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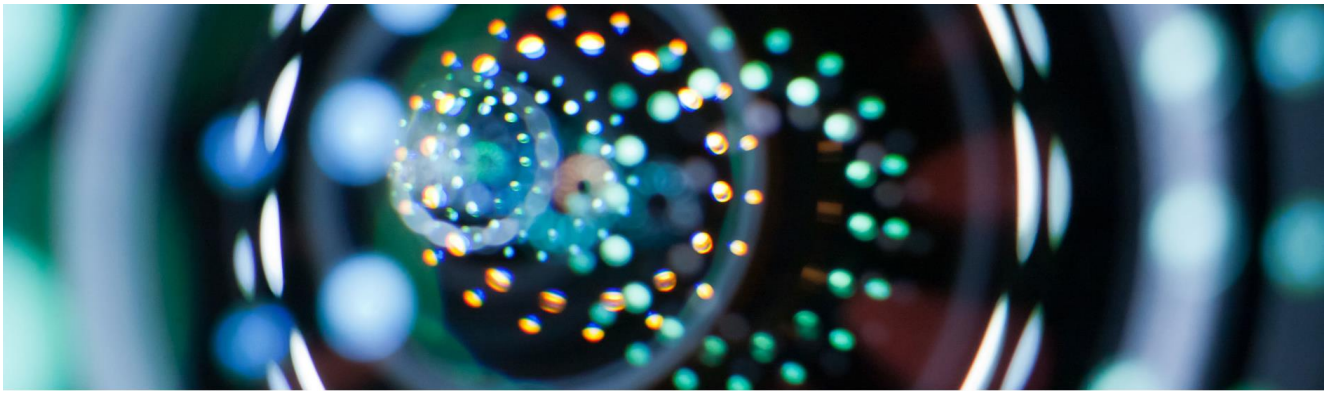

International Radiation Protection Training

Radiation Protection Officer (RPO)

(Radioactive materials and x-rays)

2019

Bahrain, Kuwait, Oman, Qatar, United Arab Emirates and further afield

Scope

For some time Ionactive has been involved in providing RPO (Radiation Protection Officer) training courses outside the UK, principally using a third-party training company to host the events in Dubai (UAE). We have run 3-4 courses per year with delegates coming from all over the Gulf and beyond and representing every area of ionising radiation use.

Client and market expectations change from time to time and we are aligning ourselves with these changes. From September 2019 onwards Ionactive now offers direct RPO training to companies based in Bahrain, Kuwait, Oman, Qatar, UAE and further afield. We offer RPO training services direct to companies who have a number of delegates who can be trained 'in house'. The courses are based on IAEA radiation safety standards but will be personalised to country specific legislation.

The courses are delivered by Mark Ramsay, a UK based **Qualified Expert** (**Radiation Protection Adviser**) and Chartered Radiation Protection Professional. The courses will be based at your company premises using your training facilities.

We will deliver a 3-5 day courses designed for your specific needs covering your use of ionising radiation. X-ray and radioactive materials for use in medical, industrial, quality assurance and security etc can be included.

Course highlights

- Nature of Ionising radiation
- Ionising radiation sources
- Your radiation sources
- Practical Radiation Protection
- Accidents / Incidents
- Radiation detection
- Tabletop exercises
- 'Walk & Talk' around your workplace
- Radiation safety legislation
- RPO, local rules & risk
- Course summary & discussion
- Test and certificate

Company specific RPO training

Onsite training allows for the possibility of a 'walk and talk' training session around your work area (this is an advantage compared to attending an offsite training venue). By attending your company site, we can also include a practical session if required (for example radiation monitoring around your ionising radiation sources).

Over the last 10 years Ionactive has been involved in delivering RPO training to many delegates across the Gulf and beyond. Examples include delegates from **Dubai Customs, Dubai Airport, Emirates Air, Etihad Air, ADNOC, ENOC, SEHA Group, EMAAR Group, Jumeirah Group of Hotels, Korea Hydro & Nuclear Power, Bahrain Customs, Bahrain Tatweer Petroleum, Mattex Group (UAE), Smiths Detection, Rapiscan Systems and many more**.

Our RPO courses will be designed around your use of ionising radiation so maximising the training advantage for all delegates.

Areas covered by Ionactive RPO training

This course is suitable for companies, institutions, health authorities etc who will be appointing one or more Radiation Protection Officers into the following work areas involving ionising radiation.

- Unsealed radionuclides (e.g. laboratory-based research or teaching work, nuclear medicine, NORM, oil and gas etc)
- Sealed radioactive sources (e.g. radiometric gauging, calibration, sterilisation, quality control, medical)
- X-ray sources (e.g. XRF / XRD, radiography, security inspection, quality assurance, medical etc)

Why use Ionactive? We are Qualified Experts (Radiation Protection Adviser) to many of the companies that supply the radiation sources you may be using in your workplace. Examples include appointed Adviser to **GE Healthcare, Philips Healthcare, Elekta Oncology, Rapiscan Systems, Smiths Detection and many others**. Therefore, during the RPO training we can offer specific advice on radiation safety as well as assistance in applying for licenses from your regulator (e.g FANR in UAE, Ministry of Environment in Qater, Environment Authority in Bahrain, etc), and writing your radiation safety programmes and local rules.

Whilst all our courses are compatible with the *General Safety Requirements Part 3 (IAEA)*, **we will design the course specifically for your company**. Your delegates will not be sitting through a standard radiation safety course, they will be attending a course designed to consider the sources of ionising radiation that they, or their colleagues, are working with every day.

