UNITED STATES OF AMERICA

DEPARTMENT OF ENERGY

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NUCLEAR INFRASTRUCTURE

PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

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SCOPING MEETING

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FRIDAY, OCTOBER 15, 1999

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The meeting was held in the Twin Falls/Pocatello Rooms at the Shilo Inn,780 Lindsay Blvd, Idaho Falls, Idaho, at 7:00 p.m.

PRESENT:

CHARLOTTE JOHNSON, Facilitator

U.S. Department of Energy (DOE Headquarters)

COLETTE BROWN, PEIS Project Manager
Office of Nuclear Energy, Science and Technology

U.S. Department of Energy (Idaho Operations)

RAY FURSTENAU
BRUCE SCHNITZLER
STEVE SORRELL

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P R O C E E D I N G S

MR. STEVEN SORRELL: Good evening. My name is Steven Sorrell, and I work here at the Idaho Operations Office in the Office of Laboratory Development. On behalf of Beverly Cook, manager of the Idaho Operations Office, I want to welcome each and every one of you to tonight's Nuclear Infrastructure Programmatic Environmental Impact Statement Scoping Meeting.

As you will hear in the later presentation, the DOE's nuclear infrastructure, the complex, may be in need of expansion. The DOE currently does not have the infrastructure necessary for the projected isotope needs in both the medical and the industrial communities.

We currently do not have the resources to produce goal quantities of plutonium-238--that's the nonweapons grade isotope of plutonium that is used to heat and power deep space probes for NASA -- and we definitely do not have the nuclear infrastructure to return to our position as the world leader in nuclear technology research and development.

The Idaho Operations Office believes that the INEEL still has a substantial amount of expertise, both in terms of personnel and infrastructure, to assist the Office of Nuclear Energy, Science and Technology, in infusing new

strength into the nuclear research and development and isotope production areas.

To a very large degree, the U.S. civilian nuclear reactor program owes its very existence to the INEEL, formerly known as the National Reactor Testing Station. But the DOE does not operate in a vacuum, and that's why you're here this evening.

We value your constructive comments and criticisms, and we need to hear from you, to help us chart a possible course for expanded nuclear infrastructure here at the INEEL.

So, at this point, I would like, again, to welcome you, and to introduce Ms. Charlotte Johnson, who will be facilitating this meeting.

THE FACILITATOR: Thanks, Steve.

Good evening, and thanks for taking time from your day to be with us here this evening. Welcome to this meeting on the U.S. Department of Energy's Programmatic Environmental Impact Statement for Accomplishing Expanded Civilian Nuclear Energy Research and Development and Isotope Production Missions in the United States, including the Role of the Fast Flux Test Facility.

That's the long version of the title. This programmatic environmental impact statement is also referred to as the Nuclear Infrastructure PEIS, as Steve mentioned.

My name is Charlotte Johnson, and I'll be your facilitator tonight. I'm substituting for our normal facilitator, Jim Parham, who was on his way here from Indianapolis and had some airline difficulties. The earliest he would have been able to get here would have been 7:35 tonight, and that was just a little too late. So, I'm his stand-in for tonight.

My job is twofold. I'm to ensure that you leave here today feeling satisfied that DOE has provided an overview of the proposed action to be analyzed in the PEIS, answer any of your questions about that, as well as provide you an opportunity to give your comments on the scope of the PEIS.

I would ask that you help me to make sure that everyone has a chance to comment and be heard. And I don't think that will be a problem. We have a fairly reasonable-sized crowd tonight. And that means -- well, if you could just extend courtesies to each other as you would like to be treated. That just makes the meeting go much more smoothly.

This is one in a series of seven scoping meetings to be held on the PEIS. Our first meeting was Wednesday night in Oak Ridge, Tennessee. Tonight is our second meeting. We have four meetings next week, in Seattle, Washington; Portland, Oregon; Hood River, Oregon; and Richland, Washington. And the following week, on Wednesday,

October 7, we'll be having the seventh meeting in Washington, D.C.

The comment period began on September 15, 1999, and is through October 31, 1999. And let me just repeat that. The comment period ends on October 31, which is Halloween. Comments that are received after that date will be considered as much as possible.

These hearings are just one way to provide comments to DOE on the proposed scope of the PEIS. You can also send written comments to DOE at the address listed on the fact sheets that you probably picked up at registration. You can also use a toll-free fax or a toll-free telephone line that's tied to an answering machine, or you can mail your comments through the regular mail.

When you registered tonight, you should have received a package of information, including some fact sheets and a registration form. If you want to be on the program's mailing list, you fill out that front page, and we'll make sure you get on the mailing list and get the documents that you request.

