

# Mark Ramsay

BEng MSc MSRP, CRadP

## Radiation Protection Adviser

Chartered Radiation Protection Professional

Qualified Expert in Radiation Protection

Radioactive Waste Adviser

<b>Personal Information</b>	<ul style="list-style-type: none"> <li>▪ Nationality: <b>British</b></li> <li>▪ Age: <b>52</b></li> </ul>
<b>Profile</b>	<p>Mark Ramsay is a keen and dedicated safety professional practicing as a Radiation Protection Adviser (RPA), certificated by RPA2000. His practical and advisory experience has been gained within the nuclear and non-nuclear (industrial / medical / security) sectors. Mark has utilised this experience with relevant qualifications, accreditations, and professional memberships to ensure delivery of radiological protection advice. This advice is administered to clients through his company Ionactive Consulting Limited. The scope of the advice given spans many different areas including a nuclear research reactor, irradiators, accelerators, a synchrotron, x-ray radiography (medical and industrial), oncology systems, x-ray security systems NORM &amp; geological specimens, radioactive waste management, oil and gas, airport security, sealed source security, radiation protection management and training. Whilst most of the clients are UK based Mark has also provided advice to companies in Qatar, UAE, Bahrain, New Zealand, Ireland, Libya and Angola. Mark has provided UK Emergency Services (CBRN / HAZMAT / DIM) with Radiation Protection Supervisor courses. Mark is also a certificated Radioactive Waste Adviser (RWA).</p> <p><b>RPA2000</b> is the UK National Body, recognised by the UK Health &amp; Safety Executive (HSE) which assesses core competency of individuals who practice as a Radiation Protection Adviser. Renewed every 5 years by 'continual professional development' with peer review.</p>
<b>Summary of Qualifications</b>	<ul style="list-style-type: none"> <li>• RPA2000 Certification (Latest No. 00002232, valid until 31/10/2026)</li> <li>• RWA Certification (Latest No. 0000424, valid until 31/5/2027)</li> <li>• MSc Radiation and Environmental Protection</li> <li>• BEng Environmental Engineering and Resource Management</li> <li>• NEBOSH Diploma in Occupational Safety and Health (Part 1)</li> </ul>

	<ul style="list-style-type: none"> <li>• NEBOSH Certificate in Occupational Safety and Health</li> <li>• National Radiological Protection Board (NRPB) Emergency Planning (Now HPA)</li> <li>• HPA Radiation Protection Update Courses</li> </ul>
<p><b>Full-Time Professional Experience as an Employee</b></p> <p><b>BEFORE IONACTIVE</b></p>	<ul style="list-style-type: none"> <li>▪ <b>Imperial College London (1997-2004)</b> Mark was principal RPA for Imperial College London and enjoyed the variety and depth of work across its 12 sites. He offered the full range of RPA services regulated under <i>IRR99</i>, <i>RSA93</i> and <i>IRMER2000</i> (which are derived from international standards such as ICRP and IAEA). He worked with sealed and unsealed sources, x-rays, accelerators, a nuclear reactor, radioactive waste and decommissioning. Advice and practical guidance on active and passive dosimetry, practical radiation protection, restriction of exposure etc was regularly given to academics, researchers and students.</li> <li>▪ <b>AWE Aldermaston (1994-1997)</b> Mark spent time as a 'Health Physics and Safety Specialist' at the Atomic Weapons Establishment (AWE) Aldermaston. This post was a natural career progression which included attendance on a 2-year MoD <i>Health Physics Training Programme</i>. The work at AWE was distinctly different from more recent work but utilised the same radiation protection concepts. Distribution of dosimetry, barrier clearance monitoring, workplace surveys, safety case assessments were typical practical tasks undertaken.</li> <li>▪ <b>RWE NUKEM / Amersham (various times 1991-1995)</b> After spending 1989-1991 as a full time Radiation Surveyor at Amersham (where he developed his practical skills), Mark had a variety of placements back at Amersham and RWE NUKEM over the next four years whilst obtaining more qualifications. This work including decommissioning support and radiological monitoring on several production and MoD sites.</li> <li>▪ <b>Amersham (1989– 1991)</b> Marks radiation protection experience started at Amersham after leaving school with A-levels. This work introduced him to practical radiation protection concepts and set his career in motion.</li> </ul>
<p><b>Examples of Recent Client Work by Ionactive Consulting Limited</b></p>	<ul style="list-style-type: none"> <li>▪ <b>IonActive Consulting limited (2001 onwards)</b> Mark set up Ionactive Consulting Limited as an independent consultancy to offer RPA / RWA advice to many users (generally non-nuclear sector) including Universities, Museums, Industry, Medical, Security and Consultancies. The company fully incorporated during July 2005. Further details can be found at <a href="http://www.ionactive.co.uk">www.ionactive.co.uk</a></li> </ul> <p>Some typical examples of RPA Client Work.</p>

**Reactor Facility**

The company was RPA to the Imperial College London CONSORT research reactor at Silwood Park. CONSORT has now been decommissioned. Ionactive was fully involved in the decommissioning process taking the role of RPA and RWA up to the point that the facility was totally dismantled to level ground.

