

SOURCE LOADING AND REPLENISHMENT

Introduction

Source loading/replenishment operation should be carried out by manufacturer/ authorised supplier of the GIC unit, who is equipped with necessary infrastructure (such as hot cell, remote handling tools, suitable radiation monitors, material handling systems etc.) and trained and experienced manpower for these purposes.

Source Loading in a New GIC Unit

Source loading may be carried out in a newly fabricated GIC unit which is manufactured as per the relevant Safety Standard and the guidelines.

The following measures should be adopted:

- (a) The source of desired activity not exceeding the designed/approved strength should be loaded in the source cage.
- (b) The radiation levels and contamination levels, if any, of GIC unit loaded with source should be measured and records maintained.
- (c) Further tests and trials such as functionality, radiometry, dosimetry, proper markings and labeling should be carried out prior to dispatch of the GIC unit.

Source Replenishment

In case of source replenishment of GIC unit the manufacturer should carry out various checks on components and the systems such as source container assembly of GIC from radiation safety point of view, critical weld joints (circumferential and longitudinal) of the outer shell of the container and for subsequent repair if required.

Based on checks, furnish report to AERB for obtaining the source replenishment permission. The source loading to be carried out as per the guidance given above

Source Loading at the Site

Source loading can be carried out at the site subject to the following conditions:

- (a) It should be carried out by supplier or authorised representatives with prior approval of the Competent Authority
- (b) Transport of sources in the approved transport container
- (c) Availability of necessary infrastructure/gadgets for source transfer operation
- (d) Availability of trained and experienced manpower
- (e) Supervision by Radiological Safety Officer of the user institution/supplier.

Source loading/replenishment shall be obtained through the on-line portal, www.aerb.gov.in/e-LORA . The following minimum documents have to be submitted along with the application form.

A copy of the undertaking furnished by the supplier of the source to take back the disused / decayed source.