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Title: Public Meeting for the Construction Permit for

the Proposed SHINE Medical Radioisotope

Production Facility: Evening Session

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NUCLEAR REGULATORY COMMISSION

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DRAFT ENVIRONMENTAL IMPACT STATEMENT

Construction Permit for the Proposed

SHINE Medical Radioisotope Production Facility

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WEDNESDAY, JUNE 10, 2015

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ROTARY BOTANICAL GARDENS

1455 PALMER DRIVE

JANESVILLE, WISCONSIN 53545

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The above-entitled matter commenced pursuant to Notice before Alison Rivera, Facilitator, at 7:00 p.m.

PRESENT:

NRC STAFF:

Alison Rivera, Facilitator, NRC

Mirela Gavrilas, Deputy Director

Division of Policy & Rulemaking

Michelle Moser, Environmental Project Manager

Division of License Renewal

ALSO PRESENT:

Randy Howell, Department of Energy

PROCEEDINGS

(7:00 p.m.)

MS. RIVERA: Good evening, everyone. My name is Alison Rivera, and I will be the facilitator for this evening's meeting, which is to provide comments on the draft environmental impact statement prepared by the NRC staff as part of its review of potential environmental impacts for a proposed medical radioisotope production facility here in Janesville, Wisconsin.

You may recall, or even have attended, the NRC scoping meeting held about two years ago. The purpose of that meeting was to collect input on what should be analyzed as the staff prepared this draft environmental impact statement, or EIS.

Hopefully, everyone has had a chance to sign in, and for those who wish to speak during the public comment period of tonight's meeting, you have had the opportunity to turn in a yellow card. If you haven't signed in, the sheets are near the entrance, and I have blank cards that I can bring around to anybody who would like one. We also have written comment forms out there if you prefer to write your comment, and those comments will be treated the same as anything received orally today.

For some logistical information, the restrooms are located out these side doors to my left, and to the right. You can see the exits lighting the door, or lighting the side, or the way you came in. The agenda for this meeting includes introductory remarks by Mirela Gavrilas, deputy director of the division of policy and rulemaking in the office of nuclear reactor regulation at the NRC, followed by Randy Howell from the Department of Energy.

Following this, the NRC staff will present the preliminary conclusions from the draft EIS. When the presentations conclude, we will move right into the public comment period. First, before turning it over to Mirela, I would like to go over a few ground rules for this meeting. First and foremost, please be respectful of others, and we'll ensure that all participants who wish to have a chance to comment have an opportunity to do so.

Also, please turn off all electronic devices or put them on vibrate. We certainly understand if you need to take a phone call, but if that happens please step out into the lobby. In addition, you may have noticed that this meeting is being recorded, and minimizing the background noise and side conversations will help the court reporter produce an

accurate recording of the meeting.

In that same vein, when speaking we do ask that you use the microphone. Unfortunately we only have this one, so we'll bring it around to you. Finally, the NRC is always looking to improve our meetings, and your feedback is important to us. We have some postage-paid public meeting feedback forms on the literature table, and you can fill them out and give it to an NRC staff member, or drop it in the mail.

With that, I would like to turn the meeting over to Mirela Gavrilas.

MS. GAVRILAS: Thank you, Alison. Good evening. On behalf of the staff, it's my pleasure to welcome you to this public meeting. I want to express my thanks for bringing us out here on such a beautiful day in this gorgeous setting. As Alison mentioned, we are here tonight to talk about the draft environmental impact statement for SHINE.

In spring of 2013, SHINE submitted to the NRC an application for a facility that will produce Molybdenum-99, and we've been reviewing that application ever since. Our review consists of two parts. The first thing that we do is we review the application for a construction permit, and our environmental impact statement is being prepared as

part of that review. The next step is a review of the operating license, and that's going to follow the issuance of the construction permit.

So the environmental impact statement, the draft that's being presented to you tonight, is the staff's work. We will take your comments, and comments we receive from all other sources, and work them into the document, and release the final impact statement.

A bit of background on the environmental impact statement. We, the NRC, are required to complete it under the National Environmental Policy Act. In addition to that, because we are working with the Department of Energy, who is also a stakeholder in the process, and that was mandated by the American Medical Isotope Production Act.

One more remark about the environmental impact statement. Even though it's done now before we issue a construction permit, it looks at the entire life cycle of the facility. So it looks at the construction, the operation and the decommissioning of the facility. You'll hear much more about that from Michelle in a few minutes.

I'll take a moment and introduce the NRC staff. The review of SHINE, because it's novel technology and because it's quite complex, engages all

practically all of the offices in the Nuclear Regulatory Commission. We have a few experts throughout the room that are here to assist with this presentation.

Let me start with, you already met Alison.