**NORM / Geological Specimens**

Ionactive is RPA to a UK client which held the largest inventory of naturally occurring radioactive materials (NORM) in the form of geological specimens. The company has provided advice on monitoring, dosimetry, radioactive material stores, dose assessment of radon levels, and provided advice during regulator inspections.

Ionactive has been involved in numerous NORM related projects in both the UK and Middle East. Recent projects have included the decommissioning of a NORM (Po-210) fume filter and the decontamination of a large NORM contaminated building. These projects in particular required a strictly controlled working environment, controlled area and buffer (change) zones, personal air sampling (measurement and dose assessment), selection and use of suitable PPE/RPE, monitoring for alpha contamination on many different types of services, sentencing and clearance monitoring etc.

Currently Ionactive is working for one of the largest banks in the UK proving advice on Radon exposure and use of X-rays throughout the UK.

**Medical X-ray / Radiotherapy Facilities**

Ionactive is RPA to world leading companies who design and build linear accelerators for medical radiotherapy treatment. Ionactive provides RPA support to their UK manufacturing site as well as for the design and build of treatment bunkers around the world. Some unique instrumentation problems are supported (e.g. pulsed x-ray sources are used) and the regular monitoring and assessment of neutron doses is required due to the accelerator energies used (in some cases up to 25MV). More recently Ionactive has been involved in supporting MR linac shielding design and installation for the major suppliers in the UK.

Ionactive is RPA to a world leading company supplying medical diagnostic x-ray systems. A full RPA service is offered as well as bespoke project work as required. Recently Ionactive has been involved in a project to ensure their 10,000 service engineers (world-wide) have suitably dosimetry provision which they can take with them where ever they are in the world.

In 2023 Ionactive is supporting the design and construction of a radiotherapy centre in Guilford, new diagnostic facilities in Coventry, a new R&N linac facility in Crawley and much more.

#### ***X-ray Security Systems***

Ionactive is RPA to two of the UK's largest manufacturer / suppliers of x-ray / accelerator security equipment. Work has involved general RPA duties as well as equipment critical examinations and design calculations.

#### ***Sealed radioactive source security***

Ionactive has acted as a consultant to a UK Government Department looking at sealed source security (including storage locations, material accountancy and risk assessment).

#### ***RPA to major UK airport***

Ionactive is RPA to a major UK airport. Radiation safety advice is given regarding operation of x-ray security systems and EDT units, radiation safety management and RPS provision and training.

#### ***Large Irradiators***

Ionactive is RPA to the largest operator of sterilisation plants in the UK which involves providing advice for 5 Co-60 irradiators and electron / beam systems. Whilst these systems do not reside on nuclear sites, their protective systems, plant controls and management systems need to be comparable (sites typically contain > 10 PBq, delivering product dose rates of 10-50kGy/ treatment). Ionactive has provided advice on their dosimetry system, suitable monitors, change control procedures, contingency, site exercises and planned maintenance.

The RPA is also involved in the Co-60 loading and unloading procedures which are considered a critical task for each site – requiring the support of a dedicated team of operatives, engineers and managers.

#### ***Non Destructive Testing (NDT)***

Ionactive is RPA to several NDT companies in the UK who use radioactive sources (Ir-192, Se-75, Co-60) and accelerators for NDT in the nuclear and non-nuclear sector. Ionactive is also RPA to several companies which support the oil and gas industry, and has recently completed two projects to build NDT enclosures on a massive scale for radiography of 10's tonne objects. Ionactive has designed the facility, undertaken the shielding calculations, designed the interlocks system and written the operating procedures. In addition, as RPA, Ionactive is ensuring suitably dosimetry and monitoring is available, local rules and risk assessments are conducted and that adequate radiation protection training has been undertaken.

