power source for deep space missions is not used in nuclear weapons. Therefore, purchase of plutonium-238 from Russia would not keep weapons grade plutonium out of circulation.

**2438-4:** As stated in EIS 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. 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. The separate cost report accounts for costs associated with expected FFTF facility modifications. 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

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2438: Barbara Drageux (Cont'd)**  
**Women's International League for Peace and Freedom**

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**Response to Commentor No. 2438**

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intent of commercial nuclear safety regulations for equivalent facilities. In the event that FFTF restart is selected in the Record of Decision, a new Safety Analysis Report, including a Probabilistic Risk Assessment (PRA), will be prepared and it will address any changes in plant configuration, operating conditions and procedures. The revised safety analyses will be subjected to a thorough independent review process.

- 2438-5:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.
- 2438-6:** As identified in Section 4.3.1.1.13 of the NI PEIS, the restart of FFTF would generate about 63 cubic meters of additional radioactive waste (e.g., solid low-level radioactive waste) annually, in addition to nonhazardous wastes. This would account for about 2,205 cubic meters of additional radioactive waste to be generated over the 35-year period of nuclear infrastructure operations and is small in comparison to the waste generated by current Hanford activities. High-level radioactive waste would not be generated from merely operating FFTF. It is DOE's policy that all wastes be managed (i.e., treated, stored, and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders. The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed action for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2460: Andrew Eisman*

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**2460-1** — It's totally absurd that we are talking about this. How can any intelligent person be talking about the creation of more nuclear waste?

I cannot understand it.

*Response to Commentor No. 2460*

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**2460-1:** DOE notes the commentor's concern regarding the generation of wastes. The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed action for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision. The waste generated from any of the proposed alternatives in the NI PEIS will be managed (i.e., treated, stored, and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2487: Shamu Fenervesia**

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**2487-1** — I'm for Alternative 5 against — for the recommissioning of the FFTF.

**2487-2** — I think it's a terrific misappropriation, a misuse of funds considering where the cleanup is at and I think that money and that effort should be spent on cleanup.

**2487-3** — I think there's an inadequate address of waste generation and other issues in the PEIS.

**Response to Commentor No. 2487**

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**2487-1:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF, and opposition to Alternative 1, Restart FFTF.

**2487-2:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

**2487-3:** In the NI PEIS, DOE has evaluated each environmental resource area in a consistent, unbiased manner across all the alternatives to allow for a fair comparison among the various alternatives. This was accomplished through review and evaluation of site-specific information on the environmental conditions prevailing at ORR, INEEL, and Hanford to include a comprehensive analysis of the associated environmental and health risks of each alternative, including 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.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2468: Ken Ferguson*

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**2468-1** — I'm in complete favor of complete deactivation of FFTF. Shut it down. It's old, unsafe. It's expensive. It detracts from and is contrary to Hanford's mission of clean up.

*Response to Commentor No. 2468*

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**2468-1:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF. 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. 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.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2431: Len M. Ford*

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**2431-1** — I also want to speak in favor of Alternative 5.

**2431-2** — Even so, given the other problems of Hanford, given the fact you fired two people last week for falsifying and creating safety records on this reactor, given the stories about releases from the fire which changed almost as fast as the winds did out there, even so, the fact that under the most terrible assessments the total failure, inability to come anywhere close to even what the Department of Energy has stated they would try to do as far as cleanup, you know, most notably recently with the debacle with the BNFL and the vitrification plant, they're so far behind with that to expect to be trusted with anything remotely close to this is just, you know, I guess you should be a martyr for audacity.

*Response to Commentor No. 2431*

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**2431-1:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

**2431-2:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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. In regards to the Hanford wildfire of 2000, the DOE Richland Operations Office, the State of Washington Department of Health, and U.S. Environmental Protection Agency performed environmental monitoring on and around the Site to assess potential radiological impacts. The wildfire did not cause a release of radioactive materials from any Hanford facilities but did result in resuspension of radioactive materials which were already in the environment. The very low levels of radioactive materials that were resuspended were slightly above natural background levels and required several days of analysis to quantify. Information on this event has been made available to the public and can be accessed at <http://www.Hanford.gov/envmon/indes.html>. This site also provides a link to information on the independent offsite air monitoring that was conducted by the U.S. Environmental Protection Agency.

## Comments from the Portland, Oregon, Public Hearing (August 29, 2000)

### Commentor No. 2432: Joyce Fullington

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- 2432-1** — Thank you for listening to Oregonians tonight and to consider my testimony to see the closure of the FFTF as an alternative course of action.
- 2432-2** — I would like to register my no vote regarding the start up of the FFTF.
- 2432-3** — The PEIS has revealed nothing that convinces me that the FFTF is needed.
- 3432-4** — We, the people, were given promises by the DOE in 1995 that they would shut down the FFTF and used the money saved for high priority cleanup. Instead, the DOE has spent over \$100 million of cleanup money to keep FFTF on hot standby.
- It is time to return to the initial mission and close the FFTF and focus on cleanup of Hanford.
- Most of us know that Hanford's high level nuclear waste tanks are leaking radioactive waste into the groundwater, close to the Columbia River.
- The cleanup must be our first priority.
- We are living at a time of prosperity and if we don't clean up Hanford now, it won't get done. It is our moral duty to each of our children to do nothing that diverts our attention from the clean-up of Hanford.
- In my visit to Hanford one year ago, I saw environmental disaster after environmental disaster as I visited the K-basins, stood on the shores of the Columbia where the stench of 90 leaks into the river every day, saw the tank farms that are leaking and in danger of explosion and saw the frustration of workers who admit there's not much that they understand about cleaning up this mess at Hanford in regards to the K-basins and so forth.
- 2432-5** — It is wrong to create more high level radioactive waste at the FFTF as we cannot contain the waste at Hanford now and we have no technology yet to permanently and safely store our nuclear waste.
- 2432-6** — My understanding is that NASA has stated that they have no need to purchase Pu-238 for the space missions at this time and yet this has been used to justify the restart of FFTF for about 90 percent of the mission. Thus, I feel this is not a reason to start FFTF.
- 2432-7** — It has been stated that 10 percent of the time and money spent on FFTF start up would be for medical isotopes. However, medical isotopes would be produced for much less money if an accelerator was built
- 2432-8** — . . .this option [accelerator] would be safer due to the ability of an accelerator to shut down immediately.

### Response to Commentor No: 2432

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- 2432-1:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF, and opposition to Alternative 1, Restart FFTF.
- 2432-2:** See response to comment 2432-1.
- 2432-3:** 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. The NI PEIS evaluates a range of reasonable alternatives for accomplishing the proposed action, one of which includes use of FFTF. Section 1.2 of Volume 1 was revised to clarify the purpose and need of the proposed action.
- 2432-4:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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. A Tri-Party Agreement change was made to place the milestones for FFTF's permanent deactivation in abeyance until the DOE reaches a decision on whether the facility will be used to meet mission needs. Prior public meetings were held on this formal milestone change. FFTF restart would not impact ongoing cleanup missions at Hanford. Hanford tank waste issues are not within the scope of this PEIS. Implementation of the alternatives described in Section 2.5 of Volume 1 would not add waste to the high-level waste tanks at Hanford. 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,

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2432: Joyce Fullington (Cont'd)*

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**2432-9** — Also, the production of high level radioactive wastes would not be produced [in accelerators] such as in the FFTF.

**2432-10** — In addition, DOE's experts from the Subcommittee for Isotope Research and Production Planning concluded that FFTF was not a viable source for medical research isotopes. The Washington State Medical Association says there's no need for FFTF as an additional source of isotopes.

**2432-11** — Medical history tells us that there was a time in recorded history where there were no cancers. John Gothen has recently produced two new books showing that many forms of radiation are causing cancers including breast cancer and ischemic heart disease.

**2432-12** — You said in your presentation that the risk to the public and workers are highest if there's accidents by air or by land transport. You said the risk is less than background levels for radiation. That doesn't make sense. The person that's involved in that plane crash or that truck crash or the shipping accident has a much greater background radiation risk. Accidents have happened at the FFTF. The workers of Hanford have been sprayed with americium and have been victims of accidents.

I say let's not take the risks to public and to the workers.

*Response to Commentor No. 2432*

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implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

**2432-5:** As identified in Section 4.3.1.1.13 of the NI PEIS, the restart of FFTF would generate about 63 cubic meters of additional radioactive waste (e.g., solid low-level radioactive waste) annually, in addition to nonhazardous wastes. This would account for about 2,205 cubic meters of additional radioactive waste to be generated over the 35-year period of nuclear infrastructure operations and is small in comparison to the waste generated by current Hanford activities. High-level radioactive waste would not be generated from merely operating FFTF. It is DOE's policy that all wastes be managed (i.e., treated, stored, and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders. The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed action for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision.

**2432-6:** A May 22, 2000, correspondence from NASA to DOE identified that NASA no longer has a planned requirement for small radioisotope thermoelectric generator (SRTG) power systems. This does not mean that NASA no longer requires DOE to provide the necessary plutonium 238 to support deep space missions. Rather, the suspension of SRTG development efforts was conducted in order to permit reprogramming of funds to support development of a new radioisotope power system based on a Stirling technology generator. This new radioisotope power system, referred to in the subject correspondence, requires 1/3 less plutonium as its fuel source. However, the Stirling technology is developmental and NASA has requested in a September 22, 2000 letter to DOE that the plutonium-238 needed for large RTG may be maintained as a backup. 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.

**2432-7:** DOE notes the commentor's views. As identified in the Cost Report, the listed cost for each alternative is, by itself, not sufficient information to provide a mission decision. Each of the irradiation facility alternatives under consideration can meet various portions of DOE's identified need for expanded isotope production and nuclear research and development. The capability of

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2432: Joyce Fullington (Cont'd)*

*Response to Commentor No. 2432*

each irradiation facility to support the proposed expanded mission areas would determine the extent that DOE would be able to meet its stated objectives. For example, the low-energy cyclotron is sized to produce moderate quantities of diagnostic isotopes, biomedical tracers, and a few types of therapeutic isotopes. Because of the 200 MeV energy threshold required for neutron spallation, the low-energy cyclotron cannot produce neutrons for the production of the neutron-rich isotopes which make up the bulk of the therapeutic market. FFTF has the largest target volume of the alternatives under consideration for the production of isotopes. It also has a high flux and flexible neutron spectrum suitable for large scale production of both diagnostic and therapeutic isotopes. Each facility has its own technical advantages and disadvantages. The relative capabilities of each alternative, the degree to which each alternative satisfies policy and programmatic objectives, as well as the relative cost of alternatives will be factors in the Record of Decision.