In the back of the room, or maybe at the registration desk where Sandy was, there was a copy of the presentation, including a one-page chart that went along with that. And then there are some other documents in the back of the room you may want to

take a minute to look at if you haven't already. Both oral and written comments are given the same consideration by DOE.

MR. BARRY SULLIVAN: Does everybody have a copy of this?

THE FACILITATOR: The presentation for tonight? It looks like slides. Okay. If you don't, Barry will get you one. And Sandy's in the back of the room with them, also.

The other materials I mentioned that are available tonight are the expert panel report, which is a forecast of future demand for medical isotopes. There are the Federal Register notices about this PEIS. The original Federal Register notice. The second Federal Register notice was an amendment to the meeting location for Washington, D.C. And then there are several NASA brochures on the back side of the room, also.

Now, let me tell you a little bit about tonight's format. One purpose for tonight's session is for DOE representatives to give you information on the proposed action, including the proposed alternatives that will be analyzed.

Ms. Colette Brown, from the Department of Energy, Office of Nuclear Energy, is here tonight to present an overview of the National Environmental Policy Act, or NEPA, process, and to give a brief presentation on the programmatic environmental

impact statement. Ms. Brown is the person at the Department in charge of managing the preparation of the programmatic environmental impact statement.

You met Steve earlier. He welcomed us here tonight. We also have Ray Furstenau, who's with DOE here in Idaho. And they may be assisting in answering some questions tonight.

After Colette's presentation, I'll facilitate a segment where you have the opportunity to ask clarifying questions about Colette's presentation. And we'll try to get all questions answered to the extent possible. If there is something that can't be answered here tonight, we'll make sure that somebody gets back to you with an answer to your question.

Then we'll move onto a comment period, where, initially, you'll have five minutes, ten minutes if you're an elected official, to -- or excuse me. We have five minutes for people to give comments. If you are representing -- if you are officially representing an organization, you will have ten minutes. And if we can limit the comments to those time frames initially, so everyone has a chance to give their comment, we'll be glad to come back at the end of the meeting and give you all the time that you need.

Does anybody have any questions or concerns at this point? Can I just get a feel for

how many people, at this point, are thinking that they're going to want to stand up and give a comment?

Okay. Thank you. Okay. We'll see how it goes. It doesn't look like we're overwhelmingly going to have to watch that time limit.

Let me just tell you a little bit more about the comment segment, and then we'll get to Colette's presentation. First, your comments will be recorded by our court reporter, Kim Carpenter. You're not required to state your name or affiliation, but, if you'd like to do so, that's helpful to us. And if you do say your name, if you could spell it, if it's not an obvious name, that will help Kim a lot in making sure that we get the record straight.

There's no set order for speakers, except that I'll first call upon any elected public officials who want to comment. Do we have anybody here tonight who's an elected official?

Okay. Thank you.

And then just when you are ready to comment, if you'd signify by raising your hand, I'll call people randomly from the audience. If you do have a written version of your comments, we'd love for you to leave it with us tonight. If you don't, that's fine, too. But it helps out our court

reporter, also, to go ahead and get those written ones.

If you feel uncomfortable speaking in front of a group or at the microphone, or you don't want to get up to go to the microphone, we can run a mike to you. Or you can speak to Kim, with a DOE representative, after the meeting, and she will take your comment individually.

Finally, when everybody has had an opportunity to give their comments, we'll conclude the formal part of the meeting. But the DOE representatives will be here until our advertised time, or as long as you need them to be, to talk to you and get your comments.

So, thanks for your attention during these brief opening remarks. Does anybody have any questions before we begin?

Okay, I'd like to introduce Colette Brown now, who will tell you about the PEIS.

MS. COLETTE BROWN: Thanks, Charlotte.

Good evening. I see some familiar faces here. I was here last fall, talking to you about another EIS that we had initiated for the production of plutonium-238. So, I will tell you what's happened to that EIS and tell you, obviously, a lot more about this new programmatic EIS.

I have to say that I'm surprised that there aren't -- besides Cathy Whitaker, there aren't

any women in the audience, aside from ourselves, who are part of the group here to meet with you. Oh, there you are. I didn't see you back there. Well, congratulations. I'm glad you're here.

I'm in the Office of Nuclear Energy, Science and Technology, at DOE. I've been there for about ten years. I'm a nuclear engineer, worked in -- most of my career at DOE in the area of space nuclear power, but also in international nuclear safety, and also the management and disposition of our depleted uranium hexafluoride inventory, which has been in the news a lot recently given the situation at Paducah.

