

July 30, 2013

POTENTIAL APPLICANT: Northwest Medical Isotopes, LLC

SUBJECT: SUMMARY OF JUNE 19, 2013, MEETING WITH NORTHWEST MEDICAL ISOTOPES, LLC REGARDING MEDICAL ISOTOPE PRODUCTION (TAC NO. ME2289)

On June 19, 2013, a Category 1 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) staff and representatives of Northwest Medical Isotopes, LLC (NWMI) at NRC Headquarters, One White Flint North, 11555 Rockville Pike, Rockville, Maryland. The purpose of this meeting was for NWMI to introduce its proposed medical radioisotope production project. A portion of this meeting was closed to the public to discuss proprietary information related to the specifics of design and operation of NWMI's proposed medical radioisotope production facility. A list of attendees is provided as an enclosure.

NWMI opened the meeting with a discussion of its approach to safety culture. In this discussion NWMI acknowledged that safe operation of its proposed facility was its top priority and it believed that this could be accomplished while meeting the nation's molybdenum-99 (Mo-99) production needs. NWMI, at a high level, expressed its intent to produce Mo-99 through the fission of low-enriched uranium targets and recover the produced Mo-99 through dissolution and purification chemical processes. Currently, proof of concept tests are being performed in cooperation with University of Missouri, Oregon State University, and Oak Ridge National Laboratory. Preliminary designs are expected to be completed in the first quarter of 2014. From this discussion, NWMI moved into a discussion of its licensing strategy for construction of its proposed facility, identifying what it believed to be the major steps in the licensing process.

NWMI intends to apply for a single construction permit and operating license under the provisions of Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50. It is anticipated that NWMI will seek an exemption to submit its construction permit application in two parts under the provisions of 10 CFR 2.101(a)(5). In preparing the construction permit and operating license applications, NWMI will consult the Interim Staff Guidance Augmenting NUREG-1537, Part 1, "Guidelines for Preparing and Reviewing Applications for the Licensing of Non-Power Reactors: Format and Content," for Licensing Radioisotope Production Facilities and Aqueous Homogenous Reactors, dated October 17, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12156A069). Throughout the application review process, NWMI expressed its intent to engage NRC staff early and frequently. Further details on this discussion are included in the presentation slides, which are located in ADAMS Accession No. ML13162A126.

The open portion of the meeting concluded with the NRC staff committing to an efficient and effective review of NWMI's proposed application. NRC staff also encouraged NWMI to begin engaging local stakeholders potentially impacted by its proposed project.

During the portion of the meeting closed to the public to discuss proprietary information, NWMI presented material on the technical aspects of its proposed facility. This presentation focused on system processes, component designs, operations descriptions, Mo-99 production, and a detailed project schedule.

One member of the public participated in this meeting, but provided no comments.

Please direct any inquiries to Steven Lynch at 301-415-1524 or [Steven.Lynch@nrc.gov](mailto:Steven.Lynch@nrc.gov).

***/ RA Xiaosong Yin Acting for /***

Steven Lynch, Project Manager  
Research and Test Reactors Licensing Branch  
Division of Policy and Rulemaking  
Office of Nuclear Reactor Regulation

Project No. PROJ0803

Enclosure:  
List of Attendees

cc w/encl: Nicholas F. Fowler  
Chief Executive Officer  
Northwest Medical Isotopes, LLC  
8815 Northwest 9th Street, Suite 256  
Corvallis, OR 97330

During the portion of the meeting closed to the public to discuss proprietary information, NWMI presented material on the technical aspects of its proposed facility. This presentation focused on system processes, component designs, operations descriptions, Mo-99 production, and a detailed project schedule.

One member of the public participated in this meeting, but provided no comments.

Please direct any inquiries to Steven Lynch at 301-415-1524 or [Steven.Lynch@nrc.gov](mailto:Steven.Lynch@nrc.gov).

*/ RA Xiaosong Yin Acting for /*

Steven Lynch, Project Manager  
 Research and Test Reactors Licensing Branch  
 Division of Policy and Rulemaking  
 Office of Nuclear Reactor Regulation

Project No. PROJ0803

Enclosure:  
 List of Attendees

cc w/encl: Nicholas F. Fowler  
 Chief Executive Officer  
 Northwest Medical Isotopes, LLC  
 8815 Northwest 9th Street, Suite 256  
 Corvallis, OR 97330

**DISTRIBUTION:**

PUBLIC	LTran, NRR	PSilva, NMSS	MYoung, OGC
RTR r/f	PBlechman, NRR	DHowe, FSME	SPrice, OGC
RidsAcrsAcnw_MailCTR Resource	AAdams, NRR	RidsNrrDprPrta Resource	SLynch, NRR
RidsOpaMailCenter Resource	JAdams, NRR	RidsNrrDprPrtb Resource	RChang, NSIR
MAdams, NMSS	RidsNrrDpr, Resource	XYin, NRR	ELarson, NRR
MVoth, NRR	ASapountzis, NSIR	MRodriguez, NSIR	Pisaac, NRR
GWertz, NRR	CFrazier, RIII		

**Pkg: ML13205A071, Notice: ML13156A290, MtgSummary: ML13205A092, Slides Pkg: ML13162A126 NRC-001**

OFFICE	DPR/PRLB/PM	DPR/PRLB/LAit	DPR/PRLB/LA	DPR/PRLB/BC	DPR/PRLB/PM
NAME	SLynch	PBlechman	GLappert	AAdams (LTran for)	SLynch (XYin for)
DATE	07/23/2013	7/25/2013	7/29/2013	7/29/2013	7/30/2013

OFFICIAL RECORD COPY

LIST OF ATTENDEES

JUNE 19, 2013, MEETING WITH NORTHWEST MEDICAL ISOTOPES, LLC

REGARDING MEDICAL ISOTOPE PRODUCTION

<u>Name</u>	<u>Organization</u>
Steve Reese	Northwest Medical Isotopes, LLC
Nicholas Fowler	Northwest Medical Isotopes, LLC
Carolyn Haass	Northwest Medical Isotopes, LLC
Ralph Butler	Northwest Medical Isotopes, LLC
Bill Hennessy	SHINE Medical Technologies, Inc.
Steve Lynch	U.S. Nuclear Regulatory Commission
Linh Tran	U.S. Nuclear Regulatory Commission
Alexander Adams	U.S. Nuclear Regulatory Commission
Mary Adams	U.S. Nuclear Regulatory Commission
Mary Muesle	U.S. Nuclear Regulatory Commission
Lawrence Kokajko	U.S. Nuclear Regulatory Commission
Beth Reed	U.S. Nuclear Regulatory Commission
Richard Chang	U.S. Nuclear Regulatory Commission
Xiaosong Yin	U.S. Nuclear Regulatory Commission
Emily Larson	U.S. Nuclear Regulatory Commission
Marcus Voth	U.S. Nuclear Regulatory Commission
Patrick Isaac	U.S. Nuclear Regulatory Commission
Mitzi Young	U.S. Nuclear Regulatory Commission
Sarah Price	U.S. Nuclear Regulatory Commission
Geoff Wertz	U.S. Nuclear Regulatory Commission
Cassandra Frazier	U.S. Nuclear Regulatory Commission
Mike Rodriguez	U.S. Nuclear Regulatory Commission
Alex Sapountzis	U.S. Nuclear Regulatory Commission

Enclosure