**2432-8:** Nuclear reactors and accelerators will shut down immediately when the electrical power is removed.

**2432-9:** See response to comment 2432-5.

**2432-10:** The conclusions presented in the NERAC Subcommittee for Isotope Research and Production Planning Final Report, April 2000 regarding the suitability of FFTF to produce research isotopes in a timely and cost efficient manner were made in the context of the facility producing research isotopes as its sole mission. It would not be cost effective to restart FFTF for the singular purpose of producing small quantities of various research isotopes. However, sustained operation of FFTF for the production of larger quantities of both research and commercial isotopes would be viable if operated in concert with producing plutonium-238 and conducting nuclear energy research and development for civilian applications. As the NERAC report states: "In limited instances, the DOE possesses unique resources, e.g., the high flux of fast neutrons and large irradiation volume in FFTF, that could be utilized for the production of some radioisotopes, but is best suited for commercial interests who might consider its use for isotope production." In recognition of these constraints on its operational feasibility, the NI PEIS only evaluates the use of FFTF when coupled with the other stated missions. While some existing reactors may possess the potential capability or capacity to support research isotope production, as suggested in the NERAC report, it is unlikely that reliable, increased production of these isotopes to support projected needs could be accomplished without impacting the existing missions of these facilities. Currently, approximately 50 percent of DOE's isotope

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2432: Joyce Fullington (Cont'd)*

*Response to Commentor No. 2432*

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

**2432-11:** The commentor's concern about cancer rates is noted. Cancers are believed to be caused by a combination of hereditary and environmental factors, including radiological and chemical agents. Statistics from the National Cancer Institute indicate that the rate of cancer incidence and the rate of cancer mortality has dropped during the 1990's [NCI webpage (as of 10/19/2000) - <http://cancernet.nci.nih.gov/statistics.shtml> article entitled "Cancer Death Rate Declined in the 1990s for the First Time Ever"]. A survey sponsored by the National Cancer Institute and published in the Journal of the American Medical Association in 1991 (JAMA 1991:1403-1408) detected no general increase in the risk of cancer death for people living in 107 counties adjacent to or containing 62 nuclear facilities. The Hanford Site, Idaho National Engineering and Environmental Laboratory, and Oak Ridge Reservation were included in the survey. The study used cancer mortality data from Benton, Franklin, and Grant Counties in the survey for the Hanford Site (See Section 3.4.9.3 of Volume 1). This PEIS has provided an estimate of the incremental potential human health impacts associated with a reasonable range of alternatives (including the restart of FFTF) for the production of isotopes for medical uses, research and development, and as heat sources for radioisotope power systems. The methodology used is intended to provide realistic results based upon our current knowledge of the health impact of low doses of radiation. Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that would be expected to result from implementation of 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.

**2432-12:** DOE notes the commentors concern about the risks to the public and workers. The NI PEIS transportation activity with the highest risk is the air shipment of medical isotopes. The analysis conservatively assumes that every isotope

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2432: Joyce Fullington (Cont'd)*

*Response to Commentor No. 2432*

shipment is by air, and that each shipment requires an intermediate stop, for a total of about 500 shipments per year. The risk to the public from these shipments is far lower than the risk from background radiation. However, the risk from this transportation is in addition to the risk from background radiation. The NI PEIS analysis, summarized in Table J-7, shows that it is unlikely that the transportation activities covered by the NI PEIS will cause an additional latent cancer fatality. This risk is very small. For comparison, as discussed in section H.2.1.2 of the NI PEIS, the risk to a population of 100,000 people exposed only to natural background (0.3 rem per year, not including any manmade or Hanford-related sources) would be 15 latent cancer fatalities per year. Over the 35 year NI PEIS period, this would equate to 525 cancer fatalities.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2451: Patrick Garten*

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**2451-1** — People haven't spoken much about the particular reactor and the particular type reactor and how unusually dangerous it is. I consider this a menace, even without its nuclear core.

Just the cooling system alone is an incredible environmental menace and it is both extremely expensive and extremely dangerous to maintain this condition

**2451-2** — . . .some other things about the time frame of the radioactive waste at Hanford, both that's likely to be produced. The FFTF, if you restart it and the stuff that's already there which is just incredible in its dangerousness and its lifespan. A lot of it is going to be around further into the future than our history of the past.

**2451-3** — It's an extremely emotional issue for me and I think it's ridiculous you keep calling us back here and I think it's a big show that you come and you listen to our comments and we say no and you come back a few months, a few years later and you say we're thinking of doing this again, different reason.

*Response to Commentor No. 2451*

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**2451-1:** The FFTF meets all safety requirements established by DOE and the DOE requirements are consistent with those established and applied by other regulatory agencies such as the Nuclear Regulatory Commission. Analyses presented in the PEIS show that the risks associated with operation of the FFTF are extremely small, see Section 4.3. The FFTF operated safely and successfully from the time it started in 1980 until April 1992, when it was shutdown for a refueling outage. It has been safely maintained in a standby condition since that time. If a decision is made to restart FFTF, the status and condition of all safety systems will be addressed and appropriate action taken, as necessary, prior to startup to assure safe operation.

**2451-2:** As identified in Section 4.3.1.1.13 of the NI PEIS, the restart of FFTF would generate about 63 cubic meters of additional radioactive waste (e.g., solid low-level radioactive waste) annually, in addition to nonhazardous wastes. This would account for about 2,205 cubic meters of additional radioactive waste to be generated over the 35-year period of nuclear infrastructure operations and is small in comparison to the waste generated by current Hanford activities. High-level radioactive waste would not be generated from merely operating FFTF. It is DOE's policy that all wastes be managed (i.e., treated, stored, and disposed) in a safe and environmentally protective manner and in compliance with all applicable Federal and state laws and regulations and applicable DOE orders. The NI PEIS addressed the environmental impacts due to the treatment, storage, and disposal of the waste generated by the proposed action for all alternatives and alternative options. Waste minimization programs at each of the proposed sites are also addressed. These programs will be implemented for the alternative selected in the Record of Decision.

**2451-3:** DOE is committed to providing the public with comprehensive environmental reviews of its proposed actions in accordance with NEPA, and holding public hearings is an essential and required part of the NEPA process. 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.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor: Mike Grainey  
[for] Governor John A. Kitzhaber, OR*

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The oral comments were submitted in written form by Governor John A. Kitzhaber and are addressed in the responses to Commentor No. 1648.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

***Commentor: Charlie Hales, Commissioner,  
City of Portland***

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The oral comments were submitted in written form and are addressed in the responses to Commentor No. 2019.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2437: Carrie Halstein*

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**2437-1** — I don't remember my first nuclear power protest, but I remember the first time I took my four children, it was November of 1971, I remember the day exactly, it was one of my sisters' birthday, November 3rd and there are two people in the room here tonight that were at that same protest. It was Amchitca Nuclear Underground Blast and my girl was a little, little girl then. My kids had conferences at school and they came home at 11 a.m. and I said gee, guess what we're going to do today? We're going to go protest nuclear power and that's where I met Lloyd. And 29 years later, here we still are.

So my message is simple. Clean up , clean up, clean up. No more waste. No more waste. And this is not a NIMBI, not in my background issue. No nuclear waste anywhere

**2437-2** — Number 5, deactivation and your mission is not our mission.

*Response to Commentor No. 2437*

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**2437-1:** The commentor's opposition to generating nuclear waste and support of cleanup is noted. The primary DOE mission at Hanford is cleanup. DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. A Tri-Party Agreement change was made to place the milestones for FFTF's permanent deactivation in abeyance until the DOE reaches a decision on whether the facility will be used to meet mission needs. Public meetings were held on this formal milestone change. The alternatives delineated in the NI PEIS, including FFTF restart, would not have an impact on Hanford cleanup activities.

**2437-2:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2485: Colleen Hanson*

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**2485-1** — I being in the past very anti-nuclear, but in the last couple of months I have listened to facts given to me by these folks and they are just folks. They're not these nuclear fat cats that we all think they are. They're just folks and they tell me these facts and I know, I know that's what they are because they all begin to add up.

So I listened and by listening I started to not be afraid of nuclear energy any more and these people with their fears, it's because of their lack of information and it angers me so much that our State officials will stand up there and feed us these half truths and that's what they are. Each one. Even a lay person, such as myself in just the amount of time that I have been learning these different details I have seen that they were speaking in half truths. And at the very least we should be given — both should go on the table, both sides of the story. Finally, let's set a precedent. Let's just get it on the table. Not this one, but maybe a bigger forum, but just get it on the table and you know what? I am the person that tried to coordinate the media.

*Response to Commentor No. 2485*

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**2485-1:** DOE notes the commentor's views.

## *Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

### *Commentor No. 2492: Karen Harding*

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**2492-1** — I am very much opposed to the FFTF start up.

**2492-2** — I feel that it's a dangerous signal to the powers that be that they can restart the nuclear industry in a time when the earth needs to put its research and development toward alternative energies. If they were given half a chance, they would be able to go and far surpass the poisons that are caused by the nuclear industry.

**2492-3** — I would prefer a shutdown of the FFTF.

**2492-4** — I would prefer that money be spent on the cleanup which sounds to me is realistically in the billions of dollars and not the millions.

The DOE has budgets for cleanup that don't even begin to cover what the real cleanup would cost. They do sort of a flat year by year budget which is maybe realistic to what they can get, but not realistic to what the cleanup is and the money is wasted and keeping that [FFTF] on hot standby.

**2492-5** — I appreciate the comment period being extended to the public and I would hope that the next time there are some accounting for the number of comments that are opposed and for, I suppose, so that it's more of a tally and there can be more of a sense that the vast majority of comments are against this reactor.

### *Response to Commentor No. 2492*

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**2492-1:** DOE notes the commentor's opposition to Alternative 1, Restart FFTF, and support for Alternative 5, Permanently Deactivate FFTF.

**2492-2:** DOE notes the commentor's interest in alternative energy sources. Issues of research and development of alternative energy sources are beyond the scope of this Nuclear Infrastructure PEIS. Despite advances in many energy technologies, America's future energy security will depend on a robust mix of energy sources which necessarily includes nuclear power generation. It is the current United States policy that clean, safe, reliable nuclear power continue as a viable component of the United States' energy portfolio. In recognition of this need, the government has initiated nuclear energy research and development programs to address potential long-term barriers to expanded use of nuclear power (e.g., nuclear waste, proliferation, safety, and economics) and to ensure that current nuclear power plants can continue to deliver adequate and affordable energy supplies. An enhanced DOE nuclear facility infrastructure is required to support such nuclear energy research and development for civilian applications.

**2492-3:** See response to comment 2492-1.

**2492-4:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

**2492-5:** 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

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2492: Karen Harding (Cont'd)*

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*Response to Commentor No. 2492*

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responses to those comments. These comments are summarized, tabulated, and cross-referenced by commentor, category, and method of submission. A summary discussion is also provided of the overall prevailing issues raised during the public comment period.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2482: Keith Harding*

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**2482-1** — My opinion is to immediately do the cleanup job ...

**2482-2** — ... don't restart [FFTF] ...

*Response to Commentor No. 2482*

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**2482-1:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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.

**2482-2:** DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2488: Leonard Harville**

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**2488-1** — I'm here tonight to express my support for the restart of the Fast Flux Test Facility ...

**2488-2** — At the minimum, I believe the costs of electrical power and the capacity available need to be considered for all the options.

**Response to Commentor No. 2488**

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**2488-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF.

**2488-2:** As presented in the Cost Report, utility costs were considered in the operating costs of all alternatives. Electrical costs were specifically broken out for Alternative 3, Construct New Accelerator(s) and Alternative 4, Construct New Research Reactor, as a factor in the preconceptual design estimates (see Appendixes A and B, respectively of the Cost Report). DOE acknowledges that Alternative 3, Construct New Accelerator(s) will place a high electrical demand on the local electrical grid. The impact assessment of the electrical demands of Alternative 3 on the local electrical grid is a site specific assessment and will be evaluated during subsequent NEPA review if the Record of Decision selects Alternative 3.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor: Harold Heacock*

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The oral comments were submitted in written form and are addressed in the responses to Commentor No. 353.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

***Commentor: Suzanne Heaston  
[for] U.S. Senator Slade Gorton, WA***

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The oral comments were provided in greater detail at the Seattle, Washington, hearing. For responses, see Commentor No. 2497 (Suzanne Heaston).

## Comments from the Portland, Oregon, Public Hearing (August 29, 2000)

### Commentor No. 2439: Robert Hedlund

**2439-1** — My Name is Robert Hedlund and I live in Portland. I also worked around Echo when I was a kid over there, when you guys were releasing double the amount of atomic energy that was released at Chernobyl. You don't experiment on people.

You know, Slade Gorton ought to be ashamed of himself. Sixteen families around that place up there, their kids have died. Their cattle, 80 out of 200 were defective. These bimbos talking about it doesn't affect you, hey, I don't have any #\*\$! hair on my legs, no teeth. My frigging hair fell out because of Trojan and your nuclear #\*\$!, you know, up there.

