Radiation Safety Procedure

Section 1 - Purpose

(1) This document sets out Charles Sturt University's (the University) procedures for the management of radiation and radiation safety.

(2) It is intended to ensure:

a. the University recognises its duty of care to all persons in its workplaces, including staff, students, contractors, volunteers and other visitors,
b. a safe and healthy workplace through a planned and systematic approach to radiation use,
c. compliance with the Radiation Control Act, the Radiation Control Regulation, relevant codes of practice and standards, and
d. references to all procedures and other instruments used by the University to manage and oversee the safe use of radioactive materials, irradiating apparatus and radiation facilities used in teaching, research or clinics.

Scope

(3) This procedure includes external compliance requirements, and is overseen by the Radiation Safety Committee (RSC). Specific procedures and information relating to activities involving radiation can be found as associated information to this procedure and on the Radiation Safety Committee website.

(4) This procedure applies to any persons associated with the University who use, or support the use of:

a. radioactive materials,
b. irradiating apparatus,
c. radiation areas, or
d. high powered laser devices (class 3b and 4).

(5) These persons may include:

a. staff,
b. students,
c. clients or patients of clinics or enterprises,
d. research participants,
e. contractors and maintenance persons,
f. anyone who may be subjected to radiation exposure while involved with university approved activities, and
g. other visitors to the University.

Section 2 - Glossary

(6) For the purpose of this procedure:

a. Act – means the Radiation Control Act 1990.
b. Dose limit – means the limit of radiation exposure for a radiation worker set by legislation, currently 20 millisieverts (mSv) per year averaged over 5 consecutive years, and not more than 50 mSv received in any one year. Note that dose limits set by the Regulation are different for members of the public.
c. ELMO – means the University's online learning platform, containing training modules in work health and safety, induction, equal employment opportunities, ethics and conduct, finance and soft skills.
d. Low dose – means the threshold for notifying a radiation worker that their personal monitoring device has registered a reading above 0.5 mSv (regardless of wear period), but is less than 30% of the dose limit calculated pro-rata for their relevant wear period
e. Occupationally exposed person – refer to radiation worker.
f. Outside professional activity - means professional activity with a third party outside the University which generates financial or in-kind benefits, as per the Employment Conditions Procedure - Additional Employment and University Consultancies.
g. Personal monitoring device – means a personal monitoring device (PMD) for the monitoring of exposure to ionising radiation.
h. Personal radiation exposure report – means a detailed summary of the radiation exposure received by a radiation worker during their period of employment or tertiary education at Charles Sturt University.
i. Radiation facility – means a room, area or laboratory where radiation-producing apparatus or radioactive materials can deliver doses of regulatory concern to radiation workers or the public.
j. Radiation Management Licence – means the licence issued by the NSW Environment Protection Authority to regulate, restrict or prohibit the possession, sale, storage, giving away, and disposal of regulated material to protect the community and the environment from exposure to radiation. A person responsible for regulated material must hold a radiation management licence in respect of the regulated material and must comply with any conditions to which the licence is subject.
k. Radiation Management Plan – means the Charles Sturt University Radiation Management Plan, published by the Radiation Safety Committee.
l. Radiation Monitoring – refers to a function of the Faculty of Science and Health Technical Support Unit, who are responsible for administering the provision of personal monitoring devices for the University.
m. Radiation Safety Committee (RSC) (the committee) – means the compliance committee established to ensure that the University has processes and policies in place to conform with relevant legislation and safety requirements and that they are maintained and complied with across the University.
n. Radiation subject – means a teaching subject that involves the use of radiation in educational activities, as approved by the RSC prior to the commencement of such activities.
o. Radiation worker - means a staff member or student who is exposed to radiation directly arising out of, or in the course of the person's employment or tertiary education activities. Referred to as an 'occupationally exposed person' in the relevant legislation.
p. Regulation – means the Radiation Control Regulation (2013).
q. Tertiary education – means higher education generally provided by universities and other higher education institutions such as Technical and Further Education (TAFE) institutes and Registered Training Organisations (RTOs) and incorporates undergraduate and postgraduate coursework and clinical placement activities.
r. Warning dose – means the industry standard threshold for notifying a radiation worker when their personal monitoring device has received 30% of the prescribed dose limit or greater.

