

## **RADIATION MONITORING**

### **Work Place Monitoring**

- (i) Radiation surveys shall be carried out by Radiological Safety Officer or an authorised person who has the knowledge and training necessary to select and use suitable survey instruments.
- (ii) Periodic radiation protection survey shall be carried out at locations in and around the facility.
- (iii) Continuous radiation surveillance shall be provided during loading and unloading of radioactive sources in the facility.
- (iv) Work place monitoring shall be provided during the handling of an unusual or abnormal event.
- (v) Extensive radiation monitoring shall be provided during the handling of any emergency situation.
- (vi) Proper functioning of installed radiation monitors at personnel access door, product exit door and at resin bed of DM plant shall be ensured all the time.
- (vii) A radiation survey shall be performed to confirm continued compliance with standards when changes to the radiation processing facility have been made such as:
  - (a) An increase in the amount of activity above the previous maximum in case of a GRAPF
  - (b) Sealed source rearrangement in case of a GRAPF
  - (c) An increase in the performance specifications, such as energy or beam current, of a machine source above the previous maxima in case of an IARPF
  - (d) A decrease in shielding
  - (e) Any other change which may have increased the leakage radiation levels.
- (viii) If the survey indicates the need for corrective action, another survey shall be performed after appropriate modifications have been made.
- (ix) Records for all type of radiation monitoring shall be maintained and made available for regulatory inspection.

### **Individual Monitoring**

- i.
  - a) Adequate number of passive personnel dosimeters shall be made available and used by all workers employed with the facility.
  - b) The control badge shall be placed/ stored in a radiation-free area in the facility.
- ii. Workers shall be informed of the dose received by them.

- iii. Active personnel monitors such as pocket dosimeters or alarm-based dosimeters shall be used by all personnel involved in the following situations:
  - a. Loading and unloading of radioactive sources in the GRAPF
  - b. While working near beam components in IARPF
  - c. Handling of any unusual or abnormal event in the facility
  - d. Handling of emergencies.
- iv. Records for all type of personnel monitoring shall be maintained and made available for regulatory inspection.

-----