The people of Oregon want the #\*\$! mess cleaned up. They wanted the river cleaned up. We got to dredge this river, the Columbia River. How much of your crap is going to be put on the banks so our kids can go and play in it and die? I've had two #\*\$! kids die because of the #\*\$!, because of the crap between the St. John's Bridge and the Fremont Bridge. They knew the #\*\$! was in the ground. They didn't tell us. Four of my friends are dead.

**2439-2** — You talk about isotopes. We've got enough #\*\$! medical isotopes and the rest of this stuff. The minute Bechtel blew into town I knew exactly what the hell you guys were up to. They're the key player and stuff.

### Response to Commentor No. 2439

**2439-1:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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. The commentor's concerns regarding contamination of the environment is noted. Radiological impacts on populations residing within potentially affected areas surrounding the Hanford Site are addressed in Section K.5.3 of Appendix K. Models for estimating radiological health impacts discussed in Appendixes H and I assumed that all locally grown food supplies would be subject to radiological contamination throughout the project duration, and that all locally grown food supplies would be consumed by residents in the potentially affected area. The analysis of radiological effects that would result from implementation of the nuclear infrastructure alternatives indicates that the radiological risk to persons residing in the potentially affected area would be so small that no credible pattern of food consumption (or other ingestion pathways) would be expected to result in a latent cancer fatality. Implementation of the nuclear infrastructure alternatives would not be expected pose a significant risk of radiological contamination of land within the potentially affected area.

**2439-2:** DOE has sought independent analysis of trends in the use of medical isotopes, and of its continuing role in this sector, consistent with its mandates under the Atomic Energy Act. In doing so, it established two expert bodies, the Expert Panel and the NERAC. In 1998, the Expert Panel, which convened to forecast future demand for medical isotopes, estimated that the expected growth rate of medical isotope use during the next 20 years would range from 7 to 14 percent per year for therapeutic applications, and 7 to 16 percent per year for diagnostic applications. These findings were later reviewed and endorsed by NERAC, established in 1999 to provide DOE with expert, objective advice regarding the future form of its isotope research and production activities. DOE

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)**Commentor No. 2439: Robert Hedlund (Cont'd)**Response to Commentor No. 2439*

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

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2436: Nancy Hendrix*

**2436-1** — I'm here to ask that you do decommission the FFTF

**2436-2** — . . .use all the monies for cleanup at Hanford and I won't be thanking you for this until that is done.

**2436-3** — And what I'd like to talk about briefly, there have been many reasons, very well written, very well reiterated over and over again why this reactor should be shut down. I find it unfortunate that the powers that be and when I speak about the powers that be we all know what this about and that is about money and it is only about money. And what is happening with the Pacific Northwest National Lab is a weapons lab. We all know how money works and how power works and how it pits people against each other, people who would be joining forces and how it uses that and that's exactly what's happening with anybody who has cancer. I mean you can't help but feel for them and want what's best for them. But there is such a thing, as first of all, as this has been addressed in the past, the fact is there are other ways to get those radioisotopes. It does not have to be here. And what is being done is you're being used whether you know it or not, and you're being used by money, not by who you think you're helping or what you think you're doing, but you are being used by the powers that be that have other agendas, but the agenda is the real issue.

**2436-4** — If it isn't so damn economical some other way, then do it some other way, but not here and not now and frankly, the amount of cancer that has been caused and will be caused in millennium and millennium and millennium by nuclear power, by the by-products of the reactor is so much more than any cancer that could be cured through promulgating it.

*Response to Commentor No. 2436*

**2436-1:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

**2436-2:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

**2436-3:** DOE notes the commentor's concerns. However, DOE has no hidden agenda for weapons production or use of FFTF for military missions. 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. The NI PEIS evaluates a range of reasonable alternatives for accomplishing the proposed action, one of which includes use of FFTF. Section 1.2 of Volume 1 was revised to clarify the purpose and need of the proposed action.

**2436-4:** The commentor's concern for cancers associated with the entire nuclear industry is noted. This PEIS has provided an estimate of the incremental potential human health impacts associated with a reasonable range of

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)**Commentor No. 2436: Nancy Hendrix (Cont'd)*

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*Response to Commentor No. 2436*

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alternatives (including the restart of FFTF) for the production of isotopes for medical uses, research and development, and as heat sources for radioisotope power systems. The methodology used is intended to provide realistic results based upon our current knowledge of the health impact of low doses of radiation. Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that would be expected to result from implementation of 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.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2469: Phillip Hiller*

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**2469-1** — ... I think very strongly that we ought to open FFTF again for this production of medical isotopes.

*Response to Commentor No. 2469*

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**2469-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2447: Chuck Johnson**

**2447-1** — I personally do believe that there needs to be additional research into the use of some of these radioisotopes for cancer treatments and I think it's very important. It has the potential, as some people have said, to reduce the amount of radiation exposure to people who have cancer and to target that cancer treatment, specifically to the cells that need to be targeted. That doesn't mean that we need to produce those isotopes at Hanford and at FFTF. I believe that until we're certain that we're going to need the quantity of isotopes that we're talking about, there's no reason to go ahead. It's being speculated upon. There's no reason to go ahead with the restart of the FFTF merely on the speculation that we might need enormous amounts of isotopes.

We have other reactors that already exist that are operating that can produce those isotopes.

**2447-2** — Some of these isotopes can be produced in linear accelerators, so it's premature, it seems, to make a decision of that type to run that facility merely for that purpose, particularly because this type of reactor, a liquid cooled metal reactor, cooled by sodium is a hazardous reactor, more hazardous if an accident occurs than some other designs of reactor.

The configurations that would be used in that reactor for producing the isotopes would be varied, would — there would need to be different configurations used to produce different types of isotopes and the complexity involved in that increases the chance that an error may occur with operators. You're not going to have that kind of a danger with an accelerator because you can simply switch off the electricity if you have a problem.

If you use more plutonium in that reactor, it's harder to control the chain reaction of a nuclear reactor that has a higher amount of plutonium in it because the fluctuations in heat happen much more rapidly than they do with uranium.

This could be an extremely dangerous reactor ...

**2447-3** —...another thing that's not included in the cost estimate is the cost of decommissioning the reactor. It's included in the other options, in the options of using other alternatives that cost to decommissioning is added, but the cost of decommissioning is not added in the option for operating the FFTF reactor.

Are you anticipating to operate that reactor indefinitely and never close it down? And never have a cost for shutting it down? I think you need to look at that. That's an obvious mistake that you've made in your calculations for cost right there.

**2447-4** — And I also think that you need — there needs to be some sort of basic estimate as to how long you anticipate this reactor could operate. Other reactors that have used higher concentrations of plutonium have had trouble with melting and have had to close down their reactors early.

**Response to Commentor No. 2447**

**2447-1:** DOE acknowledges the difficulty in reliably predicting isotopic needs for future uses in research and medicine. DOE has sought independent analysis of trends in the use of medical radioisotopes, and of its continuing role in this sector, consistent with its mandates under the Atomic Energy Act. In doing so, it has established two expert committees. The first, a thirteen-member Expert Panel convened in 1998 to forecast future demand for medical isotopes, included academicians from leading medical universities and schools of public health, and professional affiliations ranging from the National Cancer Institute to manufacturers of radiopharmaceuticals. The second consists of a subcommittee of DOE's Nuclear Energy Research Advisory Committee (NERAC), established in 1999 to provide DOE with expert, objective advice regarding the future form of its isotope research and production activities. The members of this Subcommittee were selected based upon their expertise and experience in the production, processing, distribution, and application of stable and radioactive isotopes in the biological and physical sciences, and in medicine. The members included basic and clinical scientists, administrators, and users of isotopes from academia, industry, and the federal government. In 1998, the Expert Panel, which convened to forecast future demand for medical isotopes, estimated that the expected growth rate of medical isotope use during the next 20 years would range from 7 to 14 percent per year for therapeutic applications, and 7 to 16 percent per year for diagnostic applications. These findings were later reviewed and endorsed by NERAC, established in 1999 to provide DOE with expert, objective advice regarding the future form of its isotope research and production activities. DOE has adopted these growth projections as a planning tool for evaluating the potential capability of the existing nuclear facility infrastructure to meet programmatic requirements. In the period since the initial estimates were made, the actual growth of medical isotope use has tracked at levels consistent with the Expert Panel findings. Section 1.2.1 of Volume 1 was revised to incorporate this information and to clarify DOE's role in fulfilling the U.S. research and commercial isotope production needs. The United States currently purchases approximately 90 percent of its medical radioisotopes from foreign producers, most notably Canada. However, Canada only supplies a limited number of economically attractive commercial isotopes (primarily molybdenum-99), and it does not supply research isotopes or the diverse array of medical and industrial isotopes considered in the NI PEIS. As such, reliance on Canadian sources of isotopes to satisfy projected U.S. isotope needs would not meet DOE's mission requirements. 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. Currently, approximately 50 percent of DOE's isotope production

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2447: Chuck Johnson (Cont'd)*

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If we put all our eggs in this one basket for these isotopes, what are you going to tell all these people who need cancer treatments if that thing melts and they can't get those isotopes that you say are so important?

**2447-5** — I think you need to consider all of these things in your environmental impact statement and I would urge you to consider finding alternative sources Pu-238, avoiding the cost and the need for running a reactor or an accelerator for that and consider building a linear accelerator to meet the medical isotope needs.

*Response to Commentor No. 2447*

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

**2447-2:** FFTF can be safely operated to support the nuclear infrastructure missions described in Section 1.2 of Volume 1. Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that would be expected to result from implementation of Alternative 1, including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed that radiological and nonradiological risks associated with restarting FFTF would be small. Prior to an FFTF restart, a revised safety analysis report and a probabilistic risk assessment would be prepared which would address any changes in plant configuration, operating conditions, and procedures. The revised safety analyses would be subjected to a thorough independent review process.

**2447-3:** While the Cost Report evaluates the cost of permanently deactivating FFTF as described in the NI PEIS, it does not consider the costs of ultimate decontamination and decommissioning of the facilities evaluated for the proposed actions. FFTF would be permanently deactivated should a decision be made to select any alternative other than Alternative 1 (Restart FFTF) or the No Action Alternative and those costs are appropriately applied to the other alternatives. Decommissioning FFTF, including associated costs, is not within the scope of the NI PEIS. Before decommission activities were undertaken, DOE would prepare the appropriate environmental documentation to address the associated environmental impacts. Cost assessments would also be prepared. DOE remains committed to cleaning up the Hanford Site independent of ultimate decision on FFTF. The amounts of wastes associated with decommissioning FFTF would be small. The schedule for cleaning up these other wastes would not be affected if FFTF were restarted.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2447: Chuck Johnson (Cont'd)*

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*Response to Commentor No. 2447*

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- 2447-4:** The FFTF can be operated safely to accomplish the stated missions. Evaluations have shown that FFTF has sufficient life remaining to fully support the 35 year mission proposed in the NI PEIS. As stated in EIS 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. The age and condition of the FFTF facility infrastructure will be considered by DOE in its decision making process. The separate cost report accounts for costs associated with expected FFTF facility modifications. 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. Included in the PEIS are the results of analyses that show that the risks associated with operating the FFTF are very small. 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.
- 2447-5:** DOE notes the commentor's support for finding an alternative source for plutonium-238 and Alternative 3, Construct New Accelerator(s) (for medical isotope production only). The commentor should note that the No Action Alternative provides for the possible purchase of plutonium-238 from Russian. However, the stated goal of the NI PEIS is to enhance U.S. capabilities in this area.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2441: Kathleen Jurgens**

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**2441-1** — Like many, many people here, I've been coming to these hearings year after year, hearing after hearing on the same subject and I'm getting really, really sick of saying the same thing over and over again and having you folks ignore it. What the people of Oregon and what I have been saying for years on this subject can be boiled down to one sentence and that is what part of no don't you people understand?