Section 3 - Policy

(7) This procedure supports the Research Policy and should be read alongside that policy.

Section 4 - Procedures

Part A - Application for Radiation Safety Committee approval

(8) All activities, research projects and teaching subjects involving radiation conducted at the University must have written approval from the Radiation Safety Committee (RSC) before work can commence if they involve:

a. radioactive substances,
b. irradiating apparatus, or
c. high powered laser devices (class 3b or class 4).

(9) Each application must be completed and submitted by the primary contact. The primary contact:

a. is responsible for ensuring the compliance of a research project, teaching subject procurement or disposal process, and
b. must not be a student.

(10) The primary contact is:

a. usually the principal investigator/chief researcher or the supervisor for research proposals,
b. the subject coordinator for teaching proposals, or
c. a radiation user licence holder who works in the relevant facility for acquisition and disposal applications.

(11) Researchers and subject coordinators must follow the instructions on the RSC website to complete and submit the relevant application for their situation.

(12) Research proposals must include at least one radiation licence holder in the research team.

(13) Teaching proposals must include at least one radiation licence holder in the teaching team.

(14) Application will be made using the relevant forms available from the RSC website.

(15) Applications will be considered by the committee at their scheduled meetings. A list of meeting dates and agenda closing dates is on the RSC website.

(16) If radiation work is proposed to commence before the next scheduled meeting applications can be considered executively.

(17) Applicants will be notified of the outcome within 10 working days of a meeting or a request for executive review.

(18) Radiation work cannot commence without the written approval of the RSC.

Acquisitions and disposals of radiation materials or irradiating apparatus

(19) All acquisitions and disposals of irradiating apparatus and radioactive materials must have written approval from the RSC before procurement or disposal processes can commence.

(20) Applicants must follow the instructions on the RSC website and the University's Procurement Policy and procedures to complete and submit the relevant application for their situation.

Permit to work (radiation facilities)

(21) Maintenance work on irradiating apparatus or radiation facility must be performed by suitably qualified and trained persons.

(22) Maintenance staff and contractors must be inducted and adhere to the University's contractor management procedures before entering a radiation facility to undertake any form of maintenance or other works within the radiation facility.

(23) A permit is required from a member of the RSC if work is required on irradiating apparatus or fittings and fixtures that are directly involved in radiation work, e.g. that have direct contact with radioactive substances, for example sinks, plumbing or potentially contaminated surfaces. Before any work can commence, a member of the RSC must determine that irradiating apparatus is deemed safe for the proposed work or locked off where applicable, substances are shielded and any radioactive contamination has been removed. They can give clearance by signing the Permit to work (radiation facilities) form or by email.

(24) Facility staff must keep the signed permit (and approval email if applicable) in their facility records.

Part B - Identification of radiation workers

Staff

(25) All staff who work with ionising radiation in any capacity will:

a. be identified as radiation worker (with ‘radiation worker’ noted on the employee’s record within the human resource information system),
b. be enrolled in the relevant induction training,
c. be issued a personal monitoring device, which they must wear at any time there is the possibility of exposure to radiation,
d. adhere to relevant legislative and institutional requirements regarding radiation safety and monitoring,
e. have personal radiation exposure records kept, and
f. be provided with a copy of personal exposure records upon exit from the organisation, on request or when exposure levels exceed set thresholds.

(26) Heads of schools, centre directors, clinic directors and technical managers must:

a. identify all radiation workers at the commencement of their employment and when their status as a radiation worker changes, to ensure employment records are updated, personal monitoring devices issued and appropriate records kept, and
b. notify the Faculty of Science and Health Technical Support Unit of the commencement, cessation or change in status of a radiation worker via the Radiation Monitoring email (radmon@csu.edu.au).

