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the Proposed SHINE Medical Radioisotope

Production Facility: Afternoon Session

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UNITED STATES OF AMERICA 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 2:00 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

(2:00 p.m.)

MS. RIVERA: Good afternoon, everyone, and welcome. My name is Alison Rivera, and I will be the facilitator for today's meeting. First, I want to welcome you and thank you for participating in this 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 the NRC was here two years ago approximately. In that meeting we were collecting input on what should be looked at for this draft environmental impact statement. Also, that was a scoping meeting. The purpose of today's meeting, now that the analysis has been done, is to provide comments on the draft document.

Hopefully, everyone has a chance to sign in, and for those who wish to speak during the public comment period, you've had the opportunity to turn in a yellow card. If you haven't signed in, the sheets are near the entrance as you leave, and I have blank cards with me that I can bring around if you raise your hands. I do have all of the cards that were turned in prior to

this meeting starting.

For those of you who do not wish to speak, but still wish to provide comments, there are blank papers out there that you can write your comments, and they will be treated in the same regard as anything that is spoken today in this meeting.

Some logistics before going over the agenda; the restrooms are located outside of the side door and to the right. You can see the exits lighting the side of this wall or as you came in. If we do have to evacuate, in the unlikely event, please follow directions from security officers.

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 environmental impact statement.

When the presentation concludes, we will move right into the public comment period. I would like to go over a couple of ground rules for this meeting. First and foremost, please be respectful of others, and that will ensure that all participants who wish to do

so have an opportunity to comment.

Also, please turn off all electronic devices or put them on vibrate. If you need to take a phone call, I certainly understand that, but please go out into the foyer to do so, so that the audience can continue to hear the presentations and comments.

In addition, you may have noticed that this meeting is being recorded. So 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 I do ask that you use a mic, and I will bring it around to you if you have filled out a yellow card to speak.

Finally, the NRC is always looking for ways 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 one out here 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. Thank you for coming here today. I'm Mirela Gavrilas. Like Alison said, I'm the deputy director for policy and rulemaking in the office for nuclear reactor regulation

in the NRC. It's my pleasure to welcome you all today on behalf of the NRC staff.

We're here because in the spring of 2013 SHINE Medical Technologies submitted an application to the NRC. They proposed to build a facility in Janesville, Wisconsin, so the meeting is being held here. What the NRC will do with that application is it will review it in two phases. The first one is the review for the construction permit, and the second one is the review of the operating license.

As part of the construction permit review, the staff is producing an environmental impact statement. This statement looks at how the activities around the SHINE proposed facility are going to impact the environment. Our review looks at how it's going to affect the environment during construction, operation, and even through decommissioning.

So our purpose in being here today is to interact with everybody and present our findings today, the preliminary findings that are documented in the draft environmental impact statement, and to seek comments from the community that we will, subsequently, address before we finalize the environmental impact statement.

I just want to mention that the review of

the SHINE facility is a priority for the NRC, and the environmental review is under the National Environmental Policy Act and, moreover, the American Medical Isotope Production Act has tasked us to work with the Department of Energy in generating the environmental impact statement.

SHINE is novel technology, and the review of SHINE involves lots of staff in the NRC. There are quite a few of those staff here today, and I would like to introduce them to you. With us we have Al Adams, who is the chief of the research and test reactor licensing branch.

You'll soon meet Michelle Moser, who is the project manager for the SHINE environmental review. We have Kevin Folk, who's helping us out with the slides. Kevin is a water resource specialist, and he's also a contributor to the environmental impact statement. We have Steve Lynch, who is the project manager for SHINE for the safety review of the SHINE facility.

Alex Sapountzis is a project manager and security specialist with the NRC. We get support today from Victoria Mitlyng, public affairs officer from Region III. We also have from Region III, Harral Logaras, who's the government liaison officer, and Chuck Teal.

