

Relevant qualifications for personal radiation licences

Updated November 2024

EPA 1142/23: This information sheet details the requirements for a person applying for a licence, under the Radiation Protection and Control Act 2021 to use or handle radioactive material or operate radiation apparatus.

Introduction

The two different types of personal radiation licences issued under the *Radiation Protection and Control Act 2021* are:

- **Apparatus:** [Licence to operate ionising radiation apparatus](#) (Form 24).
- **Radioactive material:** [Licence to use or handle radioactive material](#) (Form 23).

This information sheet outlines the most common types of professionals and activities which require a radiation licence. The following table details the different scenarios which covers:

- the occupation or activity which involves the use of radiation
- a short description of the scope of practice for the use of radiation
- the appropriate supporting evidence required to be provided (unless otherwise specified, uncertified copies of documents are accepted)

If you feel your specific situation is not adequately described in this information sheet, please contact the EPA Radiation Protection Branch to seek advice specific to your circumstances.

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Abbreviations

ACPSEM	Australasian College of Physical Scientists and Engineers in Medicine
AHPRA	Australian Health Practitioner Regulation Agency
AINDT	Australian Institute for Non-Destructive Testing
CMPS	Certified Medical Physics Specialist
CRPSS	Certified Radiopharmaceutical Science Specialist
EPA	South Australian Environment Protection Authority
TEAP	Training, Education and Assessment Program
TEQSA	Tertiary Education Quality and Standards Agency
VSBSA	Veterinary Surgeons Board of South Australia

Occupation	Licence type	General purpose	Supporting evidence
Medical radiation practitioners			
Diagnostic Radiographer	Apparatus	Operation of all diagnostic X-ray apparatus for the purpose of human radiography.	AHPRA (General Registration) Diagnostic Radiographer
Nuclear Medicine Technologist	Apparatus	Operation of X-ray absorptiometry apparatus. Operation of computed tomography apparatus for the purpose of nuclear medicine.	AHPRA (General Registration) Nuclear Medicine Technologist
	Radioactive materials	Handling of radioactive sources and material for the purpose of nuclear medicine.	
Radiation Therapist	Apparatus	Operation of radiotherapy apparatus.	AHPRA (General Registration) Radiation Therapist
	Radioactive materials	Handling of radioactive sources and material for the purpose of brachytherapy.	
Medical officers			
Radiologist	Apparatus	Operation of all diagnostic X-ray apparatus for the purpose of human radiography.	AHPRA (Specialist Registration) Radiology

Occupation	Licence type	General purpose	Supporting evidence
Nuclear Medicine Physician	Radioactive materials	Handling of radioactive sources and material for the purpose of nuclear medicine.	AHPRA (Specialist Registration) Nuclear Medicine
Radiation Oncologist	Apparatus	Operation of radiotherapy apparatus.	AHPRA (Specialist Registration) Radiation Oncology
	Radioactive materials	Handling of radioactive sources and material for the purpose of brachytherapy.	
Medical Practitioner Specialist: <i>Orthopaedics, Plastics (including Burns).</i> <i>Registrar in the above specialties including Non accredited registrars, Service Registrars, Fellows, Advanced trainees</i>	Apparatus	Operation of mini C-arm fluoroscopy apparatus for the purpose of clinical practice as a medical practitioner specialist in a surgical field.	AHPRA (Specialist Registration); and EPA radiation exam. Or AHPRA (General Registration) Proof of registrar employment; or admission to registrar college program/training program; and EPA radiation exam.
Medical Practitioner Specialist: <i>Cardiology/Cardiothoracic surgery, Neurosurgery, Vascular.</i> <i>Registrar in the above specialties including Non accredited registrars, Service Registrars, Fellows, Advanced trainees</i>	Apparatus	Operation of full-sized Fluoroscopy apparatus (under direct radiographer supervision) for the purpose of clinical practice as a medical practitioner specialist in a surgical field.	AHPRA (Specialist Registration); and EPA radiation exam. or AHPRA (General Registration) and Proof of registrar employment; or admission to registrar college program/training program; and EPA radiation exam.
Remote area healthcare workers			
Remote Area Medical Practitioner	Apparatus	Operation of plain diagnostic X-ray apparatus for the purpose of human radiography in defined rural and remote emergency settings.	AHPRA (General Registration) Medical Practitioner; and Appropriate rural & remote radiography course.
Remote Area Registered Nurse	Apparatus	Operation of plain diagnostic X-ray apparatus for the purpose of human radiography in defined rural and remote emergency settings.	AHPRA (General Registration) Registered Nurse; and Appropriate rural & remote radiography course.