**2441-2** — Shut down that damn reactor. . .

**2441-3** — . . .start cleaning up the land.

**Response to Commentor No. 2441**

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**2441-1:** DOE is committed to providing the public with comprehensive environmental reviews of its proposed actions in accordance with NEPA, and holding public hearings is an essential and required part of the NEPA process. 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.

**2441-2:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

**2441-3:** DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing Hanford cleanup activities are high priority to DOE. Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2454: Matthew Kenega*

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**2454-1** — The FFTF reactor is not wanted in this area. I think that's been made very clear. It's very emotional.

**2454-2** — I'm not so sure that we need to expand at Hanford. We can't handle what we've got. We don't understand what we've got. Hanford, in particular, we have these tens of thousands of gallons of waste. We don't even know what a third of it is, let alone how to store it for the next several thousand years. Who is to say in a thousand years that we'll even know it's there? Let alone how to treat it. And by adding to that all of our facilities, anywhere, is irresponsible.

**2454-3** — Perhaps we should change the mission statements to clean up in general of all the nuclear facilities in the whole world.

The French have been very strong in their research because they have complete reliance on nuclear power. The Soviets don't have any money or infrastructure for research and perhaps we need to put our money over there and take over their facilities, of what can be allowed at least. Maybe their waste needs to be handled by us because they certainly aren't able to do it. Everybody is going to end up with the net effect of this poorly developed program that we've done in the last 60 years.

*Response to Commentor No. 2454*

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**2454-1:** DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

**2454-2:** DOE notes the commentor's concerns regarding the high-level waste tanks 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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 discussed in Section 4.3, Volume 1, no high-level radioactive waste would be added to the high-level waste tanks at Hanford.

**2454-3:** DOE notes the commentor's interest in cleanup activities, although issues of waste cleanup activities are beyond the scope of this Nuclear Infrastructure PEIS. 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 the nuclear infrastructure alternatives.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor: Wayne Kenny  
[for] U.S. Senator Ron Wyden, OR*

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The oral comments were submitted in written form and are addressed in the responses to Commentor No. 158.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2446: Toby Kentine**

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**2446-1** — I want to find out if the mind of those who are making the decision or have you already made up your mind? I hope you haven't. I hope you're willing to look at all the things that are being said. I'm assuming that's the case.

**2446-2** — The concern I have is how do we know, how do we know for sure that the radiation coming from the reactor is safe? If someone can say well a certain amount is safe, well, how do we know that for true absolute fact? A certain kind of safe, but there's evidence that it's accumulative, it's has a cumulative effect. In other words, you can get a little bit, a little bit more, a little bit more and gradually the body will build up. Do you follow what I'm saying?

How do we know how much is safe? Is it really proven absolutely true that a certain amount is safe? I don't think there's anybody who can actually say that a certain amount is safe and until it has been proven that it's safe, it's dangerous. There's the potentiality of tremendous serious negative things happening to us. And there's evidence — now, one of the things about the effects of radiation that the possible radiation will not get us now and then 30 to 40 years in the future is when people start getting the cancers or when they get the negative effects.

If you don't know that having radiation will or will not cause cancer, then why are we taking the risk with ourselves and with our children and with our future?

**Response to Commentor No. 2446**

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**2446-1:** 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. No final decisions have been made with regard to the facilities and locations evaluated 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. 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.

**2446-2:** Ongoing research into the effects of low level doses of ionizing radiation has the potential to impact the way in which low dose health effects are modeled. As indicated in Appendix H, the linear no threshold model utilizes dose to cancer conversion factors based upon studies of individuals who have received relatively large individual doses or have been members of groups who have received large population doses. This model assumes that any radiation dose, no matter how small, has the potential to result in the development of cancer. The current research is an attempt to develop a better health impacts model to based upon health impacts to groups who have been exposed to lower level doses. However this research has not yet yielded sufficient information to justify modification of the linear no threshold model. The linear no threshold model remains the currently accepted approach to modeling low level radiation health impacts. The research done to date does take into account the fact that many cancers appear long after the initial exposure to a carcinogen. Surveys of people exposed to radiation used as the basis for radiation dose to cancer conversion factors have been performed many years after the initial radiation exposure. This PEIS has provided an estimate of the incremental potential human health impacts associated with a reasonable range of alternatives including the restart of FFTF) for the production of isotopes for medical uses, research and development, and as heat sources for radioisotope power systems. The methodology used is intended to provide realistic results based upon our current knowledge of the health impact of low doses of radiation. Section 4.3 of Volume 1 provides the results of the evaluation of potential health impacts that would be expected to result from implementation of Alternative 1 (which includes restart of FFTF), including normal operations and a spectrum of accidents that included severe accidents. The environmental analysis showed

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2446: Toby Kentine (Cont'd)*

*Response to Commentor No. 2446*

that radiological and nonradiological risks associated with restarting FFTF would be small.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2491: Chris Kerchum, et al.*

**2491-1** — I think that 20 years is long enough to have had Hanford tanks at least begun to be pumped and stored in a safe manner. We haven't been able to do that. We don't have any business starting up the Fast Flux Test Facility again. They can't fix what's already been broken. I think it's extremely dangerous to give more waste to this pile and as a Portland area resident I'm very sure that DOE would never tell me if there was an accident that threatened my life, much less my property values. They've lied to me in the past and they continue to lie. They continue to misrepresent the threat that this plant faces.

**2491-2** — It's not a safe plant. It's 20 years old.

**2491-3** — It [FFTF] should have been decommissioned and put out of service. I understand it takes years to do that even if you were to tell them to shut it down today it would take at least three to five years to fully shut it down.

**2491-4** — ...we, the undersigned want the DOE to not restart the Fast Flux Test Facility nuclear reactor. And it's signed Chris Kerchum, Nancy Powell, Paul Almond, I think — I can't read his writing — Helen Warren, Bill Warren, Craig Barber, Art Thomas, Christina Lindstrom, Jeff Pegman, Keith Shaw, F.C. Poundstone, Elbadia Schultz, Jean Ann Dryer, Irene Williams who also share my belief that this is a plant that should be shut down.

*Response to Commentor No. 2491*

**2491-1:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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 environmental impacts associated with operation of the FFTF and support facilities at Hanford during normal operations and from postulated accidents are presented and discussed in Section 4.3 of the draft NI PEIS. All impacts to human health and to ecological resources would be small in the immediate area of the Hanford Site and negligible at all distant locations.

**2491-2:** This NI PEIS has examined the risks associated with the operation of the FFTF for 35 years for the purpose of producing isotopes for medical use, research and development, and for the production of radioactive heat sources for power supply systems. 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. (Accident analysis is described in Appendix I and the normal operations risk analysis is described in Appendix H.) The environmental analysis showed that radiological and nonradiological risks associated with restarting FFTF would be small. Based upon these analyses, as well as the previous safe operation of the facility, FFTF can be operated safely to accomplish DOE missions. Additionally, in the event that FFTF restart is selected, a new Safety Analysis Report will be prepared and subjected to a thorough independent review process. The facility reanalysis as part of the Safety Analysis Report update process would ensure that the analyses bound the reactor-operating envelope for the duration of FFTF operation. The Safety Analysis Report would be routinely reassessed and updated when required to address any changes in plant configuration or changes in plant operation procedures. This continuing safety analysis updating would include analysis of changes that may occur as a result of facility aging during the 35 years of operation.

**2491-3:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF, and opposition to Alternative 1, Restart FFTF. Figure 2-35 presents the implementation schedule for Alternative 5.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2491: Chris Kerchum (Cont'd)*

*Response to Commentor No. 2491*

2491-4: See response to comment 2491-3.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2461: William J. Kinsella**

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**2461-1** — Assumption 1, that an expansion of the nuclear infrastructure along the lines proposed is necessary and mandated. In fact, the proposed expansion may well run counter to the public interest while serving the Office of Nuclear Energy's own institutional agenda. In this regard, the PEIS document is not a disinterested scientific study. Rather, it's a marketing tool which advocates for its authors' interests under the guise of scientific objectivity.

**2461-2** — Restarting FFTF would contaminate buildings and areas that are not yet contaminated and would directly interfere with the existing clean up plan for the 300 Area.

Introducing any new waste to the site is unacceptable and would undermine the Department of Energy's own stated mission, to clean up Hanford and regain public trust.

The additional oral comments were submitted in written form and are addressed in the responses to Commentor No. 2046.

**Response to Commentor No. 2461**

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**2461-1:** DOE notes the commentor's concern. 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. This NI PEIS has been prepared in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementation regulations (40 CFR Parts 1500 through 1508 and 10 CFR Part 1021), respectively. DOE evaluated each environmental resource area in a consistent, unbiased manner across all the alternatives to allow a fair comparison among the various alternatives.

**2461-2:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor : Bruce Klos*

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The oral comments were submitted in written form and are addressed in the responses to Commentor No. 406.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2465: Nancy Korbin**

**2465-1** — First, there is no medical need to restart FFTF for the production of isotopes. Telephone calls to local hospitals, clinics and isotopes suppliers all verify ample supplies of isotopes. We get iodine-131 and Xenon from Canada; iodine-123 and gallium-67 comes from St. Louis, Missouri; and 18 FDG which is used for PET scanning, that's not pet scan as in dogs and cats, that's positrons emission tomography, a little ahead of CAT scanning. That's being produced in Seattle and being brought to the Portland area at the present time.

The restart of the FFTF reactor to produce medical isotopes is unwarranted and much too expensive. There's no medical need and that is verified with both the Washington Medical Association and the Department of Energy's own blue ribbon committee. The DOE must include their subcommittees' recommendations against FFTF in the final EIS.

**2465-2** — Second, restart of the FFTF, that may require the importation of plutonium to the Pacific Northwest ports which would traverse our highways. People in the Northwest have made it abundantly clear they do not want these radioactive shipments on their highways by a vote of 65 percent on Initiative 383. Washingtonians have spoken. We don't want any radioactive shipments coursing our highways.

**2465-3** — Third, restart of the FFTF means there will be more nuclear waste to deal with and we have no means of doing that at Hanford. The plutonium finishing plant and the plutonium reprocessing plant are both closed down and inoperable.

We can't deal with the waste we already have at Hanford and that is the best reason not to create any more.

**2465-4** — Fourth, restart of the FFTF violates the Tri-Party Agreement. According to the agreement entered into by the U.S. Department of Energy, the Washington State Department of Ecology and the U.S. Environmental Protection Agency, the FFTF is to be deactivated and decommissioned. The State of Washington and the EPA will have legal recourse against such action. When DOE's own internal documents recommend against restart, why is anyone even discussing any possibility of restarting FFTF.

In closing, the Department of Energy needs to put all its effort into what is legally required to do and that is to clean up the horrendous amount of radioactive waste at Hanford.

**2465-5** — Ms. Brown, I was very disappointed to hear that Secretary Richardson was not informed of the fact that the Washington Medical Association opposes restart of the FFTF. I think that's an organization that carries a great deal of respect and I think that the Secretary needed to have piece of information and I do hope that you will convey that to him.