The Pu-238 Production EIS that I spoke to many of you about last fall has been canceled as a standalone EIS. However, the entire scope of that EIS, and all the decisions that would have been made as a result of taking that EIS to a Record of Decision, have been consolidated into this programmatic EIS.

And, as I go through tonight's presentation, I think you'll understand why that it's basically because the production of plutonium-238 is one of the various missions that we're considering in this EIS that -- and I'll be talking to you more about that.

(The presentation by Ms. Colette Brown was given)

QUESTION AND ANSWER SESSION

MS. COLETTE BROWN: That's all I had to say this evening, but I will entertain some questions if anybody has any. Yes.

AUDIENCE MEMBER: How were the 100 megawatts arrived at for FFTF?

MS. COLETTE BROWN: It's adequate to meet the mission requirements as we've identified them. We have fuel for -- we can extend a lifetime of the reactor for the fuel we have on-site. It decreases our spent fuel burden. And there was no -- there was no need to operate it at anything greater than that.

Now, what we're proposing to do is operate it at a nominal 100 megawatts, and that's not to say that there could be periodic minor excursions from 100 megawatts. But it was mainly to reduce the spent fuel burden, and the fact that we had -- we had fuel on-site that could at least operate for six years then.

AUDIENCE MEMBER: I'll give somebody else a chance; otherwise, I have another question.

MS. COLETTE BROWN: Oh, go ahead, George.

AUDIENCE MEMBER: Thank you.

You can make assumptions on how much medical isotopes you need. And you've made an assumption on how much plutonium you need. What kind of an assumption have you made on the needs for nuclear energy research? I mean, does it go beyond

relicensing of existing reactors, which seems to be the only position, so far, that the administration has taken officially?

MS. COLETTE BROWN: There are other areas of R&D that we've looked at. And that's all part of an ongoing study that's going to support this EIS.

But other areas include the testing of reactor components and fuels for space reactor technology, which I mentioned. They also include the testing of proliferation-resistant fuels that are under design development. They include the demonstration testing of the new concept for accelerated transportation of waste.

So, there are a number of different R&D areas that could be included in that -- in that generic term of nuclear R&D.

AUDIENCE MEMBER: How about higher burn-up fuel?

MS. COLETTE BROWN: Higher burn-up fuels could be included as part of the mission area, yeah.

Yes, Steve.

AUDIENCE MEMBER: Regarding, I guess, the total DOE nuclear infrastructure, there's some other things that are either happening, or happened, or plan to happen in the next year or so.

For example, I guess that the status of the Brookhaven reactor is still kind of hanging in midair. The HFIR reactor has a major upgrade

planned for next year, multibillion dollars, and an increase in power from 80 megawatts to 100 megawatts. They just did a $14 million project for a beam spur at Los Alamos. My company has just put a 70 Mev LINAC on-line and established essentially a factory for manufacturing other LINACs.

Just all of those fit into the nuclear infrastructure. And I'm just wondering: Are those things being considered in Alternative 2, where you say, look at the existing infrastructure, or are all of those other things being addressed someplace?

MS. COLETTE BROWN: Okay. The expansion of HFIR, the expansion capacity of HFIR, is not something that will be specifically addressed in this EIS, but it does fall into the picture when you look at the second alternative about trying to do what you can to the extent possible within an existing operating facility.

So, if the capacity increases at HFIR based on this -- this upgrade, then that obviously -- that obviously comes into the picture, the second alternative.

HFBR, at Brookhaven, it's my understanding that that will be shut down. I think the latest Defense Authorization Bill language dictates that -- that it will be. LINAC, at Los Alamos, is that what you –

AUDIENCE MEMBER: Well, there's a civilian, or commercial, LINAC that our parent company has. And in the Los Alamos beam spur which is, obviously, accelerated machine-produced devices for some civilian and defense programs possibly, materials testing, and certainly isotope production.

MS. COLETTE BROWN: Well, existing accelerators and the ability to which they can meet these expanded missions are going to be factored into the second alternative. So, I think the answer to your question is yes, unless I misunderstand your question.

AUDIENCE MEMBER: It sounds like – okay.

MS. COLETTE BROWN: Yes, George.

AUDIENCE MEMBER: Isn't Alternative 2 automatically part of the experiment? If you're expanding an infrastructure, you have to include what you're doing in 2 before you start to think about 3 or 4.

MS. COLETTE BROWN: I'm sorry, George. I don't understand your question.

AUDIENCE MEMBER: Well, Alternative 2 assumes that you're going to do as much as you can in existing facilities. Isn't that part of an enhanced program anyway?