1 With that, I'm going to turn it over to 2 Randy Howell from DOE. He's going to make a couple of comments 3 before Michelle gets 4 presentation. 5 MR. HOWELL: Hello. My name's Randy Just a quick note for context, the Department 6 7 of Energy, as Mirela said, under the American Medical Isotopes Production Act of 2012, or AMIPA as we call it, 8 has a program to support companies that are trying to 9 10 produce Molybdenum-99, Moly-99, in the U.S. So we are working with SHINE, providing 11 12 some funding to them to support their project to produce 13 Moly here in Janesville. Under AMIPA we have a role, and under NEPA we have a role to cooperate with the NRC. 14 15 So I don't have a formal role in the NEPA process, per 16 se. 17 I'm just here because of the Department of Energy's role in cooperating with SHINE. But if you 18 19 have any questions on our involvement, I'm happy to take I just won't be directly involved in most of 20 21 Anyway, I'll turn it over to Michelle Moser to 22 talk about the environmental side. 23 Good afternoon everyone. MS. MOSER: Thank you, Randy. I also want to thank everyone for 24

taking the time out of their day to attend this meeting.

As Mirela mentioned, my name is Michelle Moser, and I'm the environmental project manager for the SHINE project. I hope the information we provide you with today will help you understand what we've done so far, and also, the role you can play in helping us finalize this document.

I'd like to start by going over the agenda and purpose of my presentation. First, I'll briefly describe NRC's regulatory role. I'll provide a brief summary of the construction permit process. Then next I'll move into an overview of the draft environmental impact statement, which you might hear me refer to as an EIS. So if you hear EIS, think environmental impact statement.

I'll summarize the preliminary findings that we documented in the EIS, and lastly, I will describe how you can submit comments. At the end of the presentation, which is the most important part of this meeting, there will be an opportunity for people to provide comments.

NRC was established to regulate civilian use of nuclear materials and facilities. For example, the 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.

Environmental reviews of construction permit applications are performed in accordance with the National Environmental Policy Act, which you've heard us refer to as NEPA. NEPA establishes a national policy for considering environmental impacts, informing federal decision makers, and also disclosing environmental impacts to the public. The NRC's environmental regulations, implementing the requirements of NEPA, are contained within 10CFR Part These regulations contain information such as when 51. to prepare an environmental impact statement.

I will now briefly go over the construction permit review process. This flowchart highlights the two parallel reviews associated with a construction permit application. One being the safety review, which Steve Lynch is in charge of, and one being the environmental review. In addition to these two reviews, there's an independent review performed by the advisory committee on reactor safeguards, commonly referred to as ACRS.

The ACRS is an independent group of

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scientists and nuclear safety specialists 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 directly to the Commission.

Typically, these meetings are open to the public, and I will be talking about them again on the next slide, specifically for the SHINE project. 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 grant, or to issue the construction permit.

I'm now going to describe the current status of the safety review, followed by the status of the environmental review. As Mirela mentioned, SHINE submitted a construction permit application in two parts in spring of 2013. NRC published notices of acceptance shortly thereafter.

The NRC staff has been reviewing the information in the construction permit application.

As part of this review, the NRC has issued requests for

additional information in order to seek clarification on the information included in the application, or to seek additional information.

The NRC staff will begin publishing portions of the draft safety evaluation report later this month, and will be presenting to the advisory committee for reactor safeguards throughout the summer. Meeting notices will be posted on the NRC website for these meetings. So we encourage you to look on the website for these notices. The NRC staff expects to publish the final safety evaluation report in October of 2015.

I'm now going to talk about the status of the environmental review process. In March of 2013, SHINE submitted part one of its construction permit application, which included SHINE's environmental report. A public scoping meeting was held here about two years ago, on July 17th as part of the environmental scoping process.

As Alison mentioned, this meeting was held in order to gather input from the public on the type of issues that should be considered in the environmental impact statement. Some of you may have attended that meeting and provided comments to us. Comments that were given at the scoping meeting or sent in through

regulations.gov or through the mail that were within the scope of the environmental review are included in Appendix A of the draft environmental impact statement, and we have responded to those comments.

The draft environmental impact statement was published on May 11th, and we are currently accepting public comments on this document through July 6th. Today's meeting is being transcribed, and comments provided here will be considered in the same way as written comments that are submitted to the NRC. Once the comment period closes, we will develop the final environmental impact statement, which we expect to publish in October. The final environmental impact statement will include responses to all comments received during this comment period.