**2465-6** — As if it's not obvious, I support Option 5. Shut it down.

**Response to Commentor No. 2465**

**2465-1:** 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. The conclusions presented in the NERAC Subcommittee for Isotope Research and Production Planning Final Report, April 2000 regarding the suitability of FFTF to produce research isotopes in a timely and cost efficient manner were made in the context of the facility producing research isotopes as its sole mission. It would not be cost effective to restart FFTF for the singular purpose of producing small quantities of various research isotopes. However, sustained operation of FFTF for the production of larger quantities of both research and commercial isotopes would be viable if operated in concert with producing plutonium-238 and conducting nuclear energy research and development for civilian applications. As the NERAC report states: "In limited instances, the DOE possesses unique resources, e.g., the high flux of fast neutrons and large irradiation volume in FFTF, that could be utilized for the production of some radioisotopes, but is best suited for commercial interests who might consider its use for isotope production." In recognition of these constraints on its operational feasibility, the NI PEIS only evaluates the use of FFTF when coupled with the other stated missions. While some existing reactors may possess the potential capability or capacity to support research isotope production, as suggested in the NERAC report, it is unlikely that reliable, increased production of these isotopes to support projected needs could be accomplished without impacting the existing missions of these facilities. 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). The United States currently purchases approximately 90 percent of its medical radioisotopes from foreign producers, most notably Canada. However, Canada

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2465: Nancy Korbin (Cont'd)*

*Response to Commentor No. 2465*

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

**2465-2:** DOE notes the commentor's opposition to the shipment of radioactive materials on Washington highways. Washington State Initiative Number 383 (Shall Washington ban the importation and storage of non-medical radioactive wastes generated outside Washington, unless otherwise permitted by interstate compact?) was approved in the General Election of 1980. No radioactive wastes generated outside the state of Washington will be imported into the state as a result of activities covered by the NI PEIS. Mixed oxide fuel is not a radioactive waste. Alternative 1 does postulate that DOE might decide at some point to import mixed oxide fuel from Europe to fuel FFTF. At this time, however DOE has not proposed to import this fuel through any specific port. If DOE ultimately decides to import fuel from Europe, it would perform a separate NEPA analysis to select a port. This review would address all relevant potential impacts of overseas and inland water transportation, shipboard fires, package handling, land transportation, as well as safeguards and security associated with the import of SNR-300 mixed oxide fuel through a variety of specific candidate ports on the east and west coasts. It would consider all public comments, including local resolutions, concerning the desirability of bringing mixed oxide fuel into the proposed alternative ports. In the event that DOE decides to enhance its nuclear infrastructure, it would not expose any population to high, unacceptable risks under any alternative. Any transportation activities that would be conducted by DOE would comply with U.S. Nuclear Regulatory Commission and U.S. Department of Transportation

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2465: Nancy Korbin (Cont'd)**

**Response to Commentor No. 2465**

regulations. Associated transatlantic shipment would comply with International Atomic Energy Agency requirements. In Section J.6.2, DOE reviewed the potential maximum impacts from the marine transportation of mixed oxide fuel from Europe to a representative military port, Charleston, South Carolina, and overland transportation to Hanford. Also in that section, a bounding analysis demonstrates that the maximum potential radiological risks to the surrounding public from mixed oxide fuel shipments would be extremely small (e.g., less than 1 chance in a trillion for a latent cancer fatality per shipment from severe accidents at docks and in channels and less than 1 chance in 50 billion for a latent cancer fatality per shipment from overland highway accidents).

**2465-3:** Management of wastes that would be generated under implementation of Alternative 1 (Restart FFTF) is discussed in Section 4.3 of Volume 1 (e.g., see Section 4.3.1.1.13). Section 4.3.1.1.13 was revised to clarify that, the Hanford waste management infrastructure is analyzed in this PEIS for the management of waste resulting from FFTF restart and operation. This analysis is consistent with policy and DOE Order 435.1, that DOE radioactive waste shall be treated, stored, and in the case of low-level waste, disposed of at the site where the waste is generated, if practical; or at another DOE facility. However, if DOE determines that use of the Hanford waste management infrastructure or other DOE sites is not practical or cost effective, DOE may issue an exemption under DOE Order 435.1 for the use of non-DOE facilities (i.e., commercial facilities) to store, treat, and dispose of such waste generated from the restart and operation of FFTF. In addition, Section 4.3.3.1.13 and 4.4.3.1.13 also address the potential impacts associated with the waste generated from the target fabrication and processing in FMEF and how this waste would be managed at the site.

**2465-4:** DOE notes the commentor's opposition to Alternative 1, Restart FFTF, and concerns regarding violation of the Tri-Party Agreement. 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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. A Tri-Party Agreement change was approved by all signatories to place the milestones for FFTF's permanent deactivation in abeyance until the DOE reaches a decision on whether the facility will be used to meet mission

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2465: Nancy Korbin (Cont'd)*

*Response to Commentor No. 2465*

needs. Prior public meetings were held on this formal milestone change prior to its adoption. 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.

**2465-5:** DOE notes the commentor's viewpoint. The Secretary of Energy has been informed of the comments relating to the organizations and members of the public who oppose the restart of FFTF.

**2465-6:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor: Lloyd K. Marbet*

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The oral comments were submitted in written form and are addressed in the responses to Commentor No. 230.

## *Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

### *Commentor No. 2489: Wayne Marshall*

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**2489-1** — The most important thing is that I am here to voice the opinion that the FFTF restart option should be the preferred alternative.

**2489-2** — I believe the EIS did a pretty good job of identifying how minor the environmental impacts are. After tonight's meeting though I have a new understanding of the concerns, the anxiety, the fear and the governmental distrust that is common, at least in Portland here and perhaps Hood River and Seattle. Clearly, that needs to be addressed with outreach, education programs, but I don't believe that should color the decision, the technical decision about the path forward.

**2489-3** — I believe there is a misunderstanding about the supporters of FFTF, that they disregard the potential contamination of the river or the desire for cleanup. We, too, have those desires and those concerns, but the FFTF option needs to be selected and pressed forward and DOE needs to champion the funding necessary to clean-up Hanford as well as operate the FFTF.

**2489-4** — I wonder, after hearing the concern for government funding, if the PEIS should address funding issues or should address how the funding issues can be separated or would be separated from Hanford cleanup costs and the performance. That seemed to be a major sticking point here, a concern that FFTF is robbing funds. Perhaps the PEIS could address it.

### *Response to Commentor No. 2489*

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**2489-1:** DOE notes the commentor's support for Alternative 1, Restart FFTF.

**2489-2:** DOE notes the commentor's views that environmental impacts as identified in the NI PEIS are minor and that public outreach and education are needed to address fear, anxiety, and mistrust in the public participation process. 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.

**2489-3:** DOE notes the commentor's support for 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

**2489-4:** While cost is an important factor that will be considered in the final record of decision, costs are beyond the scope of the NI PEIS. A cost report for the NI PEIS alternatives was prepared and made available to the public. 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.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

***Commentor: Bill Mead  
Public Safety Resources Agency***

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The oral comments were submitted in written form and are addressed in the responses to Commentor No. 2027.

## Comments from the Portland, Oregon, Public Hearing (August 29, 2000)

### Commentor No. 2450: Bill Michtom

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**2450-1** — First of all, the pages that were posted from the Hanford site by this man here talk about a funding shortfall, what is referred to as a compliance gap and that there will need to be trade offs. Well, we've been trading off for a long time, for 60 years at Hanford and I think that's where that statement comes from. It may be inaccurate, but if FFTF at its cheapest is going to be \$300 million and we have funding shortfalls, where there's \$300 million would go to cleaning up that we're using for something else.

**2450-2** — Two, looking at the handouts and I think in the PEIS, one of the things that it talks about is the cancer latency rates at the three reactors at Hanford, Oak Ridge and Idaho, among the workers. Among the workers at Hanford the cancer latency is more than five times greater than it is at Oak Ridge and more than four times greater than it is at Idaho. And this is where you want to add more stuff, rather than cleaning it up. This seems to me flawed.

**2450-3** — Another thing from talking with one of these folks here, I think this man here, but I can't remember now, was that the clean up is going to put the reactors and the nuclear stuff in cocoons that have a life span of 75 years and yet the half-lives of the two major radioactive items that are going to be in there range up to 90 years. So even the way you're protecting them doesn't even meet the requirements you know about right now which once again seems like what we've been dealing with for 60 years.

**2450-4** — But the man I spoke to said that using the Fast Flux Test Facility to create nuclear radioisotopes for medical reasons is like using a sledge hammer to kill a flea. And that most of what's being produced is not medical isotopes. So there's something of a scam going on here.

**2450-5** — It [FFTF] should be not started up...

**2450-6** — ...the medical benefits that we can derive from radioisotopes can clearly be done differently, cheaper and better and more safely for the workers than what's happening at Hanford.

### Response to Commentor No. 2450

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**2450-1:** 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.

**2450-2:** The commentor's concern regarding the estimated total workforce dose (cumulative impact) for Hanford workers is noted. The estimated cumulative worker dose at Hanford is in part a result of the activities planned for waste management and tank remediation. These potential impacts are far greater than the incremental impact from the activities associated with the range of reasonable alternatives considered in the NI PEIS. There is little difference in the small incremental impact at all three sites; as shown in Sections 4.8.1.3, 4.8.2.3, and 4.8.3.3.

**2450-3:** The comment appears to be related to the cleanup of reactors and the nuclear material (i.e., the decommissioning of the nuclear reactor). The concern is that the nuclear reactor and nuclear materials associated with the nuclear reactor operation may be "cocoons," such as safe storage or entombment, and the nuclear materials have long half-lives for the storage. In the Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities (see discussion in Section 4.6.1.3.9 of the NI PEIS), the Nuclear Regulatory Commission determined that the health impacts to the public from the decommissioning of reactors was "negligible." The NI PEIS does not involve site-specific issues in the decommissioning of nuclear reactors. For site-specific nuclear reactor, the decommissioning action at that time would be under a separate and appropriate environmental review process.

**2450-4:** DOE agrees that the FFTF's large size and configuration are not particularly well suited for the singular purpose of producing small quantities of various research isotopes. However, sustained operation of the FFTF for the production 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 Nuclear Energy Research Advisory Committee (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

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2450: Bill Michtom (Cont'd)**

**Response to Commentor No. 2450**

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

**2450-5:** DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

**2450-6:** DOE has examined a total of 6 alternatives, including the No Action Alternative, in the NI PEIS. Alternatives to the use of FFTF for the production of medical isotopes include continued production at existing facilities (all alternatives), construction of a new accelerator(s) (Alternative 3), and construction of a new research reactor (Alternative 4). It is also possible that DOE could decide on a combination of 2 or more alternatives in the Record of Decision. Thus, DOE has examined a number of different ways to produce medical isotopes other than the use of FFTF. Costs associated with the different alternatives are covered in a separate cost report. Worker safety (radiological protection) is a key element of the DOE's Radiological Health and Safety Policy (DOE P 441.1, April 26, 1996). This policy states in part that DOE facilities must "conduct radiological operations in a manner that controls the spread of radioactive materials and reduces exposure to the workforce and the general public and that utilizes a process that seeks exposure levels as low as reasonably achievable." Each DOE site, including Hanford, is required to implement a radiological control program with the intent to meet this policy goal. Based on the assessment of worker health impacts for all of the alternatives and options that make use of facilities at Hanford, the most likely impact of the use of these facilities for purposes addressed in the NI PEIS is no

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2450: Bill Michtom (Cont'd)*

*Response to Commentor No. 2450*

increase in cancer fatalities among the facility workers. This assessment is based on operational data collected at the facilities during recent operation. For example, in Alternative 1, Option 1, all of the activities (target irradiation and processing) occur at Hanford facilities FFTF and the RPL [Area 300 Buildings]). As shown in Table 4-18 of the PEIS, the expected consequences are less than one additional fatal cancer among the workforce; that is, no additional fatal cancers are expected.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2495: Martin Mijal*

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**2495-1** —...I don't want to see the reactor [FFTF] started again.

**2495-2** — I want you to honor your 1993 or 1995 agreement to abolish the reactor. I think it's just terrible to create nuclear waste. It's not going to go away. It's going to be a problem for many, many eons, centuries in the future. So I think it just should stop making more nuclear waste and close down the Hanford — close down all nuclear sites and clean it up, although there's no real cleanup.

