

May 19, 2000

Mr. Steve Laflin  
[ ]  
International Isotopes Idaho, Inc.  
2325 West Broadway, Suite D  
Idaho Falls, ID 83402

EA 2000-04

Subject: Preliminary Notice of Violation (NTS-ID--BBWI-TRA-1999-0001)

Dear Mr. Laflin:

This letter refers to the Department of Energy's (DOE) investigation of the facts and circumstances concerning work planning and work control deficiencies with regard to the replacement of hot cell exhaust ventilation filters at Test Reactor Area Building 632, Idaho National Engineering and Environmental Laboratory (INEEL). The result of these deficiencies was that on July 21, 1999, two maintenance workers were contaminated with [ ] radioisotopes. As a private enterprise for-profit entity acting as a subcontractor to INEEL's Management and Operations (M&O) contractor, International Isotopes Idaho, Inc. (I4), is responsible for adhering to all applicable radiological and quality assurance procedures implemented by the M&O.

DOE's Office of Enforcement and Investigation initiated an investigation of this event in December 1999. Based on a review of relevant facility documentation, and discussions with involved personnel at TRA and DOE's Idaho Operations Office during February 29 through March 2, 2000, DOE has concluded that violations of 10 CFR 830, "Nuclear Safety Management," and 10 CFR 835, "Occupational Radiation Protection," occurred; these violations are described in the enclosed Preliminary Notice of Violation (PNOV). The PNOV pertains to deficient radiological work processes, including work document preparation and review, the staging of needed materials, and maintaining radiation exposures ALARA.

The consequences of the radioactive material contaminations of the two maintenance workers were, fortunately, minimal. Nonetheless, despite numerous opportunities, I4 failed to ensure, as required by INEEL's work conduct and control procedures, that development of pertinent work activity documents proceeded in a coordinated manner, and failed to validate these documents prior to their being put into use. Therefore, in accordance with 10 CFR 820, "Procedural Rules for DOE Nuclear Activities," Appendix A, the violations associated with the July 21, 1999, filter replacement event have been classified as Severity Level III violations.

To emphasize the need for assuring the proper control of work-related activities, I am issuing the enclosed PNOV. You are required to respond to this letter and you should follow the instructions specified in the enclosed PNOV when preparing your response. Your response should document any additional specific actions taken to date and planned to prevent recurrence. You should enter into the Noncompliance Tracking System (1) any additional actions you plan to prevent recurrence and (2) the target completion dates of such actions. After reviewing your response to the PNOV, including any proposed corrective actions, DOE will determine whether further enforcement action is necessary to ensure compliance with DOE nuclear safety requirements.

Sincerely,



David Michaels, PhD, MPH  
Assistant Secretary  
Environment, Safety and Health

CERTIFIED MAIL  
RECEIPT REQUESTED

Enclosures:  
Preliminary Notice of Violation  
Investigation Summary Report

cc: B. Costner, S-1  
M. Zacchero, EH-1  
S. Carey, EH-1  
K. Christopher, EH-10  
S. Zobel, EH-10  
W. Stadler, EH-2  
F. Russo, EH-23  
N. Goldenberg, EH-3  
F. Fitzgerald, EH-5  
W. Magwood, NE-1  
L. Miller, NE-40  
B. Cook, DOE-ID  
W. Bergholz, DOE-ID  
W. Sato, DOE-ID  
R. Furstenu, DOE-ID  
S. Somers, DOE-ID PAAA Coordinator  
K. Whitham, DOE-ID  
S. Forcey, BBWI PAAA Coordinator  
R. Azzaro, DNFSB  
D. Thompson, DNFSB  
Docket Clerk, EH-10

**PRELIMINARY NOTICE OF VIOLATION**  
**NTS-ID--BBWI-TRA-1999-0001**

International Isotopes Idaho, Inc.