I mean, if you -- if you go to 3 -- what I see here is that the "yes" says 3 or 4. And then I think it said 2. Maybe I missed it.

MS. COLETTE BROWN: The Alternative 2, about doing what you can to meet these mission requirements given the infrastructure that you have, is in the decision tree. It's under--it's on the "no" part.

AUDIENCE MEMBER: But shouldn't it be under the "yes" part, as well? Because–

MS. COLETTE BROWN: Well, if you're using what you have, you're not expanding your infrastructure. You're--I mean, the facilities might be upgraded to increase their capacity, but you're not expanding the--we're defining the expansion of infrastructure as either restarting a new facility or building a new facility. That's what I mean by expansion of the infrastructure. You'd be expanding capacity in Alternative 2, but not the infrastructure itself. Yes, sir.

AUDIENCE MEMBER: Why is the DOE in such a hurry to do all this? They just put out the thing in the Federal Register September the 15th, and they're trying to get the comment period October 31. Why are they in such a hurry?

MS. COLETTE BROWN: Well, the schedule that we're on has been predicated by the Secretary of Energy, who wants to make a decision by December.

So, everything -- you know, when we start backtracking away from that, in terms of when the final has to be done and when the draft has to be

out, you know, that's the way the schedule fell out.

Now, the Secretary may want to make this decision prior to the start of the new administration, which is -- which is the reason for the December -- the December 2000 date.

AUDIENCE MEMBER: Yeah. But you effectively leave out some of the free enterprise system when you do that.

MS. COLETTE BROWN: The free enterprise system?

AUDIENCE MEMBER: Yeah. Because that's pretty short, between the time you get it in the Federal Register and then it comes out -- when the whole thing comes out.

MS. COLETTE BROWN: Yeah.

AUDIENCE MEMBER: You're going to miss a lot of people.

MS. COLETTE BROWN: Well, the requirement is that we give 30 days.

AUDIENCE MEMBER: Yeah.

MS. COLETTE BROWN: That's the requirement. We've allotted 45. I don't know that we'll miss a lot of people. I know from experience last year on the plutonium-238 Production EIS, although the comments continued to stream in, I think we got the bulk of them within the first -- you know, the first chunk of the scoping period.

All I can say is I ask you to work with us on this and to try to get your comments in as soon as you can. I think that six weeks is a pretty fair amount of time to -- to provide us with some comments, especially that they don't have to necessarily be written out and mailed in. They can be phoned in or e-mailed.

AUDIENCE MEMBER: Yeah.

MS. COLETTE BROWN: I'm trying to work within the constraints that I've been dealt.

AUDIENCE MEMBER: What kind of money are we talking about here? How much is this going to cost?

MS. COLETTE BROWN: The preparation of the document itself?

AUDIENCE MEMBER: No, no, not the document, but if you go to different alternatives. Do you have any money attached to it?

MS. COLETTE BROWN: Yes. I should have mentioned that in my presentation. Thanks for bringing it up.

In parallel with the preparation EIS, we're going to be preparing the cost analysis report. That will identify the cost of implementing each alternative. And that report will be made available to you at the same time as we release the draft.

So, since cost -- since the costs are one of the major considerations in making the final decision, we felt that the Secretary of Energy would need that, along with the environmental impacts, to -- you know, to help in the decision-making process. So, we do plan on doing that.

AUDIENCE MEMBER: Okay.

MS. COLETTE BROWN: Yes, sir.

AUDIENCE MEMBER: Over the past two years, the DOE and the NRC have been engaged in discussions and activities related to the regulation of some DOE facilities by the NRC, rather than the DOE. And the discussions have centered primarily upon new nuclear facilities.

Is part of Alternative 3 and 4 -- is that new regulatory construct being factored into those two alternatives, or will they default to being regulated by DOE versus NRC?

MS. COLETTE BROWN: That's a good question. At this point I have not considered NRC regulations of the new facility. I'll have to either get back to you on that, or we will factor that in as an official comment as we scope this thing out.

AUDIENCE MEMBER: I have a follow-up question. For Alternative 3 and 4, is there being any consideration made toward, if one of those alternatives is chosen, whether or not it will be

strictly a federal-type project or would it be considered as a privatized-type project?

MS. COLETTE BROWN: That has not been considered at this point. I suspect that would be a point to be discussed if and when one of those two alternatives are chosen. And, as you know, if one of those two alternatives is chosen, then a separate NEPA review will take place, and that should be part of the consideration in that second tier of NEPA, but not here.

AUDIENCE MEMBER: Thank you.