*Response to Commentor No. 2495*

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**2495-1:** DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

**2495-2:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF (with No New Missions), 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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. A Tri-Party Agreement change was made to place the milestones for FFTF's permanent deactivation in abeyance until the DOE reaches a decision on whether the facility will be used to meet mission needs. Public meetings were held on this formal milestone change. The alternatives delineated in the NI PEIS would not have an impact on Hanford cleanup activities.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2474: Mary Morgan*

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**2474-1** — I came tonight as a request of a friend who was interested on the behalf of the medical isotopes and just as a member of the community and a citizen and a mother and a daughter and a wife and a sister and everything that many of the people are saying in there, I'm grateful and truly that's just what I want to express right now, is I'm grateful to the DOE for providing the opportunity for people to voice their opinion. I have yet, I think, to develop an opinion on this. I just wanted to express my gratitude, I guess, to the DOE for following the process and also for this great nation that we're a part of. I'm grateful that is such educational viewpoints or educated viewpoints from both points and thank you.

*Response to Commentor No. 2474*

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**2474-1:** DOE notes the commentor's support of the public participation process.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2494: Bruce Noordhoff**

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**2494-1** — I am very pleased with the quality, the professional quality of this document. I was distressed in only one area and that has to do with the degree of discussion concerning the consensus that appeared to be there at Hood River and Richland and Seattle and Portland and so on. It didn't seem to me that it was appropriate for an EIS, but it might be if you look at the various factors to be considered.

The EIS is essentially complete. I think it lacks little, somewhat, but not significant amounts. I think it's time now for it to go to a recommendation to the decision-makers. The past judgment on these findings I have two comments that I would like to address pertaining to the decision, offering this to the decision makers. First, I ask that they stay focused on the long-term needs of this country and avoid letting short term simplistic options govern their decision. This will be a decision that will affect our leadership role in the world for generations to come. The decision needs to provide capacity for the probable trend lines and the growth that is projected for the various needs in the nuclear area there. So I encourage them to take the long term perspective.

Secondly, I ask that this decision be reached with convictions based on technical merit and not on the consensus of meetings like this or unrelated pressures from the outside.

**2494-2** — In closing, let me remind that 10 years ago the pressures from the opponents caused a premature shutdown of the Pulex facility before the heel of material was processed through and as a result of that heel of material now being stored in the K Basins, we have a concern for the City of Richland to the contamination of the river. We are spending \$1.5 billion of money that might be put on to the cleanup of the facility to move that heel of material away from the river, not to dispose of it permanently, but to babysit it in a facility forever. So it is a matter of concern that pressures cause decision makers to make wrong mistakes occasionally, wrong decisions and I implore this agency to hang tough and make the decisions based upon the technical factors and the guts decisions that they have come to with regard to the needs of the country.

**Response to Commentor No. 2494**

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**2494-1:** DOE notes the commentor's views regarding the quality and completeness of the NI PEIS and for the need to base decisions on technical merit. 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.

**2494-2:** Comment noted.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2481: Gabriel Pettyjohn*

**2481-1** — I think there's a lot to be considered here and it really disappoints me that this is not as much in the public eye as I think it should be. The past failings of the Energy Department to manage Hanford have been egregious and I don't think that they've done really what's necessary to resurrect public trust and I think that's something that needs to be addressed.

**2481-2** — Also, I think there's something inherent and this is on a philosophical note, inherent in the technology of nuclear power and its expansion, that's the continued centralization of power and I think the question needs to be asked who will benefit from this. It's being marketed as a benefit for individuals undergoing cancer therapy and also for scientific space exploration, but I have not seen any information or any report covering the contractors which will financially benefit from this. The lobbying process that they have undergone, there is no research or information that I've seen exactly who are the medical contractors who would benefit from this or their contributions to political campaigns in relation to this issue. Basically what I'm concerned about is that this decision will not be reflecting public safety or public interest, but private and corporate interest and private and corporate profit.

*Response to Commentor No. 2481*

**2481-1:** 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 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 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. 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.

**2481-2:** Selection of facilities and site locations for accomplishing expanded civilian nuclear energy research and development and isotope production missions is not being driven by special interests working on behalf of any corporate, institutional, or other nongovernmental entity with a stake in the decisions to be made. The facilities and locations evaluated in this NI PEIS represent a range of reasonable alternatives for accomplishing the DOE missions and serve to enable DOE to meet its responsibilities under the Atomic Energy Act. 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.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2445: Laurel Piippo**

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**2445-1** — You are obligated to clean up the mess at Hanford whether FFTF is restarted or not. Am I correct?

The additional oral comments were submitted in written form and are addressed in the responses to Commentor No. 410.

**Response to Commentor No. 2445**

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**2445-1:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2457: Gerald Pollet**  
**Heart of America Northwest**

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**2457-1** — Let me start with the fact that in the scoping hearings we suggested that a reasonable alternative with a clear environmental benefit is for the Department of Energy to honor its 1996 promise and the words of the Secretary of Energy at the time “commitment” to end self-regulation of its reactor operations and nuclear processing. And under that commitment, the FFTF reactor, if restarted, and plutonium-238 operations and medical and industrial isotopes would all be independently externally regulated and there are clear differences between the external regulatory standards and their level of scrutiny and the Department of Energy’s. All that we need to do is examine what would happen at Hanford if we use the Nuclear Regulatory Commission requirements for a safety-conscious workplace. One example is that at Hanford we have incident after incident, of contractor retaliation against whistle-blowers. The NRC’s new standards say one, and you’re closed. And they’ve shown they’ve been serious about this with the Millstone Plant in Connecticut.

There are clear environmental benefits from external regulation and it is an example not just of a failure of the EIS, but another broken commitment of the Department of Energy.

**2457-2** — Another environmental commitment that was broken was the one that said in 1995, signed by the Department of Energy that when the reactor is shut down the funds saved shall be used for higher priority clean up activities.

You have a \$200 million clean up compliance gap forecast for 2002. I would call that a higher priority environmental cleanup priority and it’s a clear environmental benefit to meet your TPA commitment from 1995 and I know this is boring, Colette, I’m sorry. Maybe some other people from the Department should have come as well to hear several hundred people, but you also failed to include in this environmental impact statement and in your letters to us, you’ve clearly shown that you do not understand what the possible environmental impact and benefit is of meeting the commitments to use \$30 million a year that was transferred away from NE at the request of the Department of Energy — excuse me, away from the environmental managements account to the NE account for the benefit of keeping the FFTF reactor on stand-by.

**2457-3** — Going back to safety and the benefits of external regulation, throughout this document the Department of Energy assumes incorrectly that the maximum exposed public individual is four miles away from the site. Yesterday, a Republican candidate for Governor in what may have been illegal use of a federal facility, supported by the facility staff, which I assume you’re going to look into, held a news conference at the front gate, illustrating the fact that the public is currently invited to go by the front gate and it is quite likely that the maximum exposed individual is not four miles away, but instead under current plant Hanford site

**Response to Commentor No. 2457**

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**2457-1:** FFTF meets all safety requirements established by DOE. Furthermore, DOE requirements are consistent with those established and applied by other regulatory agencies such as the Nuclear Regulatory Commission. On February 19, 1999, Secretary Bill Richardson sent a letter to the Senator John Warner, Chairman of the Committee on Armed Services to inform him of DOE’s efforts in exploring a potential move toward the external regulation of DOE’s nuclear facilities. Secretary Richardson reported that, based on DOE’s analysis, many of the potential benefits that were expected from external regulation had not been demonstrated, and appear to be outweighed by associated costs and difficulties raised in the pilot projects. As a result, DOE determined that submittal of legislation to exempt certain facilities from Departmental regulations was premature.

**2457-2:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

**2457-3:** Under the current regulatory framework, the facility safety bases are evaluated at uncontrolled locations outside the legal site boundary (or the most highly exposed location over which DOE has no control). Although the public has been allowed road access around FFTF and the 300 Area for many years, DOE can quickly control access in the event of an emergency. The accident analysis presented in the NI PEIS provides a basis for making comparisons between the consequences and risks of accidents associated with facilities identified in each of the alternatives and options presented in the NI PEIS. The accident analysis evaluated the consequences and risks to maximally exposed individuals, both workers and members of the public, during postulated accident scenarios. It

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**Commentor No. 2457: Gerald Pollet (Cont'd)**  
**Heart of America Northwest**

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guidelines, actually invited and encouraged to be standing in the parking lot. In fact, you held a bicycle race staged in the parking lot recently. That's not four miles away.

**2457-4** — The EIS ought to be analyzing the risks of using hydroxylamine nitrate in the plutonium-238 processing. This ought to be considered as a likely explosion risk because we've had an explosion, therefore we know it is likely to occur. But there's no mention of a hydroxylamine nitrate explosion, nor is there a calculation or consideration of the risk of what we call red oil explosion which is why the public in this region — would not allow you to restart the plutonium finishing plant.

**2457-5** — In the early and mid-1990s there was a fight over the restart of Hanford's plutonium finishing plant and in 1994, the Department agreed to shut it down after admitting that it had to prepare an environmental impact statement if it wished to resume operations and that EIS would have to consider the risk of an explosion involving a self-catalytic exothermic reaction involving an organic liquid phase with plutonium nitrate and tributyl phosphate which is exactly the operation that will be used in plutonium-238 operations.

Furthermore, we discovered that an unresolved safety question had been declared and administrative controls put on it in place on the plutonium finishing plant and because of the possibility of such a reaction occurring at relatively low temperatures, far lower than the calciners were designed to operate at and we don't see in the EIS exactly what temperatures you're going to use for the calciners, but it's described as the same process, therefore one would expect that this would be analyzed.

The data is all there and failure to analyze it when you admitted that you had to analyze it in the early 1990s to restart the similar process of the PFP is certain to be a violation of analysis of all reasonable impact, foreseeable impacts.

**2457-6** — You also have ignored the consequences of fires in 306 and 325 at Hanford and there is data published by Hanford about the consequences of those fires and the likelihood of those fires including in your own risk data sheets that is not referenced at all in this Environmental Impact Statement. The consequences of fires in those buildings can be horrifying and the public under the new plan of Keith Klein is to be invited into the 300 Area with no access restrictions. I believe that plan was posted on the wall earlier tonight.

**2457-7** — Now if you are operating 306 and 325 and there are no access restrictions for the public, then you have highly contaminated facilities, facilities where there's out of facility contamination detected and you are going to (a) increase the cost of cleaning up the 300 Area by trying to maintain operations

**Response to Commentor No. 2457**

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would not be necessary to conduct further analyses to determine the specific consequences and risks to an individual member of the public located closer to the source of an accident than that already evaluated in the NI PEIS. Any individual member of the public located in close proximity, regardless of distance, would be expected to experience consequences of a postulated accident that are more severe than the consequences to the general public. In fact, the closer an individual gets to the accident the more severe the consequence. However, the probability that a member of the public would be in close proximity to the facility would be relatively low and the associated risk to that individual would be bounded by the MEI risk. The use of the Hanford facilities, such as the use of the parking lot for a bicycle race or the front gate area for a news conference, would not impact the determination of the location for the maximally exposed individual from exposures related to normal operations. The determination of the maximum exposed individual takes into consideration the amount of time an individual is expected to be located at a particular location. The maximally exposed individual is assumed to be located at the most highly exposed location over which DOE has no control for the entire year (Exposure parameters used in the assessment of the dose to the maximally exposed individual are provided in Appendix H. Section H.2.2.2.) Short term exposures received while attending events in the facility parking areas or at the front gate would yield doses that are significantly smaller than the dose calculated for the maximally exposed individual. Additionally, the maximally exposed individual receives part of the dose from ingestion of food grown in the area, this is not necessarily true for the participants and spectators at the bicycle race or at the news conference. The PEIS has evaluated the risks to members of the public under normal operating conditions and found that over the 35-year operational period no fatalities would be expected among workers or in the general public in the vicinity of Hanford or at distant locations. (See for example sections 4.3.1.1.9, 4.3.2.1.9, and 4.3.3.1.9.)