#### ***Radioactive Waste Adviser (RWA)***

	<p>Mark Ramsay has been involved in providing advice and guidance to a number of sites regarding the use of radioactive materials and the generation of radioactive waste (including BAT assessments, radiological risk assessments, environmental discharge assessments and similar). During 2016 Mark was involved in the relocation of a site which held over 10,000 radioactive sources in sealed and unsealed forms. The work involved full decommissioning planning and work for environmental permit surrender, as well as applications for permits for the new site.</p>
<p><b>Additional Professional Activities</b></p>	<ul style="list-style-type: none"> <li>▪ <b>Council Member of the UK Society for Radiological Protection (SRP)</b> Mark spent three years as a member of this leading UK Society and served on its Governing Council.</li> <li>▪ <b>Delivering talks / conference papers and similar</b> Mark has delivered conference papers and talks on various aspects of radiation protection.</li> <li>▪ <b>Ionactive Consulting Limited Website</b> The Ionactive website at <a href="http://www.ionactive.co.uk">www.ionactive.co.uk</a> contains a substantial range of free resource for all who have an interest in radiation protection. The site continues to be a substantial project and currently offers a radiation protection news service, a FAQ section, a glossary, links and much more.</li> </ul>
<p><b>Training Activities</b></p>	<ul style="list-style-type: none"> <li>▪ <b>Radiation Protection Training</b> Through Ionactive, Mark provides radiation protection training to many of its clients and other companies besides. This training includes specifically designed onsite training as well as running a monthly 2-day residential training courses at the Ionactive training venue.  Ionactive is a recognised provider of radiation safety training services (CBRN) for the UK Police and Fire and Rescue Service.  Ionactive routinely provides radiation safety courses overseas to Radiation Protection Officer (RPO) level.  Mark Ramsay through Ionactive released a landmark online RPS training course - attracting over 750 delegates in the first 24 months (to January 2023). Adapting after the Covid-19 pandemic has been vital and successful.</li> </ul>
<p><b>Professional Memberships</b></p>	<ul style="list-style-type: none"> <li>▪ Member: Society for Radiological Protection (MSRP)</li> <li>▪ Affiliate Member: Association of University Radiation Protection Officers</li> <li>▪ Chartered Radiation Protection Professional (CRadP)</li> </ul>

Please feel free to visit the Ionactive Consulting Site for more information  
[www.ionactive.co.uk](http://www.ionactive.co.uk)

# Certificate of Competence to be a Radiation Protection Adviser

The Board of RPA 2000 certifies that

***Mark Stuart Ramsay***

meets the Criteria of Competence specified by the Health and Safety Executive for the purposes of the definition of a Radiation Protection Adviser in the Ionising Radiations Regulations 2017.

*Holding a Certificate from an Assessing Body does not, of itself, make the holder a **suitable** RPA for a particular employer to consult, as required by Regulation 14(1). It is a recognition of competence, sufficient to show that the individual satisfies the general definition of an RPA in Regulation 2.*



Chairman of Board

  
Assessment Secretary

This certificate is valid for five years from 1 November 2021

Certificate No: 00002232

## ***RPA 2000***

This certificate is issued by RPA 2000, an Assessing Body recognised by the HSE,  
DS009, Dartington Hall, Dartington, Devon, TQ9 6EN



Established for the registration of radiation protection professionals for the public benefit.

This is to certify that

**Mark Ramsay**

through their membership of



The Society for Radiological Protection

has been registered by The Council and is hereby authorised  
to use the style or title of

**Chartered Radiation Protection Professional (CRadP)**

Chair



Deputy Chair



Dated 1 January 2020

Registration No. C0554

RPC Licensee No. 001  
This certificate is the property of The Council  
Returnable on request or de-registration



# Certificate of Competence to be a Radioactive Waste Adviser

The Board of RPA 2000 certifies that

***Mark Stuart Ramsay***

meets the Criteria of Competence specified by  
the UK Environment Agencies for the purposes of the definition of a  
Radioactive Waste Adviser in support of radioactive materials and waste  
legislation for the protection of the environment.

*Holding a Certificate from an Assessing Body does not, of itself, make the  
holder a suitable RWA for a particular employer to consult. The permit holder is  
responsible for ensuring that any Radioactive Waste Adviser appointed is  
'suitable' to give  
relevant advice on that permit holder's specific business*



Chairman of Board

  
Assessment Secretary

This certificate is valid from 1<sup>st</sup> June 2022 and will expire on 31<sup>st</sup> May 2027,  
unless formally extended in writing by RPA 2000.