I have Al Adams, who is the chief of the research and test reactor licensing branch. Michelle Moser, who has spearheaded the environmental review for SHINE. Kevin Folk, a specialist in water resources and had a major part in the development of the report that we'll discuss tonight. Steve Lynch is the project manager for SHINE, in general, and he coordinates all activities related to SHINE, and he is in charge of the safety review.

Alex Sapountzis is a senior project manager and security specialist. Victoria Mitlyng, public affairs officer from our offices in Chicago, and Chuck Teal, who's also from NSIR. That's the staff from the NRC here tonight.

With that, I'm going to ask Randy Howell from DOE to come and make a couple of remarks. As I said, they're our partners in the development of the environmental impact statement. After that, Michelle will walk you through it.

MR. HOWELL: Thank you. So, as she

mentioned, I'm Randy Howell from the Department of Energy, National Nuclear Security Administration's Moly-99 program, where I support the domestic projects. Our agency, under the American Medical Isotopes Production Act, has a mandate to support the acceleration of projects in the U.S. to establish Moly-99 production without the use of highly enriched uranium.

So, to do that, we are working with SHINE, among others, to support their project providing some matching funding and some technical development I'm also here with my colleague, Tom, who support. manages the technical development side of things. Since we provide funding, DOE is also mandated under the National Environmental Policy Act to perform an assessment like this, but in order to duplication, the NRC is leading it, effectively.

responsibilities on our side of the house and, in theory, we'll adopt the same document once it's complete. Trying to be streamlined government here. But I don't have a major role in this forum, but if you have any questions on our side of the house, I'm obviously willing to chat with you. I'll turn it over to Michelle Moser who is the, well, she can tell you

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who she is.

MS. MOSER: Thanks, Randy. I am Michelle Moser. I'm the environmental project manager for the SHINE project. I want to thank you all, again, for coming out here during your busy evening. I hope the information we provide to you today will help you understand what we've done so far, and also, what part you can play as we finalize this document.

I'd like to start off by briefly going over the agenda and purpose of the presentation. Today I'm going to discuss the NRC's regulatory role. I'll provide a brief summary of the construction permit review process. I'll provide an overview of the draft environmental impact statement, which you might hear me refer to as an EIS.

I'll also discuss the preliminary findings of our environmental review, which addresses the impacts associated with construction, operations and decommissioning. Lastly, I'll describe how you can submit comments. As Alison mentioned, after my presentation is the most important part of the evening, and that is when you all will have the opportunity to provide comments.

NRC regulates the commercial use of nuclear materials and facilities. For example, NRC

conducts environmental and safety reviews for nuclear power reactors, research and test reactors, and medical isotope production facilities. In all aspects of NRC's regulation, our mission is threefold: To ensure adequate protection of public health and safety; to promote common defense and security, and to protect the environment. Next slide.

The National Environmental Policy Act is the regulation that is the basis for why we are conducting this environmental review. This establishes a national policy for considering environmental impacts, informing federal decision makers, and disclosing environmental impacts to the The NRC's environmental regulations, public. implementing the requirements of National Environmental Policy Act, are contained in 10CFR Part 51.

Within 10 CFR Part 51 describes the environmental review process, such as when to prepare an environmental impact statement. I will now briefly describe the construction permit review process. This flowchart highlights the two parallel reviews associated with a construction permit application.

One is the safety review, which Steve Lynch is in charge of, and the other is the environmental

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review, which we'll be talking about in more depth today. In addition to the safety and environmental reviews, an independent review is performed by the advisory committee on reactor safeguards, commonly referred to as ACRS.

The ACRS is an independent group of scientists and nuclear safety experts who serve as a consulting body to the Commission. The ACRS reviews the construction permit application and the NRC staff's safety evaluation report. The ACRS reports their findings and recommendations to the Commission. Typically, these meetings are open to the public, and I'll talk about them in a little more detail in a moment in terms of how they relate to the SHINE review.

Additionally, a mandatory hearing will be conducted by the Atomic Safety and Licensing Board, an adjudicatory panel, in support of the review of the construction permit application. The Commission considers the outcome of the hearing process in its decision on whether or not to issue the construction permit. I'm now going to go over some important milestones for the safety review process. As Mirela mentioned, SHINE submitted the construction permit application in 2013, and NRC published notices of acceptance shortly afterwards.

The NRC staff has been reviewing the application since 2013. As part of this review, the NRC staff has issued requests for additional information in cases where the staff is seeking clarification on the information that was submitted, or additional details of information that was not included in the application.

The NRC staff will begin publishing portions of the safety evaluation report later this month, and will be presenting to the ACRS throughout the summer. Meeting notices will be posted to the NRC website, and we encourage you all to continue to check the website in order to participate in these meetings. The NRC staff expects to publish the final safety evaluation report in October of 2015.

