



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

June 15, 2016

APPLICANT: NORTHWEST MEDICAL ISOTOPES, LLC

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON MAY 17, 2016, BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND NORTHWEST MEDICAL ISOTOPES, LLC CONCERNING CLARIFICATIONS ON RESPONSES TO REQUEST FOR ADDITIONAL INFORMATION FOR THE ENVIRONMENTAL REVIEW OF THE NORTHWEST MEDICAL ISOTOPES CONSTRUCTION APPLICATION

The U.S. Nuclear Regulatory Commission (NRC) staff and a representative of Northwest Medical Isotopes, LLC (NWMI) held a telephone conference call on May 17, 2016, to discuss and clarify NWMI responses to NRC's request for additional information (RAI) concerning the NWMI radioisotope production facility construction application environmental review. The clarification questions pertain to RAI responses submitted by NWMI on November 20, 2015, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15328A071) and on February 12, 2016, (ADAMS Accession No. ML16053A204). NWMI provided the NRC with responses via e-mail to the RAI response clarification questions on May 17, 2016 (ADAMS No. ML16141A061).

Enclosure 1 provides a listing of the participants and Enclosure 2 contains a listing of the clarification questions discussed with NWMI.

NWMI had an opportunity to comment on this summary.

*/RA/*

Nancy Martinez, Project Manager  
Environmental Review and Projects Branch  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket No. 50-609

Enclosure:  
As stated

June 15, 2016

APPLICANT: NORTHWEST MEDICAL ISOTOPE, LLC

SUBJECT: SUMMARY OF TELEPHONE CONFERENCE CALL HELD ON MAY 17, 2016, BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND NORTHWEST MEDICAL ISOTOPE, LLC CONCERNING CLARIFICATIONS ON RESPONSES TO REQUEST FOR ADDITIONAL INFORMATION FOR THE ENVIRONMENTAL REVIEW OF THE NORTHWEST MEDICAL ISOTOPE CONSTRUCTION APPLICATION

The U.S. Nuclear Regulatory Commission (NRC) staff and a representative of Northwest Medical Isotopes, LLC (NWMI) held a telephone conference call on May 17, 2016, to discuss and clarify NWMI responses to NRC's request for additional information (RAI) concerning the NWMI radioisotope production facility construction application environmental review. The clarification questions pertain to RAI responses submitted by NWMI on November 20, 2015, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15328A071) and on February 12, 2016, (ADAMS Accession No. ML16053A204). NWMI provided the NRC with responses via e-mail to the RAI response clarification questions on May 17, 2016 (ADAMS No. ML16141A061).

Enclosure 1 provides a listing of the participants and Enclosure 2 contains a listing of the clarification questions discussed with NWMI.

NWMI had an opportunity to comment on this summary.

**/RA/**

Nancy Martinez, Project Manager  
Environmental Review and Projects Branch  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Docket No. 50-609

Enclosure:  
As stated

**ADAMS Accession No.: ML16145A018**

\*concurrence via e-mail

<b>OFFICE</b>	LA:DLR	PM:RERP:DLR	BC:RERP:DLR	PM:RERP:DLR
<b>NAME</b>	IBetts	NMartinez	JDanna	NMartinez
<b>DATE</b>	6/ 9 /16	6/ 13 /16	6/ 14 /16	6/ 15 /16

**OFFICIAL RECORD COPY**

**TELEPHONE CONFERENCE CALL**  
**NORTHWEST MEDICAL ISOTOPES, LLC**

LIST OF PARTICIPANTS  
APRIL 21, 2016

**PARTICIPANTS:**

Gary Dunford  
Edward Helventson  
Nancy Martinez

**AFFILIATIONS:**

AEM Consulting LLC  
U.S. Nuclear Regulatory Commission  
U.S. Nuclear Regulatory Commission

TELEPHONE CONFERENCE CALL CONCERNING  
CLARIFICATION ON RESPONSES TO REQUEST FOR ADDITIONAL INFORMATION  
RELATED TO NORTHWEST MEDICAL ISOTOPES, LLC  
CONSTRUCTION APPLICATION

May 17, 2016

The U.S. Nuclear Regulatory Commission (NRC) staff and representatives of Northwest Medical Isotopes, LLC (NWMI) held a telephone conference call on May 17, 2016, to discuss and clarify responses NWMI provided on requests for additional information (RAIs) concerning the construction application environmental review. The clarification questions below pertain to RAI responses submitted by NWMI on November 20, 2015, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15328A071) and on February 12, 2016 (ADAMS Accession No. ML16053A204). NWMI provided the NRC with responses via e-mail to the RAI response clarification questions on May 17, 2016 (ADAMS No. ML16141A061).

**ALT-2A Response Clarification**

NRC Clarification Request: The RAI response to ALT-2A provided an Alternative Site Evaluation. Page 10 of the evaluation provides a preliminary radioisotope production facility (RPF) layout at the MURR alternative site. Clarify whether the distances from radiological/chemical release points to the nearest site boundary (nearest location where a member of the public could potentially be exposed to the radiological or chemical release) for the University of Missouri Research Reactor (MURR) alternative site would be the same as those for the Discovery Ridge site (approximately 10 m for radiological releases from the facility stack, and approximately 24 meters for non-radiological releases during a chemical accident, as stated in the ER), or whether these distances would be different.

Discussion: NRC stated that they reviewed the response NWMI provided in an e-mail (ADAMS No. ML16141A061) pertaining to this RAI response clarification question. The clarification response identifies that at the MURR alternative site, the distance to the site boundary from the RPF building would be similar or slightly shorter than the Discovery Ridge site. The NRC staff asked how much shorter and would that difference in distance be significant to change the radiological doses and/or chemical effects to a member of the public. NWMI stated that a floor plan for the RPF building at the MURR alternative site was not developed, but that the distances to the site boundary from the radiological and chemical release points would not vary by more than a few meters, and that the effects to a member of the public at the site boundary for both routine or accident and radiological or chemical releases would not change significantly for the MURR alternative site relative to the Discovery Ridge site.

**ALT-2A and ALT2-3A Response Clarification**

NRC Clarification Request: In an April 21, 2016 email (ADAMS No. ML16123A047), in response to an NRC clarification question on the RAI response, NWMI clarified that if the RPF were to be constructed at the MURR site, there would be a below grade corridor between the RPF and MURR. Clarify if during construction of the below grade corridor, would workers be exposed to radioactive material or a direct radiation dose.

ENCLOSURE 2

Discussion: NRC stated that they reviewed the response NWMI provided in an e-mail (ADAMS No. ML16141A061) pertaining to this RAI response clarification question. NRC staff asked what is the basis for NWMI stating that there would be no measureable exposure to radioactive materials or direct radiation dose from construction of a below grade corridor given that the MURR basement is a radiologically-controlled area. NWMI stated that the construction workers would be considered occupational radiation workers because they would be working in the radiologically-controlled area, and that radiological controls and monitoring would be in place to protect construction workers and ensure that construction workers' occupational worker dose would be maintained within 10 CFR Part 20 limits. However, NWMI also stated that they expected that the controls used would further ensure that the construction workers would receive no measureable radiation dose during construction.