(27) The Faculty of Science and Health Technical Support Unit will:

a. place regular posts on the University What’s New bulletin and email heads of schools, centre directors and technical managers. The posts will include the information contained in the previous clause, as well as informing all staff that if they work with radiation, they need to contact Radiation Monitoring (radmon@csu.edu.au) immediately to arrange a personal monitoring device if they have not already been issued with one for the current wear period,
b. liaise with Division of People and Culture (DPC), heads of schools and relevant supervisors to ensure all radiation workers are identified at commencement of their employment so that DPC can add a ‘radiation

worker' note to their personnel file,

c. maintain a register of radiation workers,
d. email the names and staff ID numbers of relevant staff to DPC (dpc@csu.edu.au) when staff are identified as radiation workers, and
e. request that the following persons be enrolled in the Radiation General Induction ELMO module by emailing names and staff IDs to the ELMO team (elmo@csu.edu.au):
    i. staff radiation workers, and
    ii. higher degree by research students working on research projects approved by the Radiation Safety Committee (RSC).

(28) The Research Integrity Unit will provide students enrolled in approved radiation subjects with access to relevant induction training modules.

(29) DPC will add an occupancy condition of 'radiation worker' on the personnel file of any staff member identified as a radiation worker. The condition will be based on the occupancy (person), not the position, unless the position description for the role specifically indicates designation as a radiation worker.

(30) The ELMO team will enrol the staff member in the Radiation General Induction ELMO module. A notification will automatically be emailed to the staff members advising them that they have been enrolled in the module and need to complete it.

(31) As part of the identification process, DPC, head of school or supervisor will notify the Faculty of Science and Health Technical Support Unit of all staff identified as radiation workers using the Radiation Monitoring email (radmon@csu.edu.au) at the time of appointment or when their status as a radiation worker changes.

Students – Coursework

(32) The Faculty of Science and Health Subjects team will identify subjects where exposure to radiation may occur as part of the education activities. The RSC will maintain a list of these subjects and will audit them to ensure all coursework or placements involving radiation work have approval from the committee. Once approved, these subjects will be referred to as 'radiation subjects'.

(33) The Faculty of Science and Health Technical Support Unit will generate (or request from the Systems) an up-to-date listing of all students currently enrolled in one or more radiation subjects using the Radiation Monitoring email (radmon@csu.edu.au). This listing is to be provided regularly, at the following points in time (at the minimum):

a. at the commencement of session,
b. after census date and include a list of all students who have withdrawn from the course, and
c. at the completion of session and detail all students who have graduated or withdrawn from course after census date.

(34) All students whose enrolment includes approved radiation subjects will:

a. be identified as a radiation worker (student),
b. be enrolled in the relevant induction training,
c. be issued a personal monitoring device, which they must wear at any time there is the possibility of exposure to radiation,
d. adhere to relevant legislative and institutional requirements regarding radiation safety and monitoring,
e. have personal radiation exposure records kept, and
f. be provided with a copy of personal exposure records on request or when exposure levels exceed set

thresholds.

(35) Subject co-ordinators of subjects involving the use of ionising radiation will advise the Faculty of Science and Health Technical Support Unit of any students who withdraw from the subject or take a leave of absence following the census date, using the Radiation Monitoring email (radmon@csu.edu.au).

(36) The Faculty of Science and Health Technical Support Unit will deactivate personal monitoring devices for students who have withdrawn, been excluded or taken a leave of absence and will request for the return of such devices.

(37) If a device is not returned on request the Faculty of Science and Health Technical Support Unit may arrange for the student to be billed for the cost of the device.

Students - Research

(38) Copies of all Research Proposals approved by the RSC will be forwarded to the Faculty of Science and Health Technical Support Unit via the Radiation Monitoring email (radmon@csu.edu.au) so that students (and staff) listed as research team members on the project can be identified as radiation workers.

(39) All students involved in work with ionising radiation will:

a. be identified as a radiation worker (student),
b. be enrolled in the relevant induction training,
c. be issued a personal monitoring device, which they must wear at any time there is the possibility of exposure to radiation,
d. adhere to relevant legislative and institutional requirements regarding radiation safety and monitoring,
e. have personal radiation exposure records kept, and
f. be provided with a copy of personal exposure records on request or when exposure levels exceed set thresholds.

Visitors

(40) All visitors to the University who are planning to work with radiation must seek the approval of the RSC, and then bring and wear their own personal monitoring device prior to commencement of any radiation work. If a visitor is unable to supply their own personal monitoring device, they must contact the Radiation Monitoring team (radmon@csu.edu.au) a minimum of 30 days prior to commencing radiation work to arrange a personal monitoring device for use.