EA 2000-04

As a result of a Department of Energy (DOE) evaluation of activities associated with the July 21, 1999, replacement of hot cell exhaust ventilation system filters at the Test Reactor Area Hot Cell Facility (Building TRA-632), violations of DOE nuclear safety requirements were identified. In accordance with 10 CFR 820, Appendix A, "General Statement of Enforcement Policy," DOE proposes to issue this Preliminary Notice of Violation, without civil penalty, pursuant to Section 234A of the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2282a. The particular violations are set forth below.

- I. 10 CFR 830.120(c)(2)(i) states that work shall be performed to established technical standards and administrative controls using approved instructions, procedures, or other appropriate means.

Contrary to the above, work was not performed to established technical standards and administrative controls using approved instructions, procedures, or other appropriate means in that—

- A. Management Control Procedure MCP-2798, "Maintenance Work Control," Revision 9, dated November 11, 1998, and Standard STD-101, "Integrated Work Control Processes," Revision 0, dated May 24, 1999, prescribed overall responsibility for reviewing and validating documents pertaining to a work activity to a facility manager. However, prior to July 21, 1999, International Isotopes Idaho, Inc. (I4), did not adequately review and validate Maintenance Work Order (MWO) BI067, ALARA Review HC-99-008, and Radiation Work Permit 99000626 05 to ensure instructions and procedures pertaining to the use of a decontamination cover for decontamination of the exhaust filter banks that serviced Hot Cell 1 in Building TRA-632 were proper and complete.
- B. Standard STD-101, "Integrated Work Control Processes," Revision 0, dated May 24, 1999, delegated to I4, through Chapter 1, Items 4.4 and 4.6, responsibility for staging materials and supplies necessary for disposal of radioactive waste. However, on July 21, 1999, I4 staged shielded waste containers and plastic bags for certain filters that were too small, resulting in MWO BI067 being commenced on two separate occasions without the proper

staging of materials and supplies for radioactive waste disposal.

Collectively, these violations constitute a Severity Level III problem.

- II. 10 CFR 835.1001(a) states that measures shall be taken to maintain radiation exposures in controlled areas ALARA through facility and equipment design and administrative control. The primary methods used shall be physical design (e.g., confinement...).

Contrary to the above, measures were not taken to maintain radiation exposures ALARA through facility and equipment design and administrative control where the primary method to be used shall be physical design (e.g., confinement) in that, on July 20, 1999, I4 did not ensure that the use of a decontamination cover for the Hot Cell 1 exhaust filter housing decontamination was discussed during the pre-job briefing and, on July 21, 1999, I4 did not ensure that decontamination covers, or the materials necessary to construct them, were available for use. Two maintenance workers were subsequently contaminated with radioactive material during commencement of MWO BI067.

This violation constitutes a Severity Level III problem.

Pursuant to the provisions of 10 CFR 820, International Isotopes Idaho, Inc., is hereby required within 30 days of the date of this Preliminary Notice of Violation, to submit a written statement or explanation to the Director, Office of Enforcement and Investigation, Attention: Office of the Docketing Clerk, P.O. Box 2225, Germantown, MD 20875-2225. Copies should also be sent to the Manager, DOE-Idaho Operations Office, and to the Cognizant DOE Secretarial Office for the facility that is the subject of this Notice. This reply should be clearly marked as a "Reply to a Preliminary Notice of Violation" and should include the following for each violation: (1) admission or denial of the alleged violations; (2) any facts set forth which are not correct; and (3) the reasons for the violations if admitted, or if denied, the basis for the denial. Corrective actions that have been or will be taken to avoid further violations will be delineated with target and completion dates in DOE's Noncompliance Tracking System. In the event the violations set forth in this Preliminary Notice of Violation are admitted, this Notice will constitute a Final Notice of Violation in compliance with the requirements of 10 CFR 820.25.



David Michaels, PhD, MPH  
Assistant Secretary  
Environment, Safety and Health

Dated at Washington, DC  
this 19th day of May 2000