General aims of the course

The aims of the course are to:

- Understand the nature of ionising radiations, their effects and quantification of harm.
- Understand radiation protection principles and the importance of the ALARA principle.
- Acknowledge and appreciate the external and internal radiation hazard.

Our training is full compliant with '*Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards*' - **General Safety Requirements Part 3 (IAEA)**

Typical RPO delegates

Our revised training approach means we are unlikely to deliver training to mixed groups of delegates. Instead we expect to be approached by a company and deliver training on site to a specific delegate group. Depending on the company type, delegates will likely be from one of the following:

- Theatre nurses
- Nuclear medicine staff
- Diagnostic x-ray staff
- Radiotherapy staff
- Nuclear gauges technicians
- Research & teaching
- Quality assurance
- Oil and gas industry
- Local government / regulator
- X-ray and EDT security
- Industrial radiography
- Aviation security

- Become familiar with practical radiation protection techniques (for all source types you use on site).
- Use quantities for measuring dose, dose rate, exposure, radioactivity, penetration etc.
- Be aware of the range of active and passive radiation / contamination monitoring techniques available for assessing personal and environmental exposure.
- Know how to choose the correct monitoring technique for your area of work.
- Understand and use the principles of risk assessment to assist in assessing exposure and its significance and relevance to specified dose limits.
- Be aware of the IAEA and local legislation which underpins radiation protection and how the RPO fits into the regulatory framework (and where they do not).
- Be familiar with radiation protection management procedures (e.g. designation of areas, written systems of work, radiation workers, radiation safety programmes, applying for licenses).
- Know when local rules are required, what they should contain and who should write them.
- Understand the role of the RPO.
- Appreciate the importance of good record keeping.
- Understand the role of the Qualified Expert (Radiation Protection Adviser)
- Understand the responsibility of the employer / licensee.
- Recognise the implications of a radiation incident and appreciate the importance of contingency planning.
- Understand the role of the regulator (FANR, Ministry of Environment, Environment Authority etc)

We encourage a friendly group atmosphere and support discussion between delegates. This is the best way to learn from each other.

Using Ionactive for your RPO training

After you have made an enquiry using the site contact pages (or emailing mark.ramsay@ionactive.co.uk directly), Ionactive will prepare a short questionnaire for you to complete. This will ask basic questions about your type of business, type of sources, whether the training venue is at the same location as the radiation sources, the number of delegates

attending the course, and other similar administrative matters. We will use this information to generate an RPO course proposal and quotation. Once you are happy with the course outline and proposal, we will begin to prepare your course and generate the training material upon receipt of your purchase order. During this process training dates will be agreed as well as other administrative matters such as international travel by Ionactive, hotels and local travel arrangements. We will also ask for information regarding your training facilities, seating layout, IT support and similar. If we are generating written printed training material, we will discuss logistics for sending this material to your site ahead of the training event.

Course delivery methods

Our courses will be delivered using a number of presentation tools and methods. These will include written printed notes, presentations via your IT systems, group discussions, group exercises and similar. If prearranged and suitable given your chosen training location, the training can also include a 'walk and talk' session around your ionising radiation sources and a practical element (e.g. radiation monitoring, radioactive spill management etc).

Course test and certification

We will provide a written test at the end of the course. An achievement certificate is awarded on successful completion of the test. Marking will take place back in the UK and certificates will be sent via international courier.

To guarantee training material quality assurance and trainer suitability, each certificate will be signed personally by the trainer (Mark Ramsay from Ionactive). Each certificate will display the RPA 2000 certification number and Chartered Radiation Protection Professional (CRadP) number for Mark Ramsay. The RPA 2000 certification number is given to all UK Radiation Protection Advisers once they have proved their competency and suitability in the area of radiation protection advice (this is renewed every 5 years by peer review).

The RPO certificate validity will be 3 years.

Administration & fees

The fees for the RPO training will be made up of three components:

1) Training preparation
2) Training delivery, test marking and certificate award
3) Travel, hotel and subsistence

The fixed fee price is for up to **8 delegates**, so it is advantageous for the client to maximise the number of delegates that attend. We can train up to 20 delegates at a time, if this is required then any fee additions can be discussed at the time of booking. 1

Ionactive will general provide a fixed price based on items 1-3 above which can be broken down into separate lines as required by the client. Ionactive will generally require a return business class flight (originating London Heathrow, UK) which will be added to the fixed price training fee. Expenses for local travel and hotel will be charged to the client as part of the fixed price fee (Ionactive will be happy to discuss with the client any preferred hotels or corporate rates that are available).

Course payment should be made by bank transfer (our bank details will be on our invoice). Generally, we would require 50% of the course fees at the time of formal booking, and then the final 50% post course delivery.

How much is this likely to cost? It is not possible to provide a standard price due to the bespoke nature of this RPO training. However, having looked at the market in the Gulf region, we are unlikely to be more expensive than the best prices you can achieve on a 'per delegate' basis for external (general) RPO courses. The **added value provided by Ionactive** is:

a) The course will be bespoke and designed for your specific needs.

b) The course is delivered on site (so your delegates will be commuting to work as normal).

c) On site bespoke courses may allow a 'walk & talk' session around your work area.

d) Onsite bespoke courses may allow a practical element (e.g. radiation monitoring).

e) The training is designed and delivered by a UK Qualified Expert (Radiation Protection Adviser).

f) During the training you / your company have access to the Qualified Expert who can provide advice on your specific site radiation safety issues.

g) The Ionactive trainer is Qualified Expert to many companies who are likely to have supplied and installed your radiation sources. Therefore the trainer will have significant knowledge regarding your radiation sources and your work with them.