I will now provide an overview of the environmental impact statement, including a discussion of the purpose and need of the proposed action, the affected environment, the impacts of the proposed action, and alternatives to the proposed action, and the staff's preliminary findings and recommendations.

As Randy mentioned, there are two agencies involved developing this environmental impact statement; both the NRC and the Department of Energy. Because there are two federal agencies, there are also

two federal actions. The proposed federal action for the NRC is to decide whether to issue a construction permit, under 10CFR 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 DOE 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 source of medical isotopes. For the past two decades, the U.S. has relied on imported medical radioisotopes, and there have been shortages in the past few years. 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. Rather, we are a regulatory authority that will review the application. Next slide.

The affected environment within the environmental impact statement describes the existing environment on and near the proposed SHINE site. For

example, the NRC staff described the existing land uses on and near the proposed site such as agricultural fields, open spaces and developed areas. Some environmental impacts could occur beyond the borders of the proposed facility, such as air emissions. Therefore, the NRC staff also described the existing environment within five miles of the proposed site. Next slide.

Chapter 4 of the EIS describes the potential impacts from construction, operations and decommissioning. The NRC established three levels of significance for potential impacts: small, moderate and large. A small impact occurs when the effects are not detectible, or are so minor they neither destabilize nor noticeably alter any important attributes of the resource.

For example, SHINE would use construction equipment to build the facility. Noise from these activities may disturb birds and wildlife. However, the effects would be small because birds and wildlife would be able to find ample similar habitats surrounding the proposed site. Once construction activities are finished, 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 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 to all resource areas, except transportation, would be small. For transportation, the NRC staff determined that the impacts would be small to moderate, as I will discuss in more detail on the next slide.

During construction, the impacts could be moderate, because there would an 11 percent increase in traffic on US Highway 51, and minor delays could occur during peak hour traffic at intersections along U.S. Highway 51. These impacts would likely be temporary, and of short duration, and would abate as construction activities wind down.

During operations, impacts would be small to moderate. There would be an increase in traffic due to the additional 150 worker vehicles and monthly

deliveries of materials and outbound shipments of medical isotopes and waste. The NRC staff determined that this would result in a slight degradation of service at the intersection of State Trunk Highway 11 and U.S. Highway 51.

However, the number of additional vehicles on the road would be less than that during construction and during decommissioning. During decommissioning, the impacts would be moderate due to potential noticeable delays. These delays would abate once decommissioning activities are over.

In addition to the National Environmental Policy Act or NEPA, the NRC may address other regulatory requirements within its EIS. 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 occur on the proposed site and, if so, how the proposed action could affect these species.

Under the National Historic Preservation

Act, NRC staff first determines whether historic

properties would be affected or not. If historic

properties would be affected, then the NRC staff

determines whether the affects would be adverse. For

the staff's review of environmental justice, the NRC staff examines whether a proposed action would have disproportionately high and adverse impact on minority or low-income populations.

For the SHINE review, the NRC staff determined that constructing the proposed building would have no effect on threatened and endangered species. This conclusion was made, in part, because the proposed site is primarily an agricultural field, and does not provide suitable habitat for any threatened or endangered species.

The NRC staff also determined that the proposed action would have no adverse effect on historic resources, and no disproportionately high and adverse impact on minority or low-income populations. Next slide.

The NRC staff also considers cumulative impacts. Cumulative impacts occur when the effect of other past, present, or reasonably foreseeable activities have overlapping impacts with the proposed action. For this analysis, we're not just looking at the impacts from the proposed SHINE facility, but also any overlapping impacts from other activities, such as climate change or increased urbanization.

While the level of impacts from the SHINE

facility on ecological resources would be small, the NRC staff determined that the cumulative impacts would be moderate, primarily due to other activities, such as climate change and agricultural runoff.

The NRC staff determined that the cumulative impacts on transportation would range from small to moderate, primarily based on the increased traffic due to the proposed SHINE project. The NRC staff found that for all other resource areas, the cumulative impacts would be small.

Chapter 5 of the environmental impact statement compares the environmental impacts of the proposed action with reasonable alternatives. For this analysis, the NRC staff examined two alternative sites. Both of these sites were included in SHINE's site selection process. One is Chippewa Falls, and the other one is Stevens Point which, as you are likely aware, occur in Wisconsin north of here.

