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February 27, 2006

United States Nuclear Regulatory Commission
 ATTN: John Kinnerman
 Washington, DC 20555

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RECEIVED
 REGION 1

Request for an Amendment to, NRC License No. 19-08330-03

Sir:

On 22 November 2005, during scheduled routine checks of the access control system, operators observed that the exposure room door can be opened when the exposure room RAM detector is disconnected from the monitor that is located in the control room. This contradicts sentence 6 of section 9.2 Access Control (f)(2) of the AFRRI Cobalt Facility License which states, "Also, this door cannot be opened if this RAM is not operational, e.g., due to a broken wire or disconnected detector, and the open button on the exposure room power control unit is depressed." This statement is not correct as written and should be deleted.

As soon as the discrepancy was identified the Cobalt Facility Director, the Radiation Safety Officer, and the Facility Radiation Manager were notified. The console designer, Mr. Mark Gee, was contacted by the Facility Radiation Manager. Mr. Gee stated that the console and access control system was never designed to have a feature that would detect a disconnected detector or broken wire. It is assumed that a miscommunication existed between the author of the 1993 license and the console designer concerning the access control system allowing for the statement to be added to the license document. After discussions with the console design team, the Facility Radiation Manager, the Radiation Safety Officer, and the Acting AFRRI Director, the Cobalt facility was allowed to continue operations. Ms. Kathy Modes of Materials Security And Industrial Branch, Division of Nuclear Safety, NRC was also notified.

Since the facility interlock system is functioning as designed, and sufficient redundancy is designed into the interlock system to protect facility personnel, the discovery of this error in the license document does not represent a change in the original design or intent, does not represent a safety deficiency, and does not represent a deviation in the way the interlock system was designed to function, therefore, operations were not suspended. As discussed with Kathy Modes, an amendment to the license deleting this sentence is requested.

With this amendment, the license will still meet the access control requirements described in 10 CFR 36.23(c). The facility is equipped with an independent control room RAM, described in Attachment 1, which satisfies this requirement.

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NMSS/RONI MATERIALS-002

The point of contact concerning this malfunction is the undersigned.

I declare under penalty of perjury that the foregoing is true and correct. Executed on February 27, 2006.

FOR THE DIRECTOR:



Stephen Miller
AFRRI Facility Radiation Program Manager (FRM)
Head, Radiation Sciences Department

Attachment 1 – Summary of Cobalt Facility Safety Features (described in detail in license document section 9.2 Access Control and section 10.2 Inspection and Maintenance)

The following safety features were incorporated into the original console design and operating procedures:

1. The exposure room RAM is tested daily to ensure functionality. This device has been extraordinarily reliable. Historical data indicates that daily testing is more than sufficient to ensure operability.
2. The access control system has the following redundant controls to guard against an unintended exposure by the opening of the exposure room door while the sources are in the unshielded position.
 - a. There are two independent switch systems, a single swing-arm type microswitch and a set of microswitches connected in a series that will prevent the movement of the sources out of their shielded position and cause the sources to return promptly to their shielded position should the exposure room door be opened during irradiations.
 - b. The key for the key switch to the power control unit for the exposure room door is the same key for the key switch to the console used to move the sources. Only one key exists at any given time. The power control unit for the exposure room door is deactivated once the console is turned on; thus, the power control unit operates the exposure room door only when the power to the console is off.
 - c. The Facility has two radiation area monitors (RAMs).
 - i. The control room RAM, an independent backup access control system, consists of a radiation detector located outside the exposure room entrance door and an alarm/readout module on the wall near the console. Should an individual manage to open the exposure room door while the sources are raised and the two door interlocks fail to function, the radiation levels present at the door entrance would cause the control room RAM to activate above a preset alarm point. Activation of this RAM sets off audible and visual alarms in the control room, automatically lowers the sources to their shielded position at the bottom of the Facility pool, and alerts AFRRI security personnel. This RAM is operational at all times and also serves as a monitor for the control room whether the console power is on or off or the exposure room is opened or closed.
 - ii. The exposure room RAM consists of a radiation detector located in the exposure room with an alarm/readout module

located in the control room. The RAM is set at a preset alarm point to detect the presence of radiation in the exposure room before personnel entry. When radiation levels above the preset alarm point are detected by this RAM, visual and audible alarms are activated in the control room. The RAM is integrated with the entrance door control power unit to prevent room access when radiation levels are detected above the preset alarm point. Thus, in addition to the activation of visual and audible alarms, the door will not open when the open button on the exposure room door power control unit is depressed while radiation levels above the preset alarm point exist in the exposure room. Additionally, the exposure room door cannot be opened after an irradiation when the door open button is depressed unless the exposure room RAM alarm/readout module is turned on.

This is to acknowledge the receipt of your letter/application dated

2/27/2006, and to inform you that the initial processing which includes an administrative review has been performed.

AMEND. 19-08330-03 There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

Please provide to this office within 30 days of your receipt of this card

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned **Mail Control Number** 138564.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.