(41) Anyone with enquiries about permissions required should contact the RSC (email RadiationSafety@csu.edu.au).

Part C - Training and induction

(42) The following persons must complete the training specified by the Radiation Safety Committee (RSC):

a. staff members identified as radiation workers,
b. all teaching staff listed on approved teaching proposals for radiation subjects,
c. all research team members listed on approved research proposals,
d. staff working in radiation areas, including those who work with radiation who aren't defined as radiation workers under the Regulation (e.g. dentistry staff only conducting intraoral x-rays, or technical staff supporting radiation work), and
e. Students enrolled in radiation subjects (including workplace learning subjects) immediately after census date of

each session.

(43) The RSC will review completion of the required training on a quarterly basis (in line with each committee meeting).

(44) The Research Integrity Unit will generate a report on the induction training module/s containing:

a. completion rates,
b. the names of those who have completed the module, and
c. the names of those who have not yet completed the module, and their managers/supervisors.

(45) Module completion reports will be added to the agenda of each RSC meeting and non-compliance discussed.

(46) Based on the recommendation of the committee, the presiding officer of the RSC will notify non-compliant staff and their line managers to inform them of the non-compliance, and advise corrective actions.

Part D - Personal monitoring devices

(47) the University must monitor and record cumulative doses of ionising radiation received by all radiation workers in their employ.

(48) Personal monitoring devices which detect and measure exposure to ionising radiation are issued to those who are involved in any one or more of the following purposes:

a. radiation therapy,
b. industrial radiography,
c. nuclear medicine,
d. veterinary radiography,
e. scientific research in laboratories classified as medium level laboratories or high level laboratories where radioactive substances that are not contained in sealed sources are used,
f. diagnostic or interventional radiology (other than dentistry, veterinary and chiropractic applications),
g. neutron based detection, analysis and gauging (only when used in bore-hole logging),
h. servicing of ionising radiation apparatus or devices containing radioactive substances, and
i. any other purposes where the Radiation Safety Committee determines the wearing of a personal monitoring device is appropriate, including:
    i. dentistry staff who operate any apparatus that requires a Radiation User Licence, including Cone Beam Computed Tomography (Cone Beam CT) and Orthopantomogram (OPG).

(49) A radiation worker must wear their provided personal monitoring device during any activities involving ionising radiation.

Part E - Management of personal monitoring devices

Administration

(50) The Faculty of Science and Health Technical Support Unit will administer the provision of personal monitoring devices for the University, with oversight of approved processes by the Radiation Safety Committee (RSC) to ensure compliance with current legislation.

(51) The Technical Support Unit will assign a technical officer who will be responsible for the day to day management of the personal monitoring devices. The technical officer will:

a. collect and collate all staff and student information relating to the management of the personal monitoring devices,
b. provide collated data and order requirements to the University's personal monitoring device service provider using the web portal or supplied software to ensure the receipt of the personal monitoring devices in required timeframes,
c. arrange the distribution of the personal monitoring devices to radiation workers,
d. arrange the collection of the personal monitoring devices from radiation workers and forward to the service provider for analysis, including all control devices as applicable,
e. maintain the personal radiation monitoring devices database, and
f. maintain the Radiation Monitoring email address (radmon@csu.edu.au) and process enquiries received.

Issuing of personal monitoring devices

(52) The PMD issue and return schedule can be viewed on the Radiation Safety Committee website.

(53) All staff and students will be advised of the PMD issue and return schedule and contact details for support in relation to their personal monitoring devices when their device is issued.

(54) All students may collect their device in person or request to have the personal monitoring device mailed directly to them by emailing Radiation Monitoring (radmon@csu.edu.au) and providing their name, student number and current mailing address.

Collection and return of personal monitoring devices

(55) All staff and students will be required to return their personal monitoring devices by the due date in person to the assigned Technical Officer or by mailing it to:
Attn: Radiation Monitoring, Technical Support Unit
Building 263
Charles Sturt University
Boorooma Street
Wagga Wagga NSW 2678

Lost, non-returned or damaged personal monitoring devices

(56) It is the responsibility of a radiation worker or student to return the personal monitoring device in good condition and within the required timeframes.

(57) A lost personal monitoring device must be reported to the University immediately using the Radiation Monitoring email (radmon@csu.edu.au).