The NRC staff found slightly higher environmental impacts at both of the alternative sites. For example, at Chippewa Falls, the NRC staff determined that the impacts to noise and transportation would range from small to moderate, and at Stevens Point, the impact would range from small to moderate for visual resources, noise and transportation. If you'll remember the

previous slide, the impacts at the SHINE site would be small for all resource areas, except for small to moderate for transportation.

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

There are several other proposed technologies out there, but the staff determined that there was not sufficient environmental data in order to conduct a reasonable and meaningful analysis. Our analysis looked at a hypothetical situation whereby a facility using a linear 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 denied the construction permit. The staff found that the impacts would be small for all resource areas.

However, this alternative does not fill the stated purpose and need of the project.

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.

I would like to emphasize that the environmental review is not yet complete. Your comments today, and all written comments received by the end of the comment period on July 6th, will be considered as we develop the final environmental impact statement. Those 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 we receive in the form of comments during the comment period. The NRC staff will address written comments in the same way we address spoken comments received today.

You can submit written comments either

online, or via mail. To submit written comments online, visit the website regulations.gov, and search for the docket NRC-2013-0053. If you have any written comments today, you're more than welcome to give them to me or any NRC staff member. We also have pens and paper in the atrium if you would like to write down any comments that you have.

I am the primary contact for the environmental review, and my contact information is on the slide. Steve Lynch is the primary contact for the safety review. Paper copies and CDs of the draft EIS are available out front. In addition, the Hedberg Public Library has a paper copy available for review. You can also find electronic copies of the draft EIS on the NRC website. This concludes my presentation, and I'm going to turn it back over to Alison.

MS. RIVERA: Thanks, Michelle. We are now going to move into the public comment period. This is the part of the meeting where you have an opportunity to provide your comments on the draft environmental impact statement to the NRC. Although we will not officially be responding to any comments received today, as Michelle indicated, the comments received, written orally both and today and through regulations.gov, will be addressed in the final EIS if

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they are within the scope of the environmental review.

As I mentioned earlier, we are recording this meeting. So if we can keep sidebar conversations down to avoid background noise, and I also ask that you speak into a microphone, which I will bring around to you. If you have not had a chance to fill out a yellow card, and wish to speak, you can raise your hand and I will bring one around to you.

As a reminder for those making comments, please begin by identifying yourself with your name, and if you would like to mention any organization affiliation, please do that, as well. Please try to be succinct. Try and keep your comments to about three minutes. If you wish to make a comment outside the scope of this meeting, NRC staff will be available for approximately 30 minutes following the meeting to answer any questions. Our first speaker is going to be Bill McCoy.

MR. MCCOY: I know two years ago I spoke on the same; for safety around the airport and everything else. I did talk to pilots going in and out of the airport, and they said this is the wrong place for this building to be put. They would hope the NRC would see to deny the building permit for this.

There's other places in the State of

Wisconsin that this building could be put, Badger Army Depot is for one. It's less than a five minute helicopter flight to Dane County Airport. I just left from up there this morning to do the fast track. So my recommendation is because of the contaminated land already up there, to save us from having contaminated land down here in Janesville.

As a citizen of Janesville, I am saying no for the building permit to be issued to SHINE. I don't care what the city official says; I'm speaking on behalf of a citizen of Janesville. Thank you.

Ms. RIVERA: Thank you, Mr. McCoy. Mr. McCoy is actually the only registered speaker. So if there's anyone else that would like to speak, now is your opportunity. No? Anyone? Okay, seeing none, again we will have an evening session, as well. So if you come up with anything in between, there's another opportunity. So I'm going to now turn it over to Mirela.

MS. GAVRILAS: Well, I want to conclude by thanking everybody for coming. Like Alison said, we have another open house that starts at six o'clock. So please, if you know of people who are interested in the topic, we would like to see them here this evening. We will have another presentation and another opportunity

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1	for comment at 7:00 tonight. Thank you, again, and have
2	a good afternoon.
3	(Whereupon at 2:31 p.m. the
4	meeting was concluded.)
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