As described on the previously slide, part one of the SHINE construction permit application was received in March, 2013, and that's the part that included SHINE's environmental report. A public meeting was held here about two years ago, on July 17th, as part of the environmental scoping process. Some of you may have attended that meeting, which the purpose of that meeting was to gather comments from the public, and local, State and Federal agencies in order to determine what important issues we should look at

within the environmental impact statement.

We responded to all the comments received, and any of the comments that were within the scope of the environmental review, are responded to within Appendix A in the draft EIS. The draft EIS was published on May 11th, and we are currently accepting public comments through July 6th. Today's meeting is being transcribed, and the comments provided here will be considered in the same way as any written comments that are received, whether we receive the written comment tonight, through the mail, or through regulations.gov.

Once the comment period closes, we will develop the final environmental impact statement, which we expect to publish in October 2015. The final environmental impact statement will include responses to all comments received, and will update the analyses as appropriate.

I'm now going to go over an overview of the environmental impact statement, which includes a purpose and need section, a description of the affected environment, the environmental impacts of the proposed action, as well as alternatives to the proposed action, and the NRC staff's preliminary recommendations.

As Randy previously mentioned, there are

two agencies, both the NRC and DOE that are preparing this EIS. Therefore, there are also two federal actions. The proposed federal action for the NRC is to decide whether to issue a construction permit, under 10 CFR Part 50, that would allow construction of a medical radioisotope facility.

If the NRC issues the required permits and licenses, the proposed federal action for the Department of Energy is to decide whether to provide additional cost-sharing financial support to SHINE under a cooperative agreement to accelerate the commercial production of medical radioisotopes without the use of highly enriched uranium.

The purpose of and need for this proposed federal action is to provide a medical radioisotope production option that could help fulfill the need for a domestic supply source of medical isotopes. For the past two decades, the U.S. has relied on imported medical radioisotopes. Global shortages of medical radioisotopes in 2009 and 2010 have highlighted the need to ensure a reliable domestic supply. The NRC, however, does not have a role in the planning decisions as to whether a particular radioisotope production facility should be constructed and operated.

The affected environment describes the

existing environment on and surrounding the proposed SHINE site. For example, in Chapter 3 of the EIS, the NRC staff describes the existing land uses on and near the proposed site, which includes agricultural fields, open spaces and developed areas. Some environmental impacts could occur beyond the proposed facility, such as air emissions. Therefore, the NRC staff also described the existing environment within five miles of the proposed site.

Chapter 4 of the environmental impact statement describes the potential impacts from construction, operations and decommissioning. The NRC established three levels of significance for potential impacts: small, moderate and large. Small impacts occur when the effects are not detectable, or are so minor that they do not noticeably alter any important attributes of the resource.

For example, the NRC staff determined that the proposed action would result in small impacts on ecological resources because although construction activities may disturb some wildlife and birds, there is adequate similar habitats nearby, such as other agricultural fields. In addition, once construction activities are complete, birds and wildlife could return to the site.

A moderate impact occurs when the effects are sufficient to noticeably alter, but not to destabilize important attributes of the resource. For example, the NRC staff determined that there could be noticeable delays during peak hour traffic at intersections along U.S. Highway 51.

A large impact occurs when the effects are clearly noticeable, and are sufficient to destabilize important attributes of the resource. As I will show you on the next slide, the NRC staff did not identify any large impacts associated with the SHINE project.

As you can see on this slide, the NRC staff determined that the impacts would be small for all except for transportation. resource areas transportation, we determined that the impacts could be moderate during construction, mostly due to the 11 percent increase in traffic on U.S. Highway 51. During operation, the impacts would be small to moderate due to a slight degradation of service at the intersections of State Trunk Highway 11 and U.S. Highway 51. decommissioning, the impacts would be moderate due to the additional vehicles from workers, truck deliveries and waste shipments. This could noticeably increase traffic along U.S. Highway 51.

In addition to the National Environmental

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Policy Act, the NRC may address other regulatory requirements within its environmental impact statement. For example, the NRC staff conducted a review of potential impacts to threatened and endangered species, as required under the Endangered Species Act. Under this act, the NRC must determine whether threatened and endangered species could occur on the proposed site and, if so, how the proposed action could affect these species.

Under the National Historic Preservation Act, the NRC staff first determines whether historic properties would be affected by the proposed action and, if so, if the effects would be adverse. For the staff's review of environmental justice, the NRC staff examines whether the proposed action could have disproportionately high and adverse impacts on minority or low-income populations.

action would have no effect on threatened and endangered species. This determination was made, in part, because the proposed site does not provide suitable habitat for any threatened or endangered species. The NRC staff also determined that the proposed action would have no adverse effects on historic resources, and no disproportionately high and

adverse impacts on minority or low-income populations. Next slide.

