Radiation Protection Adviser (RPA) Services for XRF Users

Credit: Fischer Instrumentation (GB) Ltd

X-ray fluorescence (XRF) spectrometry equipment has become a very popular technique for the analysis of a wide range of materials within industries which may be unfamiliar with the requirements and hazards associated with working with ionising radiation.

XRF equipment can produce very high levels of radiation at the aperture (Sv/h) and it is vital that the correct precautions are implemented to protect individuals working with or near the system.

Why are we needed?

To achieve safe working conditions, employers using XRF equipment must comply with the requirements of the Ionising Radiations Regulations 2017 (IRR17) within the U.K. and its supporting Approved Code of Practice and Guidance. The employer must appoint an accredited Radiation Protection Adviser (RPA) who can provide compliance support with respect to requirements such as:

- HSE notification.
- Performing a Radiation Risk Assessment (RRA) that considers normal operations, possible radiation accidents and identifies the steps needed to restrict radiation exposures.
- Provides operator training in the safe use of the equipment and the radiation risks and safety requirements.
- Determining the need for the work area to be designated as a Controlled Area, which would then require Local Rules to be written and a Radiation Protection Supervisor to be appointed.
- Establishing a programme for checking and maintaining safety systems.
- Establishing a programme for monitoring radiation levels (including any enclosures) and monitoring radiation dose.
- Identifying the need for contingency plans for dealing with radiation accidents (e.g. in the event of physical damage to the system, system malfunction, fire).

What we do

As your appointed RPA, Amentum will give balanced advice on all the technical and administrative arrangements for radiological protection. In addition, we have our Approved Dosimetry Service (ADS) and so can provide independent continuous in-situ area dose monitoring. Our RPA service agreements for users of XRF devices typically include:

- Production of Local Rules and risk assessments.
- Provision of Radiation Awareness and Radiation Protection Supervisor training.
- Site visit to audit radiation safety and safe use of the instrument.
- Audit reports with, if required, advice on improvements.
- Monitoring protocols.
- Designation of work areas.
- Personal dosimetry results.
- Retention for RPA advice throughout the year on a ‘call-off’ basis.

Experience

We have many years of experience in providing RPA services to all sectors of industry, research and education, to assist in achieving full compliance with the Ionising Radiations Regulations. Our RPAs have direct experience of providing advice for a wide range of XRF devices, covering both portable and installed systems.

Contact

To discuss your RPA requirements in confidence, please contact:

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The U.K. RPA team is only accredited to provide advice under U.K. Regulations