

## **APPLICATION FOR F-431 TRANSPORTATION PACKAGE**

### **Response to Request for Additional Information**

#### **1.0 General Information**

- 1.1** See Figure 1 and Figure 2 of Section 1.2.2 of the Safety Analysis Report (SAR) IN/TR 6087 F431 rev B showing the unmodified and modified versions, respectively. Figure 2 is applicable for both the retrofit and the in house designs. Also, refer to the last paragraph of Section 1.1 of the SAR for clarification.
- 1.2** Refer to Drawing F643101-001, sheet 2 of 2, rev. D for better details. Detail C has been modified to include increased detail of this area, including an exploded view.
- 1.3** A) Refer to Drawing F643101-001, sheet 2 of 2, rev D for the details on the materials used on the security features (steel and lead)  
B) See modified paragraph in Section 1.1 of SAR IN/TR 6087 F431 rev B and the modification of detail C in Drawing F643101-001, sheet 2 of 2, rev D.
- 1.4** Refer to Drawing F643101-001, sheet 1 of 2 rev H and F643101-001, sheet 2 of 2 rev D.
- 1.5** The radiation shielding of the unit has already been assessed as part of the approval process for the current Certificate of Compliance, No. 9310. This amendment does not alter the radiation shielding aspects of the transport package, which have already been approved. The amendment is related to the addition of security features, which do not impact the current shielding design. The materials of the additional security features have been defined in detail C, Drawing F643101-001, sheet 2 of 2, rev D.

#### **2-0 Structural**

The manufacturing methods for source retention have not changed from the original configuration. The first pictogram in Detail C, Drawing F643101-001, Sheet 2/2 shows the original and current method that is used to secure the sealed source. In this method, the source plug is permanently welded in place, sealing the source holder inside the shielding chamber. This unit configuration was tested, validated and approved. The second pictogram shows a retaining ring present that was meant to be used as an alternative configuration that would allow for source replacement. However, the retaining ring was never implemented or used on a Gammacell unit.

The third and fourth pictograms of detail C show the configuration with additional security features. The source plug welding process is identical to the original process and has not changed; however, there is an incorporation of additional security features. The security features include a welded metal plate on top of the unit that delays the unauthorized access to the source from outside of the already welded source plug.