Mendiola, Doris

Subject: FW: NW Medical Isotopes
Attachments: Draft Comment Letter with Enclosures.pdf

From: Summerlin, Joe [mailto:summerlin.joe@epa.gov]
Sent: Tuesday, January 03, 2017 9:21 AM
To: Drucker, David <David.Drucker@nrc.gov>
Subject: [External_Sender] NW Medical Isotopes

David,

I am sending this comment letter on NW Medical Isotopes to ensure NRC gets a copy for the record. I never know if the snail mail makes it to the right person.

Thanks!

Joe

11/9/2016
81FR 78865

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RULES AND DIRECTIVES

SUNSI Review Complete
Template = ADM – 013
E-RIDS= ADM-03
Add= D. Drucker (dmd3)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7
11201 Renner Boulevard
Lenexa, Kansas 66219

DEC 22 2016

OFFICE OF THE
REGIONAL ADMINISTRATOR

Ms. Cindy Bladey
Rules, Announcements, and Directives Branch
Division of Administrative Services
Office of Administration
Mail Stop: OWFN-12-H08
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Ms. Bladey:

The U.S. Environmental Protection Agency has reviewed the draft environmental impact statement for the Northwest Medical Isotopes Radioisotope Production facility prepared by the U.S. Nuclear Regulatory Commission. Our comments are provided pursuant to the National Environmental Policy Act, the Council on Environmental Quality's National Environmental Policy Act Implementing Regulations (40 CFR 1500-1508), and Section 309 of the Clean Air Act.

While evaluating the draft environmental impact statement, the EPA considered both the environmental benefits and impacts to human health. The statement does a good job explaining the purpose and need of this facility, and the EPA recognizes the benefits this facility will provide to our nation's healthcare system. Without facilities that produce medical isotopes, hospitals throughout the nation would have to import this important isotope from abroad.

We have rated the draft environmental impact statement as Lack of Objections (LO); please see the enclosed summary of rating definitions. While we do not have objections to the project, we offer recommendations in the enclosed detailed comments to help ensure protection of the environment and human health during project construction and operation.

We appreciate the opportunity to provide comments. If you have any questions or would like to discuss our recommendations, please contact Joe Summerlin, lead reviewer for this project, at 913-551-7029 or summerlin.joe@epa.gov.

Sincerely,

Mark Hague

Printed on Recycled Paper

Enclosures (2)

Detailed Comments on the Draft Environmental Impact Statement for the Construction Permits for the Northwest Medical Isotopes Radioisotope Production Facility

1. Regarding gaseous radioactive waste from routine operations, Section 2.7.1.1 Gaseous Waste: This section identifies and provides estimated annual activity of noble gas effluent expected during normal operation (See Table 2-4), but the text in this section also notes, "Radioactive iodine, particulates, and tritium could also be present in the airborne effluent exhaust." However, the draft environmental impact statement does not provide an estimation of these non-noble gas emissions, nor does it provide an estimated filtration percentage from the ventilation system.

   Recommendations for the Final Environmental Impact Statement:
   Please provide additional detail on the approximate total inventory, prior to and after, the gaseous waste exhaust system, including description of noble gas retention time, system efficiency with regards to iodine and particulates, and the final filtration system on radioiodines, particulates, and tritium.

2. Regarding the Waste Management Building, Section 2.1 Site Location and Layout, Section 2.7.1.2 Liquid and Solid Waste, and Section 19.2.8.1.2 Treatment and Temporary Storage of Waste Onsite of the Construction Permit Application for Radioisotope Production Facility [ML15086A265]: These sections refer to a "Waste Management Building" and certain waste that will be collected prior to shipment off-site, but it is unclear in the draft environmental impact statement what radionuclides and activities will be stored in the detached waste building? Is it anticipated that routine operational exposures from these wastes will occur? Are fire protection safety systems considered? Is there any special filtration considered as part of the ventilation system, and is shielding from direct gamma exposure in this building and wastes considered for occupational and public exposures?

   Recommendation for the Final Environmental Impact Statement:
   Please provide additional information on these items in the final environmental impact statement, as well as, whether an accidental release of these wastes was considered as part of the design basis accident assessment.

3. Regarding accident assessment, Section 4.11.1 Radiological Accidents: This section refers to an accident scenario evaluation within the radioisotope production facility with effluents vented out the elevated ventilation stack. An elevated release would cause additional dispersal of a plume, as noted by the maximum projected dose to a member of the public calculated at nearly a mile downwind. The draft environmental impact statement does not indicate if other accident scenarios were evaluated. For example, a situation where a fire involving lesser amounts of activity but released at ground level may have a comparable dose impact to nearby off-site receptors. What was the basis for the accident assessment to assume all radionuclide effluents would be entrained through the ventilation system and out the elevated release point? Did other accident scenarios postulate varying conditions where a fire would lead to a radionuclide release at ground level as a comparison to the noted design-basis accident? Does the design-basis accident represent the highest plausible public dose accident, and did an accident scenario consider a fire in the detached waste management building (assuming this building as noted in Figure 2–3, Proposed NWMI Facility Site Boundary and Site Layout, stores radioactive waste material)?

Recommendation for the Final Environmental Impact Statement:
The reference, NWMI, 2016a, includes an accession number, ML16053A212, with source term information and updated accident assessment modeling that does not appear to be fully explained in the draft environmental impact statement. Please provide an additional summary of this reference in the final document.

4. Regarding public dose limits, Section 3.8.2.3 Regulations Governing Dose from Human-Made Sources of Radiation: This section references the 10 millirem per year public dose standard for airborne releases under 10 CFR 20.1101(d). Does the U.S. Nuclear Regulatory Commission anticipate additional "As Low As Reasonably Achievable" objectives for gaseous effluent control below 10 millirem? Does Appendix I of 10 CFR 50, which includes numerical guides for these objectives, stipulate any additional considerations to the Northwest Medical Isotopes facility in regards to iodine or other air effluents?

   Recommendations for the Final Environmental Impact Statement:
   If additional objectives or concerns are anticipated, please include them in the final environmental impact statement.

5. Does the U.S. Nuclear Regulatory Commission anticipate the University of Missouri Research Reactor to increase radionuclide emissions due to the Northwest Medical Isotopes target irradiation? And if so, what is the estimated increase in effluent and anticipated changes to both the annual projected dose under normal operating conditions as well as accident conditions?

   Recommendation for the Final Environmental Impact Statement:
   Include any additional emissions from the University of Missouri Research Reactor, as well as, accident conditions. A reference to the University of Missouri Research Reactor's accident plan would be sufficient.

SUMMARY OF EPA RATING DEFINITIONS*

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

ADEQUACY OF THE IMPACT STATEMENT

"Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment.