

RADIOLOGICAL SAFETY OFFICER (RSO) AND RESPONSIBILITIES

1. Nomination and Approval of Radiological Safety Officer

Institutes which are using/ are going to use the Nucleonic Gauge units should get an employee trained on "Radiation Safety aspects of the Nucleonic Gauges" or any other equivalent course. The training and certification is done by RP &AD, BARC. The coordination for this course is done by Indian Association of Radiation Protection (IARP). For more details you may visit IARP Website (<http://www.iarp.org.in/15/>).

The RSO certification is valid for three years and it becomes invalid if the RSO leaves the institute.

RESPONSIBILITIES OF RSO

- a) implement the safe procedure for operation of the device specified below, on first time receipt
 - ensure that source containment has all of its components intact and in an acceptable condition..
 - radiation dose rate profile in the vicinity of the source containment conforms to the limits specified by AERB
 - shutter or source control mechanism, source assembly and retraction mechanism and any other safety features operate correctly and safely
 - radiation warning signs and labels are intact, appropriately marked and legible
 - device performs satisfactorily when used in accordance with manufacturers instructions.
 - location of the gauge has not been altered without the approval of the Competent Authority.

- b) Ensure Implementation of Safe Work Procedure

SAFE WORK PROCEDURE

- stay close to the gauge except when necessary to observe the operation of these gauges and the number of persons operating the gauge is kept to a minimum,
- a radioactivity symbol and a warning sign reading "RADIATION KEEP AWAY" in English, Hindi, the local language and any other language deemed necessary is conspicuously displayed and properly located and maintained in a clean and legible in the vicinity of the NG.
- the source(s) are kept locked in the shielded position whenever the NG are not in use,
- shutter 'ON/OFF' operation is checked periodically, particularly for continuous process monitoring gauges, which may require the shutter to be kept open for long duration, that is, days/months (since during operation, dust may be accumulated and cause the shutter to get jammed),
- a swipe test is carried out on those gauges containing radioactive source(s) at regular intervals not exceeding 12 months
- the results of all radiation protection surveys and examinations of the equipment are recorded and retained,
- all tools necessary for the safe operation of the NG and the handling of emergency are in good working condition
- When not in use, the NG should be securely stored in a designated storage location.

c) INSTRUCT CO-EMPLOYEES TO

- i) acquaint themselves with radiation symbols and warning signs
 - ii) report to the RSO any difficulties with working procedures or defects in equipment which may have caused or are likely to cause a radiation hazard, including the actual or potential loss of a radioactive source and any accident or potentially hazardous situation that may come to their notice;
 - iii) use any personal protective equipment provided to them and devices or equipment to assess their personal radiation dose, where applicable;
 - iv) not remove or in any way interfere with the radiation source(s) .
 - v) require that a female worker, on becoming aware that she is pregnant, notifies the employer, licensee and Radiological Safety Officer in order that her working conditions may be modified, if necessary
- d) during installation of the NG, conduct a radiation protection survey of the device, record the readings in a log book and learn from the installation staff about the details of operation of the IRGD, particularly the safety features;
- e) source(s) are brought to the exposure 'ON' only when required
- f) issue and collect any personnel monitors which may be used
- g) furnish the safety status report in the prescribed format