THE FACILITATOR: Could I just interrupt for one second?

If you could move to the mike. I think Kim may be having a hard time hearing the questions. And we do want to make sure that she gets all the questions recorded. If you don't want to stand up and raise your hand, Barry will bring you the mike. Thanks.

AUDIENCE MEMBER: I'm not just quite sure how Alternative 3 and 4 could be evaluated. Did you expect to do a cost analysis on 3 and 4?

MS. COLETTE BROWN: Yes.

AUDIENCE MEMBER: Because it would seem that you haven't got it -- or don't intend to have it more than a generic-type thing. That would be very difficult. A lot of options could go into either one of those things. And the cost and so forth, the infrastructure impact, would definitely

be affected by where it was located and what the entire scope of it would be, or whether there would be two of them. It just seems very difficult to imagine doing a valid cost on those two alternatives.

MS. COLETTE BROWN: You're right. But as a reference design for the generic reactor facility and the generic accelerator facility, we'd be using currently on-the-shelf information.

For example, for the accelerator, we have information on spallation neutron source that's relevant. For the generic reactor facility, we have information on the advanced neutron source. And it's very recent and well developed.

So, for those two options, we'd be developing reference designs for these facilities that have the right attributes to meet, in terms of core volume, in terms of rate of power, in terms of method of cooling, that we have enough information that's on the shelf that I think we can come up with a pretty accurate design that at least envelopes, or at least bounds, you know, what we'd be looking at.

So, that's what we plan to do. And, obviously, that would be -- that would be flushed out at a later date if one of those two alternatives were chosen.

THE FACILITATOR: Any other questions at this time?

AUDIENCE MEMBER: Part of the decision, of course, as to whether you start up FFTF or build a new facility has to do with the alternatives of capacities for existing ones. Has the Navy been approached, and what is their position with regards to a minimum, maximum and desired need in ATR after 2005, the next 35 years?

MS. COLETTE BROWN: No, the Navy has not been approached. But the -- Ray, correct me if I'm wrong -- but the priority will always be given to the Navy as the primary user of the facility here.

And anything we do at ATR by way of these expanded mission requirements would be done here only if they do not interfere with the Navy’s use of that reactor.

MR. RAY FURSTENAU: There are long-term projections or -- as far as, you know, the next ten, 15 years, seem to be very similar to what we're doing right now. There's no –

AUDIENCE MEMBER: So, you're saying that four or five loops or positions in the reactor are going to meet their needs, no matter what, for the next 30 years?

MR. RAY FURSTENAU: Well, I don't know about the next 30 years, but the next foreseeable ten -- ten years, 15 years. I can't answer 30 years.

But, right now, they -- I'm not aware of anything -- I'm not aware of anything that – that would greatly expand or would decrease what they want to do with the ATR. That could always change. But, right now, I'm not aware of anything.

AUDIENCE MEMBER: I just -- I know the Navy is very economically minded, also. And the Navy has flexibility. And you say, of course, we're not going to override them.

But, at the same time, if you give them options with regards to the costs of operating a facility, increasing the power backup, or greater than ATR presently has, is an option. And the reason they don't do it is because it costs so much.

And if you give them alternatives, and so forth, that will make up for the increased costs, they could use -- they're flexible enough to use their facilities differently than they are now, if they're given alternatives.

If we take them as a given in all of this, we're not looking at everything that's possible that could make it a more effective and certainly a more cost-effective decision.

MR. RAY FURSTENAU: Could I?

MS. COLETTE BROWN: Sure.

MR. RAY FURSTENAU: I think I understand your point, Frank. And I think that has to be the

consideration if, let's say, ATR’s chosen to make Pu-238. Then you've got to look up where -- what else needs to be done in that reactor. And that raise of power could be an option, and to make -- make more room for the other missions, or raising power and consolidating it into less – less power loops, for example.

I do think all of those types of options would have to be considered, raising power, changing the number of positions.

AUDIENCE MEMBER: And you've got to talk to the Navy to do that.

MR. RAY FURSTENAU: Exactly.

THE FACILITATOR: Sir, if you would like to make that a comment, please -- if you want to turn that into a comment, please feel free to do that.

AUDIENCE MEMBER: I will.

AUDIENCE MEMBER: I have a couple of comments. One is on the production rate of Pu-238, and the other one has to do with the term "defense" for other materials.

Let me address the second one first. In the DOE community, defense-related usually refers to nuclear weapons. However, Pu-238 has been – or can be and has been used to power black DOT satellites. So, I would suggest that the terminology be very closely defined.

