February 15, 2007

Mr. John J. Miller, CHP
Radiation Safety Officer
International Isotopes Inc.
4137 Commerce Circle
Idaho Falls, Idaho 83401

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION

Dear Mr. Miller:

Our initial examination has identified areas in which more information is required. Of the four changes to your license, the request for the removal of the 50 kg limit on gaseous fluorine compounds does not appear to be supported by the documentation provided with your amendment request.

Your current license was intentionally structured to limit the total amount of fluorine present within the facility at any one time. The original licensing review found that 50 kg was the maximum fluorine expected to be on site at any one time, and that the fluorine would be stored in several small containers. As discussed in the Safety Evaluation Report that accompanied your license, 10 CFR Part 40 has no security requirements. However, another licensee, regulated under 10 CFR Part 40, was issued an order imposing them. The 50 kg limitation you offered provided justification (in-part) for NRC not to require those additional security measures at your facility. Specifically, in the opinion of the U.S. Nuclear Regulatory Commission's staff, this limitation ensured that no malevolent act would cause a release of fluorine gas resulting in an off-site death.

Therefore, in order to review the security aspects of your amendment request, the following Requests for Additional Information (RAI) are provided:

SA-1 You propose to remove the 50 kg limitation and to instead limit the total amount of fluorine compounds on site in accordance with the International Fire Codes (IFC). Please provide a reference to the specific codes to which you propose to adhere, identify the maximum amount of fluorine compounds present at any one time, their form, and methods of storage at your facility;

SA-2 You cite, in the cover letter to the amendment application, that limiting the total amount of source material ($UF_4$), in any one building, justifies the removal of the 50 kg limit for fluorine gas. Explain the relationship between the total amount of source material and the potential consequences of a release of fluorine gas;

SA-2 Provide a comparison of how adherence to the IFC identified in [ISA-1] would effect the consequences of the worst case credible release.

In order to verify compliance with the fire codes associated with your facility:

FP-1 Provide a description of the level of fire protection for both of the buildings described in the amendment, specifically include:

a. A description of the sprinkler system;

b. The location of the nearest fire hydrant;

c. The location of the fire detection system;

d. The location of the alarm system; and

e. If any detection/alarm system is monitored off-site.

FP-2 As you propose changes to your ventilation system, please provide a description of any fire dampers in the ventilation system, and describe, in detail:

a. The material of which the glove-box is made; and

b. How the hydrogen fluoride chemical filter and the HEPA filter are protected from a fire.

To ensure a timely review, please provide the requested information within 30 days of the date of this letter.

I have resumed the project management responsibilities for International Isotopes Inc., and have been re-assigned to the Enrichment and Conversion Branch, Division of Fuel Cycle Safety and Safeguards under the reorganization of the Office of Nuclear Material Safety and Safeguards.

If you have any questions regarding this matter, I can be reached at (301) 415-6334, or via e-mail, to mgr@nrc.gov.

Sincerely,

/RA/

Michael Raddatz, Project Manager
Enrichment and Conversion Branch
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

Docket No. 40-6940
License No. SUB-1587

In order to verify compliance with the fire codes associated with your facility:

FP-1 Provide a description of the level of fire protection for both of the buildings described in the amendment, specifically include:

a. A description of the sprinkler system;

b. The location of the nearest fire hydrant;

c. The location of the fire detection system;

d. The location of the alarm system; and

e. If any detection/alarm system is monitored off-site.

FP-2 As you propose changes to your ventilation system, please provide a description of any fire dampers in the ventilation system, and describe, in detail:

a. The material of which the glove-box is made; and

b. How the hydrogen fluoride chemical filter and the HEPA filter are protected from a fire.

To ensure a timely review, please provide the requested information within 30 days of the date of this letter.

I have resumed the project management responsibilities for International Isotopes Inc., and have been re-assigned to the Enrichment and Conversion Branch, Division of Fuel Cycle Safety and Safeguards under the reorganization of the Office of Nuclear Material Safety and Safeguards.

If you have any questions regarding this matter, I can be reached at (301) 415-6334, or via e-mail, to mgr@nrc.gov.

Sincerely,

/RA/

Michael Raddatz, Project Manager
Enrichment and Conversion Branch
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

Docket No. 40-6940
License No. SUB-1587

**ML070400323**

| **OFC** | FFLD | FFLD | FFLD |
|---|---|---|---|
| **NAME** | MRaddatz | LWilliamson | BSmith |
| **DATE** | 02/12/07 | 02/12/07 | 02/15/07 |

**OFFICIAL RECORD COPY**