

## **Field Radiography**

The following requirements in respect of field radiography shall be complied with:

- 1) Field radiography shall be carried out in locations where occupancy and traffic are as low as practicable. Field radiography includes radiography in shop floors, construction/erection sites, public areas and radiography operations outside an enclosed installation.
- 2) The licensee shall obtain specific approval from the Competent Authority prior to movement of exposure device for undertaking open field radiography at any site.
- 3) Before commencing open field radiography operations at a site, a well-defined and clearly visible boundary shall be established using warning signs and devices such as barriers all around the site as appropriate. The actual dose rates at the boundary shall be measured during exposure using a calibrated survey meter and the location of the boundary shall be rectified as necessary before subsequent exposures.
- 4) During radiography, adequate distance shall be cordoned off around the radiation source and placards shall be displayed at the boundary to warn against unauthorised presence inside or near the radiography site. The cordon-off distance shall be determined on the basis of workload, occupancy factor outside the boundary and limitation of annual dose specified.
- 5) The radiation symbol and placards with the legend 'RADIATION --KEEP AWAY' and its equivalent in English / Hindi as well as in local language shall be posted along the cordon. A warning light shall be displayed at night.
- 6) Field radiography shall not be carried out without the use of an appropriate collimator except in case where it is not physically possible.
- 7) Before undertaking any field radiography work, appropriate safe working procedure shall be established by the licensee.
- 8) The boundaries of adjacent radiography sites shall not overlap.
- 9) During radiography the drive cable and the guide tube of the gamma exposure device and the electric cable of the X-ray machine / portable accelerator shall be extended to the fullest extent possible to take maximum advantage of distance for protection from the source of radiation. Once the radiography exposure commences, the radiographer shall move quickly to, and remain at, a location where the dose rate is as low as practicable. The dose rate at the position taken up by the radiographer during radiography shall be checked regularly by means of a survey meter.
- 10) The immediate environment of the source position shall be clearly visible from the source control position and from the position taken up by the operator during radiography. The cordoned area of an open site shall be under observation at all times during exposure to ensure that no person enters the area during radiography.
- 11) One or more warning lights and an audible alarm located immediately adjacent to the exposure position shall be used to indicate when an exposure is in progress.

- 12) Warning display reading, 'RADIATION - KEEP AWAY' inscribed in English / Hindi and the local language and the radioactivity symbol on the exterior walls
- 13) Effective physical security shall be provided for the source(s) at all times as per the guidance provided in AERB Safety Guide on 'Security Of Radioactive Sources In Radiation Facilities' (AERB/RF-RS/SG-1) and 'Security of Radioactive Material during Transport' (AERB/NRF-TS/SG-10).