Dental practitioners			
Dentist	Apparatus	Operation of plain, panoramic & cephalometric X-ray apparatus for dentistry.	AHPRA (General or Specialist Registration) Dentist
		Operation of plain, panoramic, cephalometric & cone-beam computed tomography X-ray apparatus for dentistry.	AHPRA (General or Specialist Registration) Dentist; and EPA radiation exam.
Dental Hygienist	Apparatus	Operation of plain, panoramic & cephalometric X-ray apparatus for dentistry.	AHPRA (General Registration) Dental Hygienist; and OPG and/or cephalometric training from nationally recognised organisations; or EPA radiation exam.
		Operation of plain, panoramic, cephalometric & cone-beam computed tomography X-ray apparatus for dentistry.	AHPRA (General Registration) Dental Hygienist; and OPG and/or cephalometric training from nationally recognised organisations; and EPA radiation exam.
Dental Prosthetist	Apparatus	Operation of plain X-ray apparatus for dentistry	AHPRA (General Registration) Dental Prosthetists; and Cert IV Dental radiography modules (HLTDEN021, 022 and 023).
		Operation of plain, panoramic and/or cephalometric X-ray apparatus for dentistry.	AHPRA (General Registration) Dental Prosthetists; and Cert IV Dental radiography modules (HLTDEN021, 022 and 023); and OPG and/or cephalometric training from nationally recognised organisations; or EPA radiation exam.
		Operation of plain, panoramic and/or cephalometric & cone-beam computed tomography X-ray apparatus for dentistry.	AHPRA (General Registration) Dental Prosthetists; and Cert IV Dental radiography modules (HLTDEN021, 022 and 023); and OPG and/or cephalometric training from nationally recognised organisations; and EPA radiation exam.

Occupation	Licence type	General purpose	Supporting evidence
Dental Therapist	Apparatus	Operation of plain, panoramic & cephalometric X-ray apparatus for dentistry.	AHPRA (General Registration) Dental Therapist
		Operation of plain, panoramic, cephalometric & cone-beam computed tomography X-ray apparatus for dentistry.	AHPRA (General Registration) Dental Therapist; and EPA radiation exam.
Oral Health Therapist	Apparatus	Operation of plain, panoramic & cephalometric X-ray apparatus for dentistry.	AHPRA (General Registration) Oral Health Therapist
		Operation of plain, panoramic, cephalometric & cone-beam computed tomography X-ray apparatus for dentistry.	AHPRA (General Registration) Oral Health Therapist; and EPA radiation exam.
Dental Assistant	Apparatus	Operation of plain X-ray apparatus for dentistry.	TEQSA Cert III in Dental Assisting; and Academic transcripts of Cert IV modules in Dental radiography (HLTDEN021, 022 and 023).
		Operation of plain, panoramic and/or cephalometric for dentistry.	TEQSA Cert III in Dental Assisting; and Academic transcripts of Cert IV modules in Dental radiography (HLTDEN021, 022 and 023); and OPG and/or cephalometric training from nationally recognised organisations; or EPA radiation exam.
Chiropractor			
Chiropractor	Apparatus	Operation of plain diagnostic X-ray apparatus for the purpose of chiropractic practice.	AHPRA (General Registration) Chiropractor
Scientists			
Radiochemist	Apparatus	Operation of a cyclotron for the purpose of radiochemistry.	Relevant professional qualification (eg degree in science, chemistry, etc); and EPA radiation exam.
	Radioactive materials	Handling of radioactive sources and material for the purpose of radiochemistry.	