The NRC staff also considered cumulative impacts. Cumulative impacts are the overlapping impacts of the proposed action, and other past, present and reasonably foreseeable activities. These activities are unrelated to SHINE, such as climate change or future urbanization. For this review, the NRC staff determined that the potential cumulative impacts would be moderate for ecological resources. This is primarily due other activities unrelated to SHINE, such as the impacts from climate change on ecological resources and agricultural runoff.

As previously mentioned on the last slide, the impacts from just the SHINE project would be small on ecological resources. For traffic, the NRC staff determined that the cumulative impacts would be small to moderate primarily based on the impacts from the proposed SHINE project. The NRC staff determined that the cumulative impacts to all other resource areas would be small.

Chapter 5 of the environmental impact statement compares the environmental impacts of the proposed action with various alternatives. For this analysis, the NRC staff examined two alternative sites,

Chippewa Falls and Stevens Point. Both of these sites were considered in SHINE's environmental report as part of its site selection process.

The NRC staff found slightly higher environmental impacts at both alternative sites. Chippewa Falls, the staff determined that the impacts could be small to moderate for noise and transportation, and small for all other resource areas. At Stevens Point, the NRC staff determined that the could be small to moderate for visual impacts resources, noise and transportation, and small for all other resource areas. If you remember, at the SHINE site, the impacts were small for all resource areas, except for transportation.

The NRC staff also examined one technology, was alternative which linear accelerator-based. For the purpose of this analysis, the NRC staff used the environmental parameters in DOE's environmental assessment for the NorthStar production facility radioisotope because this commercial entity was awarded a cooperative agreement by DOE, and because sufficient environmental data exists for this proposed technology.

Our analysis looked at the hypothetical situation that a facility using linear

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accelerator-based technology was constructed at the proposed SHINE site. We determined that the impacts would be the same as what we find for the proposed SHINE facility.

Lastly, the NRC staff evaluated the no-action alternative, or the impacts if the NRC staff denied the construction permit application. The staff found that the impacts would be small for all resource areas. This alternative, however, does not fill the stated purpose and need.

The NRC staff's preliminary recommendation is that, after weighing the environmental, economic, technical and other benefits against environmental and other costs, and considering reasonable alternatives the NRC staff recommends the issuance of the construction permit to SHINE, unless safety issues mandate otherwise. Next slide.

I would like to emphasize that the environmental review is not yet complete. Your comments received today, and all comments received by July 6th, will be considered as we develop the final EIS. These comments, and any comments that are within the scope of the environmental review, can help to change the staff's findings.

The final EIS will contain the staff's

final recommendation on the acceptability of issuing the construction permit based on the work we've already performed and any new information that we receive in the form of comments or otherwise during the comment period. The NRC staff will address written comments in the same way we address spoken comments that are received today.

You can submit your written comments either online, sending it to us by mail or writing it down on the paper that we have outside. As we mentioned before, I'm the primary contact for the environmental review, so please feel free to contact me if you have any questions regarding the environmental review. Steve Lynch is the primary contact for all other aspects of the review.

A paper copy of the draft EIS is currently at the Hedberg Public Library. I believe we have a few extra copies outside if you would like one. You can also find electronic copies of the draft EIS online, and we have a few CDs outside. This concludes my presentation, and I'm now going to turn it back over to Alison.

MS. RIVERA: Thank you, Michelle, and thank you everyone for your thoughtful attention during the presentation. We're now going to move into the

2.1 1 public comment period. But, as I did not receive any 2 yellow cards for pre-registered speakers, before I go over the instructions for speakers, I wanted to see if 3 4 anyone had decided to speak. I'm seeing none, so I will remind you that 5 there is opportunity, if you don't wish to speak, for 6 7 writing your comments outside or through submissions of any of the ways that were listed on the slides. 8 Again, we appreciate your time and attention, and 9 10 coming out here to the public meeting on the draft environmental impact statement for the proposed SHINE 11 12 medical radioisotope production facility. 13 Comments will continue to be accepted 14 through July 6th, and if anyone did not receive a copy 15 of the draft environmental impact statement, and would 16 like to be added to the distribution, please see 17 Michelle after the meeting, and NRC staff may be around 18 for a few minutes afterwards. I'm now going to turn 19 over the meeting to Mirela for some closing remarks. MS. GAVRILAS: I would like to thank 20 21 everybody for being here, and you know where to reach 22 If we can answer any questions, feel free to us. 23 contact Michelle

(Whereupon at 7:20 p.m.

meeting was concluded.)

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