**2457-4:** The plutonium-238 fabrication/processing facilities evaluated in the NI PEIS can be safely operated to support the nuclear infrastructure missions described in Section 1.2 of Volume 1. The accident evaluation specifically accounted for the chemical processes likely to be used and considered a spectrum of accidents including internal events, external events, natural phenomena, and sabotage and terrorist activities. 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

## Comments from the Portland, Oregon, Public Hearing (August 29, 2000)

### Commentor No. 2457: Gerald Pollet (Cont'd) Heart of America Northwest

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there; and (b) you cannot meet your own requirements and emergency response planning guidelines if the public is now at the front door of the facility instead of at the site boundary.

Throughout the analysis, in fact, today, the public is available to be at the front door of FFTF and at the front door of these buildings, but they're not invited to the front door of anything in the 300 Area, but there's no security badge actually required for the public to go in.

**2457-8** — That is going to change under DOE's current proposal. Throughout the EIS regarding accident calculations and doses for Hanford, the EIS refers to the GENII computer code and the referenced used is 1988. In 1989, an unusual occurrence was declared on site and for the discovery that the GENII air dispersion models to calculate environmental impacts of routine accidental releases of radiation from the Hanford site had a serious error in that it calculated wind directions for exposed public 180 degrees in the wrong direction.

I don't know if you used a changed version but the reference to 1988 version of GENII throughout this document seems to be that you used something with a hypothetical release with an error factor off by two, according to the unusual occurrence.

**2457-9** — Finally, I want to close with much has been said about the fact that a final safety analysis report was done for this reactor before it was started and no reference is found in the environmental impact statement and I'm wondering — if the Secretary of Energy knows about this and who else probably doesn't, the findings of the Natural Research Council 1988 in safety issues at the DOE test and research reactors, page 67, "severe accidents in FFTF have not been assessed using state of the art methods built since the reactor began operation. Uncertainties in post-accident, heat removal and evolution of fission products from molten core debris are given as an example."

### Response to Commentor No. 2457

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alternatives would be small. The solvent extraction process involving the use of tributyl phosphate in hydrocarbon to separate and produce plutonium nitrate solution has been used extensively for years in the United States as well as in Japan, England, and Germany. Under a combination of off-normal conditions, there can be a reaction between nitric acid or nitrates and tributyl phosphate degradation products at higher than normal operating temperatures. Such a reaction could only occur in a heated evaporator or concentrator if there is excess tributyl phosphate impurity or residual in the plutonium nitrate liquid. This scenario will be analyzed as a potential design basis accident in developing the safety authorization basis and associated technical safety requirements for the chemical processing option chosen by DOE.

**2457-5:** The solvent extraction process involving the use of tributyl phosphate in hydrocarbon to separate and produce plutonium nitrate solution has been used extensively for years in the United States as well as in Japan, England, Germany, etc. Under a combination of off-normal conditions, there can be a reaction between nitric acid or nitrates and tributyl phosphate degradation products at higher than normal operating temperatures. Such a reaction could only occur in a heated evaporator or concentrator if there is excess tributyl phosphate "impurity" or residual in the plutonium nitrate liquid. This scenario will be analyzed as a potential design basis accident in developing the safety authorization basis and associated technical safety requirements for the chemical processing option chosen by DOE.

**2457-6:** RPL/306E can be safely operated to support the nuclear infrastructure missions described in Section 1.2 of Volume 1. The accident evaluation considered a spectrum of accidents including internal events, external events, natural phenomena, and sabotage and terrorist activities. Section I.1.4.2.1 presents a postulated fire accident during medical isotope processing and describes the site historical fire data on which the accident frequency is based. Sections 4.3, 4.5, and 4.6 of Volume 1 provide the results of the evaluation of potential health impacts that would be expected from implementation of the alternatives which incorporate RPL/306E. The environmental analysis showed that radiological and nonradiological risks associated with these alternatives would be small.

**2457-7:** The 300 Area has access restrictions and security badges are required for access to the 306-E and 325 Buildings. The 306-E facility is not contaminated and is

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2457: Gerald Pollet (Cont'd)**  
**Heart of America Northwest**

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**Response to Commentor No. 2457**

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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. Under the current regulatory framework, the facility safety bases are evaluated at uncontrolled locations outside the legal site boundary (or the most highly exposed location over which DOE has no control). Although the public has been allowed road access around FFTF and the 300 Area for many years, DOE can quickly control access in the event of an emergency. The PEIS has evaluated the risks to members of the public and found these risks to be below the "level of concern". It is not illegal for members of the public to tour Hanford facilities. Tours of the 300 Area facilities can be arranged by contacting DOE-RL. Visitors are required to attend radiological safety training and to wear dosimeters during the tours. All visitors are escorted by personnel familiar with the facility being toured and trained in facility alarms and emergency responses.

- 2457-8:** The 1988 reference to the GENII code is a reference to the documentation associated with the code, i.e., the code description and user's manual. The version of the code used in the analysis is Version 1 485 dated December 1990.
- 2457-9:** The initial safety analysis report for the FFTF was driven by U.S. Nuclear Regulatory Commission Requirements. Any change in operating missions for the FFTF would require a revised safety analysis report (current format and methods) to be developed.

## Comments from the Portland, Oregon, Public Hearing (August 29, 2000)

### Commentor No. 2463: Lynn Porter Hanford Watch

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**2463-1** — I've been working with Hanford Watch and going to these horrible meetings.

Some suggestions for improving the process next time we could bring in some cots. We could have DOE speak last and we could all leave before they speak.

Or I'd like to suggest that the next time we don't allow anyone from the State of Washington to speak at meetings in Portland. You know, they have their own meetings and they are not entitled to come here and take up time that should be going to Oregonians.

We shouldn't have to stay here this late to have our voice heard. But anyway, regardless, I think we all know that this is just the last stop in this process before we get to the lawsuit and the legislation to cut off their funding. That's the next step.

**2463-2** — I think what we're really talking about here is a need for small amounts of isotopes for research and a possible larger need for isotopes for treatment later, if the research pays off. It seems we need to do the research first and DOE's own advisory committee said FFTF is not suited to produced isotopes for research.

**2463-3** — I've been told that a sufficiently powerful accelerator could produce all of the desired medical isotopes. An accelerator produces very small amounts of short-lived nuclear waste.

**2463-4** — FFTF would produce 16 tons of spent fuel which is high level radioactive waste, dangerous to human and other life for hundreds of thousands of years. And yet this environmental impact statement only evaluates environmental impacts for 35 years. How can you generate immoral waste and only evaluate the environmental impacts for 35 years. To me, that alone means that this environmental impact statement is invalid.

We have nowhere to put this 16 tons, no safe way to dispose of it, no sure way to contain it for the time in which it will be dangerous. Producing high level, long-lived nuclear waste is a bargain with the devil, a burden we have no right to place on our descendants.

**2463-5** — If we really want to use medical isotopes as a weapon against cancer, we should build an accelerator powerful enough to produce them

**2463-6** —...shut down FFTF.

### Response to Commentor No. 2463

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**2463-1:** It is DOE policy to encourage public input on matters of regional, national and international importance as part of its commitment to facilitate a public participation process that is open and unbiased. It is not uncommon or illegal under CEQ regulations for individuals and special interest groups, who may be for or against a particular proposed action or alternative, to attend multiple meetings including those outside their "home" area. However, DOE strives to ensure that the hearing format used serves to promote open and equal representation by all individuals and groups, regardless of the motivation for attending.

**2463-2:** The conclusions presented in the NERAC Subcommittee for Isotope Research and Production Planning Final Report, April 2000 regarding the suitability of FFTF to produce research isotopes in a timely and cost efficient manner were made in the context of the facility producing research isotopes as its sole mission. It would not be cost effective to restart FFTF for the singular purpose of producing small quantities of various research isotopes. However, sustained operation of FFTF for the production of larger quantities of both research and commercial isotopes would be viable if operated in concert with producing plutonium-238 and conducting nuclear energy research and development for civilian applications. As the NERAC report states: "In limited instances, the DOE possesses unique resources, e.g., the high flux of fast neutrons and large irradiation volume in FFTF, that could be utilized for the production of some radioisotopes, but is best suited for commercial interests who might consider its use for isotope production." In recognition of these constraints on its operational feasibility, the NI PEIS only evaluates the use of FFTF when coupled with the other stated missions. While some existing reactors may possess the potential capability or capacity to support research isotope production, as suggested in the NERAC report, it is unlikely that reliable, increased production of these isotopes to support projected needs could be accomplished without impacting the existing missions of these facilities.

**2463-3:** A sufficiently powerful accelerator can produce many of the desired isotopes. No one single irradiation device, nuclear reactor or accelerator, can produce all of the desired medical isotopes. Wastes generated by the construction and operation of the accelerators evaluated for Alternative 3, Construct New Accelerators, are presented in the Draft NI PEIS on Tables 4-118 and 4-125 respectively.

**2463-4:** 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

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2463: Lynn Porter (Cont'd)**  
**Hanford Watch**

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**Response to Commentor No. 2463**

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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.

**2463-5:** DOE notes the commentor's support for Alternative 3, Construct New Accelerator(s), and Alternative 5, Permanently Deactivate FFTF.

**2463-6:** See response to comment 2463-5.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2484: Grant Raven**

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**2484-1** — I feel a contradiction about testifying before the Department of Energy because it seems there's clear evidence that it has lied to the citizens again and again about Hanford and what it is doing, but I'm giving this testimony just to add another voice.

**2484-2** — I support Alternative 5 of shutting down and not restarting the fast flux test reactor.

**Response to Commentor No. 2484**

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**2484-1:** DOE assumes the commentor is concerned about 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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.

**2484-2:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2477: Carlos Reyes*

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**2477-1** — I think we should give all our efforts to cleaning it [Hanford] up...

**2477-2** — I think we should give all our efforts to...shutting it [FFTF] down.

*Response to Commentor No. 2477*

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**2477-1:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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.

**2477-2:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2614: Ann Richardson**  
**[for] U.S. Congressman David Wu, OR**

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**2614-1** — Like you, I believe that not only is the FFTF a burden to taxpayers, but it is also an environmental hazard waiting to happen. We should not spend limited resource dollars restarting an experimental reactor upriver from hundreds of thousands of people who depend on the Columbia River.

**2614-2** — ... we need to insure that clean water is protected by devoting resources to restore the already damaged Hanford environment.

**Response to Commentor No. 2614**

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**2614-1:** DOE notes the commentor's opposition to Alternative 1, Restart FFTF. Included in the PEIS are the results of analyses that show that the risks associated with operating the FFTF are very small. FFTF is located approximately 4.5 miles from the Columbia River. There are no discharges to the river from FFTF and no radioactive or hazardous discharges to the groundwater. Analyses presented in Chapter 4 of the NI PEIS (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) indicate that 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.

**2614-2:** 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 activities to remediate existing contamination at Hanford are high priority to DOE. The Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE remains committed to upholding this agreement. The missions described in Section 1.2 of Volume 1 would not impact ongoing Hanford cleanup activities. The stated missions delineated in the NI PEIS would not have an impact on Hanford cleanup activities. Also, no water quality impacts would be expected as a result of permanent deactivation of FFTF (Section 4.4.1.2.4). 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. Implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2471: David Rosoff*

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**2471-1** — As a reactor operator I would just like to say that I'm grateful for this process existing. I'm grateful for the fact that the DOE comes out to gather public opinion. My only regret is that there's so much emotional outbursts and so many people who to my mind are clearly uneducated about the topics on which they're speaking.