Occupation	Licence type	General purpose	Supporting evidence
Radiology Medical Physicist OR Radiology Medical Physicist Registrar	Apparatus	Operation of diagnostic X-ray apparatus in the practice of a radiology medical physicist.	ACPSEM Registration: CMPS in Radiology Medical Physics OR Enrolment in the relevant ACPSEM TEAP; and EPA radiation exam.
Nuclear Medicine Medical Physicist OR Nuclear Medicine Medical Physicist Registrar	Apparatus	Operation of hybrid-computed tomography X-ray apparatus in the practice of a nuclear medicine medical physicist.	ACPSEM Registration: CMPS in Nuclear Medicine Physics OR Enrolment in the relevant ACPSEM TEAP; and EPA radiation exam.
	Radioactive materials	Handling of radioactive sources and material in the practice of a nuclear medicine medical physicist.	
Radiation Oncology Medical Physicist OR Radiation Oncology Medical Physicist Registrar	Apparatus	Operation of radiation therapy and planning CT apparatus in the practice of a radiation oncology medical physicist.	ACPSEM Registration: CMPS in Radiation Oncology OR Enrolment in the relevant ACPSEM TEAP; and EPA radiation exam.
	Radioactive materials	Handling of radioactive sources and material in the practice of a radiation oncology medical physicist.	
Radiopharmaceutical Scientist OR Radiopharmaceutical Scientist Registrar	Apparatus	Operation of a cyclotron for the purpose of radiopharmacology.	ACPSEM Registration: CRPSS OR Enrolment in the relevant ACPSEM TEAP; and EPA radiation exam.
	Radioactive materials	Handling of radioactive sources and material for the purpose of radiopharmacology.	
Engineering, mining, industrial & research			
Engineer <i>Installation & Service Technicians, Calibration & Quality Assurance, etc</i>	Apparatus	Operation of X-ray apparatus for the purpose of installation, service, and maintenance of X-ray apparatus.	Relevant professional qualification (eg degree in engineering, biomedical science, applied science, etc); and EPA radiation exam.
Borehole logging <i>Geologist, Geophysics Technician, Wireline Field Technician, etc</i>	Apparatus	Operation of borehole logging apparatus which produces ionising radiation.	Relevant professional qualification (eg degree in geophysics, environmental science, etc); and EPA radiation exam.
	Radioactive materials	Operation of borehole logging apparatus which contains a sealed radioactive source.	

Occupation	Licence type	General purpose	Supporting evidence
X-Ray analysis <i>X-Ray Diffraction Open Beam, X-Ray Diffraction Enclosed, X-Ray Fluorescence Analysis, etc</i>	Apparatus	Operation of an X-ray analysis apparatus.	Relevant occupational training; and EPA radiation exam.
Radiation gauges <i>Moisture/Density Meter, Neutron Generator, Sealed Source Gauge, etc</i>	Radioactive materials	Handling of radioactive sources and material contained within a radiation gauge.	Relevant occupational training; and EPA radiation exam.
Industrial Radiography <i>NDT Technicians, Mineral Exploration, Manufacturing, etc</i>	Apparatus	Operation of X-ray apparatus for the purpose of industrial radiography.	Certification in NDT Radiography & Radiation Safety by a provider endorsed by the AINDT Certification Board; or EPA radiation exam.
	Radioactive materials	Handling of radioactive sources and material for the purpose of industrial radiography.	
Researcher <i>Laboratory Technician, Research Scientist, etc</i>	Apparatus	Operation of X-ray apparatus for the purpose of research. Animals and/or inanimate objects only.	Relevant professional qualification (eg degree in science, applied science, medicine, etc); and EPA radiation exam.
	Radioactive materials	Handling of radioactive sources and material for the purpose of research.	
Veterinary practitioners			
Veterinary Surgeon General	Apparatus	Operation of plain X-ray apparatus for veterinary practice.	VSBSA (Primary Registration)
Veterinary Surgeon Specialist		Operation of all diagnostic X-ray apparatus for veterinary practice.	VSBSA (Specialist Registration) (Veterinary Radiology)
Veterinary Technologist/Technician; Veterinary Nurse		Operation of plain X-ray apparatus for veterinary practice..	Bachelor's degree in Veterinary Technology from an Australian University; Certificate IV in Veterinary Nursing

Further information

Legislation [Online legislation](#) is freely available.

General information

Environment Protection Authority

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