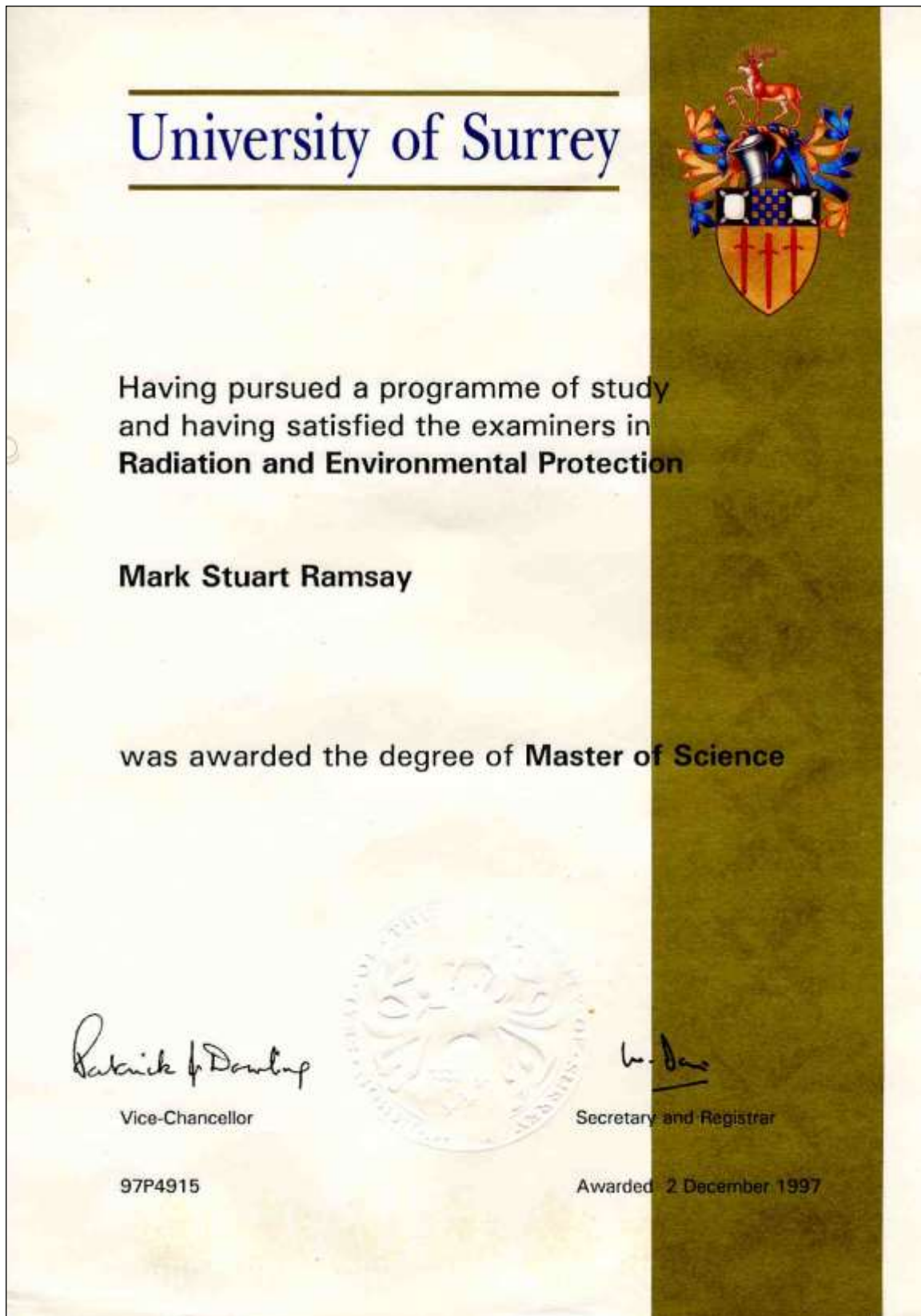
Certificate No: W – 0000424

## ***RPA 2000***

This certificate is issued by, and remains the property of, RPA 2000,  
an Assessing Body recognised by the UK Environment Agencies,  
RPA 2000, DS009, Dartington Hall, Dartington, Devon, TQ9 6EN  
Company No 03925117



## MSc Radiation Protection



## NEBOSH - Diploma

# NEBOSH

The National Examination Board in Occupational Safety and Health

## NATIONAL DIPLOMA IN OCCUPATIONAL SAFETY AND HEALTH Part 1

This is to certify that:

**MARK STUART RAMSAY**

has satisfied the Examiners and was

awarded this Diploma on: **8 September 1999**

**WITH CREDIT**



Chairman



Chief Executive

Master Log Diploma Number: **A01512**

Embossed with the Board's seal