And my first -- my other comment was to do with the production rate of Pu-238. And I have to wonder about the five kilograms per year, since the RTGs that were used on the Voyager systems, I believe, take about four kilograms apiece, and there were three of them, which implies one Voyager-class RTG per year. And I believe the Galileo's are bigger than that.

So, that's -- those are just comments I have.

MS. COLETTE BROWN: Would you like me to respond?

AUDIENCE MEMBER: If you will, yes.

MS. COLETTE BROWN: Okay. The production rate of five kilograms per year was derived by looking at what NASA currently has in its planning books for future missions. And, right now, they have three missions on the books, the last one being in 2007.

If we were to start producing five kilograms per year in the 2000 -- starting about the 2005 time frame, we would have enough material for that 07 mission. We currently have enough in inventory for the 03 and 04 missions.

So, plus, in addition to that, we're developing technologies, conversion technologies that convert the heat to electricity, that are much more efficient than the existing thermoelectrics

that we've been using for years. So, we expect that that will reduce our weight requirement of Pu-238 in HRTG.

But, you're right, it does seem like a low production rate given our history. We used to produce it at Savannah River to the tune of 20 -- you know 20, 25 kilograms per year. We wouldn't justify anything greater than five kilograms per year, so we chose not to.

Now, as far as the National Security Application of Pu-238, you're right, that does exist. And that will continue to go on. But we currently have enough in inventory that's been domestically produced over the years to satisfy all of the foreseeable requirements for a national security user. That's been set aside in our inventory for those missions.

And that's, frankly, what has depleted our inventory for NASA missions, because we can't use what we bought from the Russians for those missions.

So, that's why we've designated this EIS as being the NEPA -- Pu-238 as being for civilian NASA missions only, because we have enough in inventory for anything we see on the national security side.

THE FACILITATOR: Are there any more questions about Colette's presentation before we

move to comments? Okay. So, we'll move to comments. Is that a question or a comment?

AUDIENCE MEMBER: I can phrase these as questions.

In looking at the alternatives, I was wondering whether or not the Department had considered a possible use of commercial light water reactors similar to the tritium production. There's a couple of different methods of which you could introduce the process of producing radiopharmaceuticals in a commercial light water reactor.

The second question is: In the nuclear industry, we are seeing an increase in age of people working in the industry and not a replacement of those people. And we're seeing programs within universities that are waning and the shutdown of many of the university reactors. And I'm wondering if any of those reactors might be used for production of this material or the generation of these radiopharmaceuticals which would enhance the university programs and, in a way, help encourage people to enter the nuclear field, which is, I think, one of the emphasis of the Department's new initiative under the Henning program that we've recently placed at the INEEL.

MS. COLETTE BROWN: Okay. On the issue of commercial light water reactors, we have added that to the scope -- well, let me backtrack.

Last fall, one of the comments that came in during scoping on the Pu-238 Production EIS was for us to consider, in addition to ATR and HFIR and FFTF, the use of commercial light water reactors to produce Pu-238.

And we considered that, and we looked at -- we looked into it seriously, and we added it to the scope of the EIS. So, that's -- that's in scope right now. I should have made that clear.

As far as the use of commercial light water reactors for the production of medical isotopes, at present that is not within the scope of the EIS. The operating cycles of commercial light water reactors are not conducive to the production of medical isotopes.

You know, from Pu-238, the neptunium targets go into the reactor, they stay there for quite a long time before they have to be removed, which is more consistent with shutdown cycles of commercial light water reactors. That is not the case for many medical -- medical isotopes. So, at this point, we do not plan to consider them in the scope of this document for that mission.

Then I forgot your second question. Oh, university reactors. Ray, would you like to comment on the -- the reasonableness of using a university-type reactor for the production of medical isotopes?

MR. RAY FURSTENAU: Well, it depends -- it depends a lot on what isotope you're trying to – it depends a lot on what isotope you're trying to produce. Like a university reactor that produces cobalt-60 or iridium-192 is not practical, and the flux levels are just not high enough numbers.

And I'm not all that familiar with – with all the capabilities that exist in university reactors. But those type of reactors with low flux, low power level, aren't conducive of producing many of the radioisotopes that we're talking about here.

AUDIENCE MEMBER: I was thinking the primary isotopes –

THE FACILITATOR: Sir, could you step up so Kim can hear you? Do you want me to bring a microphone back? Okay.

AUDIENCE MEMBER: One more question. Refresh our memory as to what happened to the other EIS related to Pu-238, mainly the RTG fabrication. I guess that got canceled.

MS. COLETTE BROWN: The one on relocating the RTG fabrication activities out of Mound?