I would just urge the DOE to please make the decision ... which seems the best to it and which will be most effectual in the missions most important to our country.

*Response to Commentor No. 2471*

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**2471-1:** DOE notes the commentor's support of the public participation process. 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.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2448: Don Segna  
Nuclear Medicine Research Council*

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**2448-1** — Now that is why this thing got started. It is not DOE. It's for a group of citizens just like you and I guess you want to say sitting on the other side of the fence and having cancer and they saw the results of this and Fred Hutchinson was the first really tests were done that shows the remissions. And there's been improvement since then.

Now I'd like to agree with this clean up and I like the context that sign does not equate and I think I've already talked to the gentleman over here. FFTF restart kills clean up. I think that's a separate issue.

*Response to Commentor No. 2448*

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**2448-1:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2483: Kathryn Thomason  
Physicians for Social Responsibility**

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**2483-1** — I'm a member of the Physicians for Social Responsibility, Oregon Chapter which is solidly behind Alternative 5, shutting down the plant FFTF.

**2483-2** — Again in the statement that's been produced today, there is no accounting for where you're going to put the high level waste and I think until people come up with a plan, the Department of Energy comes up with a plan for what to do with these wastes and how to store them safely, it's totally irresponsible to continue to create more.

**2483-3** — The second major point I have to say is that we don't trust the word of the Department of Energy. Leaks are occurring. Leaks continue to occur. The cleanup [at Hanford] is not being met in the order and fashion that it ought to be met in and we aren't getting good answers for that ...

**2483-4** — The third thing is the money. It's expensive. I think there are viable alternatives for medical isotopes. I think that the whole issue of the cost of medical isotopes is a whole other department that you guys don't need to worry about because there are resources for it and this does not need to be created for that. The cost of cleanup is going to skyrocket and there was a recent report that you guys had to take out the people who were cleaning it up now because they're not doing the job. So the costs are incredible and so we don't want to incur more of these types of costs.

**Response to Commentor No. 2483**

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**2483-1:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

**2483-2:** The DOE Manual 435.1. Radioactive Waste Management defines high level radioactive waste as "the highly radioactive waste material resulting from the reprocessing of spent nuclear fuel, including liquid waste produced directly in reprocessing and any solid material derived from such liquid waste that contains fission products in sufficient concentrations; and other highly radioactive material that is determined, consistent with existing law, to require permanent isolation." DOE has prepared an implementation guide to DOE M 435.1 to assist in implementing the requirements contained in that manual. For this particular "requirement," the definition of high-level radioactive waste, the guide is intended to facilitate the classification of indefinite waste as to whether or not they are high-level radioactive waste. It is recognized that the definition of high-level radioactive waste is not precise and is essentially a source-based definition that also alludes to concentrations of a given waste stream. Page II-8 of this guide notes that "For the purpose of managing high-level waste under DOE M 435.1-1 [sic], spent nuclear fuel includes spent driver elements and/or irradiated target elements that contain transuranium elements." This statement was included in the guide because the concentrations of long-lived isotopes are likely to be somewhat high during reprocessing and it also meets the source-based definition. As a result of reviewing this guide and to address the comments raised, DOE is considering whether the waste from processing of irradiated neptunium-237 targets should be classified as high-level radioactive waste and not transuranic waste. As a result, the Waste Management sections (Sections 4.3.1.1.13; 4.3.2.1.13; 4.3.3.1.13; and 4.4.3.1.13) of this NI PEIS have been revised to reflect this different classification from what was assumed in the draft NI PEIS. As discussed in these revised sections, irrespective of how the waste is classified (e.g., transuranic or high-level radioactive waste), the composition and characteristics are the same and the waste management (i.e., treatment and onsite storage) for this NI PEIS would be the same. In addition, even if the waste is managed as high-level radioactive waste it would have no impact on the existing high-level radioactive waste management infrastructure (e.g., high-level waste storage tanks), since the high activity waste from processing of the targets would be initially stored and vitrified within the processing facility (i.e., FMEF, REDC, or FDPF).

**2483-3:** DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing Hanford cleanup activities are high priority to DOE. Hanford Site environmental

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2483: Kathryn Thomason (Cont'd)  
Physicians for Social Responsibility*

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*Response to Commentor No. 2483*

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restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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.

**2483-4:** 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. 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.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2470: Kelly Tkachenko*

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**2470-1** — I plead with you, you and your wisdom to shut down FFTF reactor ...

**2470-2** — ... put the money back into the cleaning up of Hanford and Hanford Nuclear Reservation.

*Response to Commentor No. 2470*

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**2470-1:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

**2470-2:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy). This agreement specifies milestones and schedules for restoration of all parts of the Hanford Site. DOE is fully committed to honoring this agreement. The U.S. Congress funds the Hanford cleanup through the Office of the Assistant Secretary for Environmental Management (EM), and the FFTF through the Office of Nuclear Energy, Science and Technology (NE). The nuclear infrastructure missions described in Section 1.2 of Volume 1 would also be funded by NE, which has no funding connection to Hanford cleanup activities. As stated in Section N.3.2, implementation of the nuclear infrastructure alternatives would not divert or reprogram budgeted funds designated for Hanford cleanup, regardless of the alternative(s) selected.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2430: Amber Waldref  
Heart of America Northwest**

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**2430-1** — And the main thing for me that I find that would be in the environmental impact statement that's lacking is the lack of information on where the waste is going to go that's produced with the emissions of plutonium-238 and the medical isotopes.

So I'm concerned about that because more waste to Hanford is not anything any of us want with already leaky tanks. . .

**2430-2** — . . . other problems I have with the EIS is that the Department of Energy waited until this last Friday to disclose the costs of restarting FFTF. It was not included in the original study and also the nonproliferation study which hopefully will be coming out soon that would give us all a better chance to make informed comments during this public hearing process, because without access to this, we're unable to have full disclosure and give our public comment.

**2430-3** — And then finally what I wanted to talk about was that in the — last fall during the scoping hearings one of the issues that people brought up was that they wanted more information on the tri-party agreement on Hanford and that be included in the environmental impact statement and supposedly it is, but I was unable to find it, any substantial information on it, so I would again remind the Department of Energy what this agreement was and that it's a covenant that was signed the Department of Energy, the EPA and the Washington State Department of Ecology that said in force we'll clean up deadlines for Hanford and in 1995 the clean up milestones were added that the FFTF would be deactivated and decommissioned, i.e., shut down, start the cleanup of the reactor and then we could use this money which was at that time \$30 million a year on cleanup. And now the Department of Energy says that with its current budget and the target budgets for the next coming years for cleanup, that they don't have enough money. The budgets are too low to meet the cleanup agreement. . . using the money for cleanup, because we want the Department of Energy to honor this agreement and hopefully move towards full cleanup of Hanford and no more missions.

**2430-4** — So in my mind, I would advocate for Alternative 5 which is shutting down FFTF,

**Response to Commentor No. 2430**

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**2430-1:** 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 treatment, storage, and disposal facilities for the wastes expected to be generated are identified in Chapter 4 of Volume 1 under the Waste Management sections of the NI PEIS, including the waste expected to be generated from the processing of irradiated targets. The cumulative impact tables for waste management in Section 4.8 of Volume 1 have been revised to include the individual site's storage, treatment and disposal capacities for comparison. 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.

**2430-2:** 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. Such ancillary documents need only be made available to the public prior to any decision being made under CEQ regulations (40 CFR Part 1505.1(e)). Nevertheless, DOE mailed 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.

**2430-3:** DOE notes the commentor's concerns regarding the existing cleanup mission at Hanford. Although beyond the scope of this NI PEIS, ongoing Hanford cleanup activities are high priority to DOE. Hanford Site environmental restoration activities are conducted in accordance with the Tri-Party Agreement (i.e., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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. A previous change to the Tri-Party Agreement removed the planned milestone for total deactivation of

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2430: Amber Waldref (Cont'd)  
Heart of America Northwest*

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*Response to Commentor No. 2430*

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the FFTF until its ultimate fate was assessed. That proposed TPA milestone change was the subject of previous public meetings. DOE notes the commentor's support for deactivation of FFTF.

**2430-4:** DOE notes the commentor's support for Alternative 5, Permanently Deactivate FFTF.

## *Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

### *Commentor No. 2478: Jim Walling*

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**2478-1** — The fact that I am here and still do not feel informed on the subject is illustrative of the lack of information available for the public. It is your responsibility to inform the people you intend to put at risk about the nature of that risk. Until you do that, you do not have the right to restart this reactor.

**2478-2** — There's also the issue of trust. Due to the current state of Hanford and the hopeless task of cleaning up the mess that has been made, I simply do not trust those of you who are proposing to restart the FFTF reactor.

**2478-3** — We need another process of evaluating the idea. As it stands, I cannot support it.

### *Response to Commentor No. 2478*

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**2478-1:** DOE is committed to discharging its responsibilities in an open and unbiased manner and providing the public with comprehensive environmental reviews of its proposed actions. 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.

**2478-2:** 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., the Washington State Department of Ecology, U.S. Environmental Protection Agency, and 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.

**2478-3:** This NI PEIS has been prepared in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementation regulations (40 CFR 1500 through 1508 and 10 CFR 1021, respectively). The environmental impacts of reasonable alternatives to fulfill the requirements of the missions were disclosed and evaluated in the NI PEIS. Further, DOE evaluated each environmental resource area in a consistent, unbiased manner across all the alternatives to allow a fair comparison among the various alternatives. This was accomplished through review and evaluation of site-specific information on the environmental conditions prevailing at ORR, INEEL, and Hanford to include a comprehensive analysis of the associated environmental and health risks of each alternative. DOE made every effort to obtain, analyze and disclose all required information to make a decision on expanding nuclear infrastructure.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

**Commentor No. 2422: Grace Weinstein**

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**2422-1** — As taxpayers and citizens, you're asking a great deal of us. I'd like to turn it around and ask as a taxpayer and as a grandmother that you do some things for us.

Instead of spending money on treating cancer, spend that money on cleaning up the environment so we have less cancer in the environment.

And as taxpayers you ask us to send more missions into space. And I ask you to use that money to give everybody a health insurance plan in the United States.

And you ask us to spend taxpayer money to do research that might be used for weapons. And I ask you to demilitarize the United States.

**Response to Commentor No. 2422**

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**2422-1:** DOE notes the commentor's interest in funding for environmental cleanup national health insurance, and demilitarization, although these issues are beyond the scope of this Nuclear Infrastructure PEIS. NASA establishes the need and requirements for space missions. Medical isotope requirements, benefits, and applications are determined by the medical community. 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. The three missions are civilian nuclear energy missions and are not defense-related.

*Comments from the Portland, Oregon, Public Hearing (August 29, 2000)*

*Commentor No. 2472: John Young*

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**2472-1** — I think the FFTF is probably a bad idea. Not for radiological damage as far as public opinion and people you face here. It's just going to compound your problem if you start this reactor up again.

**2472-2** — I do believe that there needs to be some resource of medical isotopes whether it be the new accelerators or new reactors, but I don't know how far the accelerators would go and to affecting the public and endangering them, but from what I know about accelerators is that even though the cost is greater, I think this would be a good way to retain medical isotope production and allay some fears of the public here in Northwest.

*Response to Commentor No. 2472*

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**2472-1:** DOE notes the commentor's opposition to Alternative 1, Restart FFTF.

**2472-2:** DOE notes the commentor's support for Alternative 3, Construct New Accelerator(s), or Alternative 4, Construct New Research Reactor for the production of medical isotopes. Public and occupational health and safety impacts from both normal operations and accidents of these and all other alternatives are presented in Chapter 4.