AUDIENCE MEMBER: Yeah.

MS. COLETTE BROWN: That was canceled quite awhile ago and a decision was made to stay at Mound,

AUDIENCE MEMBER: Is that private or is it still DOE?

MS. COLETTE BROWN: No. The RTG fabrication at Mound has remained there as an island, whereas the rest of the Mound site has been privatized. That activity is still going on at the Mound site as a DOE activity.

AUDIENCE MEMBER: Okay. Thank you.

THE FACILITATOR: Any other questions? We'll move -- question, sir?

AUDIENCE MEMBER: Does this EIS have anything to do with the incinerator that is in consideration?

MS. COLETTE BROWN: No, sir. Nothing at all.

AUDIENCE MEMBER: No. Okay. Thank you.

MS. COLETTE BROWN: In fact, I don't even know a whole lot about it, just what I've heard in the press around here.

THE FACILITATOR: Anybody else with questions? Yes, sir.

AUDIENCE MEMBER: The restart of FFTF, it sounds like -- that is Alternative 1 -- is probably the only technical way to go. I do have some questions about what the involvement is of this project with the Nuclear Energy Research Initiative. Are they complementary, contradictory, or what?

MS. COLETTE BROWN: They're neither. The Nuclear Energy Research Initiative is a fairly new initiative in the Office of Nuclear Energy, in which

an amount of money was set aside by Congress for various research initiatives by universities and by our national laboratories.

That is -- that is separate from what we’re proposing to do here. That activity would continue. What we're talking about here, you know, for nuclear research and development, is providing a source of steady state neutrons to do some R&D activities. But NERI continues as a standalone initiative.

AUDIENCE MEMBER: Okay. I was curious about some of the comments here. It says NERI funds innovate -- innovate scientific and engineering research and development in the following areas. One is proliferation-resistant reactors in fuel cycles. And it made me think of the Integral Fast Reactor at the Site, which was just that, proliferation-resistant reactor in the fuel cycle.

The other thing I wondered about is your advanced nuclear fuels. Are there programs being contemplated for testing nuclear fuels, new nuclear fuels, either at the INEEL or other places, that you know of?

MS. COLETTE BROWN: As a part of NERI, or as part of the mission area in here?

AUDIENCE MEMBER: Part of NERI. Part of NERI. If you're not privy to that, I can just –

MS. COLETTE BROWN: I can find out. But there were -- I don't know how many -- different awards made last year. Some came here to Argonne-West and to INEEL. I'll have to get back to you on just which ones were devoted to the testing of advanced fuels and nonproliferation resistant -- or proliferation-resistant fuels. I just don't know off the top of my head.

AUDIENCE MEMBER: Thank you.

THE FACILITATOR: Any other questions? Okay. Thanks. We'll move onto comments. Is there anybody who would like to make a comment for the record tonight? Please, go ahead.

COMMENT SESSION

MR. STEVE LAFLIN: My name's Steve Laflin. I'm the -- the last name's L-A-F-L-I-N. I'm the Vice President of International Isotopes Idaho Inc., or I^4.

Our company has been conducting commercial operations using the Advanced Test Reactor since October of 1996. Since commercialization, we've grown our commercial production business to the point now that we supply over 70 percent of iridium-192 used for radiography in the U.S. ship, aircraft and industrial manufacturing; 100 percent of the cobalt used for stereotactic radiosurgery; and soon to supply 50 percent of the world's requirements for Sr-89 radiopharmaceutical, which is

used to relieve bone pain in patients with several types of terminal cancer.

Aside from the ATR prime sponsor, I currently utilizes most of the neutron radiation facilities in the ATR. We're the largest commercial user of any DOE reactor. And we're the only commercial facility to license Food and Drug Administration use at a DOE laboratory.

We strongly support DOE's initiative to enhance the coordinated management of the very limited steady state neutron facilities in the U.S. This coordination will be critical to the ability of the nation to support the growing needs of these types of facilities for government nuclear research and development or needs for production of certain radioisotopes required for various space and government programs, such as the Pu-238 program.

I strongly caution DOE against, however, using their selection of the proposed alternative on perceived commercial needs. Choosing an alternative such as restarting the FFTF should be based upon the needs of the nation as a whole and not commercial markets. The commercial sector has not identified any immediate or future shortages of radioisotopes that would justify a sizable expense required for the restart of the FFTF or the construct of a new reactor.

Therefore, the decision to explore either of those alternatives should be based upon the values of the nation for conducting nuclear research, our government production programs, such as Pu-238, and not the commercial opportunity.

There are alternatives not described in this NOI that could be made to the nation's existing reactor facilities, such as HFIR and the ATR, that would more than adequately address potential future increased demand for reactor-produced radioisotopes.

In fact, in fiscal year 2000, the DOE has already planned a major upgrade of the HFIR reactor that will increase the reactor's operating power level from 80 megawatts to 100 megawatts and significantly expand the installed capabilities of the reactor to produce research and development or radioisotope production for commercial use.

Using this example, it strongly suggests that the DOE consider making such a comparably small incremental investment in the ATR that will expand that reactor's capability while maintaining compatibility with the existing reactor Prime Sponsor Program.

A key test to verify the validity of a commercial need for radioisotope production in any of the DOE proposed alternatives would be to determine the willingness of the commercial sector to, in fact, share in the cost of the project.

None of the alternatives stated in the NOI would elicit the support of our company for a financial investment. However, the enhancement of the ATR capability to install facilities such as a rabbit system that would enhance isotope production would elicit our financial support, and our company would be willing to join with DOE in supporting that.

Addressing commercial needs in this kind of a manner permits DOE a test, a measure, a method, to complete the process decisions addressing commercial issues and focus primarily on the real mission of nuclear research and plutonium production.

In conclusion, I think there's three major points that have to be taken into consideration in the decision process.

First, in the socioeconomic impact considerations of these alternatives. Aside from the prime sponsor in the ATR, the existing irradiation capability in the ATR is nearly fully utilized by our company. Inclusion of even a minor additional DOE irradiation program could result in the demise of our business and the end of its positive impact to the local economy, employment to the area, and lead to a national shortage of some critical radioisotopes.

Second, in the decision of the EIS process, it should be based upon the needs of the nation, focusing on nuclear research and not upon perceived commercial interests. If a serious commercial interest exists, then it should be tested by measuring the commercial sectors willingness to invest in these programs.

And, third, incremental DOE and commercial investments in the ATR would be sufficient to enhance the reactor radioisotope production needs and meet the requirements of the nuclear medicine industry for the foreseeable future.

THE FACILITATOR: Thank you. If you have an extra copy of your written comments, or if you're going to submit them later, that's great, too.

MR. STEVE LAFLIN: Okay.

THE FACILITATOR: Anybody else who would like to make a comment? Yes, sir.

MR. MARTY HUEBNER: My name is Marty Huebner. I'm a resident of Idaho Falls. I'm a licensed professional nuclear engineer. I'm the newsletter editor for the Idaho Academy of Science Newsletter. And I belong to about 20, probably, environmental organizations. I looking at this -- and I'm also a space buff. I have been interested in the nation's space program ever since its inception. And I strongly support the restart of

the FFTF, particularly to make the plutonium that's needed for the space program.

I have already made an opinion about the relative use for -- for the medical isotopes. But I have several friends who would not be living today if it hadn't been for medical isotopes. So, I'm a strong supporter of that, no matter who funds it. That ends my remarks.

THE FACILITATOR: Thank you, sir. Anybody else?

AUDIENCE MEMBER: We don't want to pick on you, Colette, but the fact that it took four weeks for DOE to come out here to put on its scoping meeting and then leave us two weeks to make comments, I think, is some indication that there are some groups that are interested in an extended period for making comments.

And we still strongly urge that there be at least a 15-day extension. It doesn't only include groups like ours, Coalition 21, but the Chamber of Commerce who can't move on a short cycle, the Citizen's Advisory Board, which doesn't meet until November. So, I think there's more than one group out there that would like to see an extension.

THE FACILITATOR: Thank you.

Another comment? Another comment? Okay. We'll break back to informal discussion. We'll be here until nine o'clock. Please feel free to talk

to any of the program people. Again, I thank you for coming tonight, taking time from your Friday night, the beginning of your weekend, to be here to hear Colette tell you about the Department of Energy's Programmatic Environmental Impact Statement.

Thank you.

(The scoping meeting was concluded.)

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REPORTER'S CERTIFICATE

STATE OF IDAHO)
) ss.
County of Bonneville)

I, KIMBERLY CARPENTER, CSR, a Notary Public in and for the State of Idaho, do hereby certify:

That said public scoping meeting was taken down by me in shorthand at the time and place therein named and thereafter reduced to typewriting under my direction and control.

WITNESS MY HAND AND SEAL this the 23rd day of October, 1999.

(Signature)

_____

Kimberly Carpenter, CSR,
Notary Public in and for the State of Idaho,
residing in Idaho Falls, Idaho.

(Seal)

My Commission expires: Perpetual.

Certificate