(58) The radiation worker or student must lodge an incident report via the University's online incident reporting system. Subsequent investigation may be undertaken.

(59) The radiation worker or student must not participate in any activities involving radiation until a new personal monitoring device has been issued and received.

(60) A fee of may be charged for the loss or non-return of the personal monitoring device.

(61) Personal monitoring devices which are returned damaged as a result of carelessness or neglect may result in the same investigation and/or fee as a lost or non-returned device.

Return of personal monitoring devices prior to graduation

(62) Students must return all personal monitoring devices or report them as missing before the end of their final session or a fee may be charged. Fees must be paid in full or the personal monitoring device returned before the student is allowed to graduate.

(63) Radiation Monitoring will:

a. Approximately one month before on-campus classes end – Confirm potential graduands with relevant course director, placement coordinator or discipline lead,
b. Three weeks before on-campus classes end – Email students with instructions for returning their personal monitoring device/s by the required dates or reporting any lost devices (including associated fees),
c. During examination period – Collect and record returned personal monitoring devices,
d. Beginning of the second week of exam period – Follow up on any outstanding devices, and
e. Beginning of the week after examinations end – Charge student accounts for:
    i. devices not returned,
    ii. reported as lost,
    iii. where no tracking information has been provided, or
    iv. where no other contact has been made by the student regarding the return of their device/s.

(64) Students who have completed their course requirements and finished their final placement must return all personal monitoring devices on the first business day after their placement or other practical course work ends. This can be done in one of the following ways:

a. Return the device to a Charles Sturt University campus in person:
    i. Hand it to the designated staff member listed on the Personal Monitoring Device Issue and Return Schedule, or
    ii. Place in the designated personal monitoring device return box.
b. Return via mail:
    i. Immediately dispatch the device via express post or courier, and
    ii. Provide the parcel tracking details or consignment number and carrier information to radmon@csu.edu.au.

(65) Students who have lost their personal monitoring device must:

a. Lodge an incident report via the University's online incident reporting system, or
b. Make payment of the relevant fee/s on their account at least one week prior to grade release.

(66) Any device not returned will result in a fee being charged to the student's account. If the fee is not paid or the device returned by one week prior to grade release, a financial hold will be placed on their account, preventing the release of results and graduation progression.

(67) Students must contact radmon@csu.edu.au as soon as possible if they become aware of any delays or issues with the return of their personal monitoring device.

Multiple devices

(68) A Charles Sturt University issued personal monitoring device will be considered a primary device and must be worn for all university radiation related activities.

(69) A Charles Sturt University issued personal monitoring device must not be used for non-Charles Sturt University use. The radiation worker must arrange their own personal monitoring for outside activities.

(70) A staff member may be issued with a personal monitoring device by another organisation for use with approved Outside Professional Activities. It is the responsibility of the wearer to track collated doses for multiple devices.

(71) Where a person is issued with multiple personal monitoring devices (e.g. for convenient access at multiple sites/campuses), collated doses received by multiple devices will be tracked by the University.

Part F - Personal radiation exposure records

(72) The University is required to keep a radiation exposure record for each radiation worker to whom a personal monitoring device is issued. The personal radiation exposure record must detail:

a. the amount of radiation to which the person has been exposed, as measured by the device, and
b. the results of any tests carried out by the University in relation to the person for the purpose of determining the amount of radiation to which the person has been exposed.

(73) When a radiation worker or student is set up in the system and issued with a personal monitoring device, all details listed under clause 30 of the Protection from Harmful Radiation Regulation 2013 are required. The Faculty of Science and Health Technical Support Unit will collect and enter these details. Personal information will be dealt with in accordance with the University's Privacy Management Plan. The exposure record must contain the following particulars:

a. the full name, gender, date of birth, staff/student ID number, position title and email address of the occupationally exposed person,
b. the current home address of the occupationally exposed person or, if the person is no longer employed by the employer, the person’s last known home address,
c. the date of commencement of employment (and if applicable the date of cessation of employment) as an occupationally exposed person,
d. the kind of work performed by the occupationally exposed person,
e. details of the types of ionising radiation to which the occupationally exposed person may have been exposed in the course of employment with the employer, including information about radioactive substances in unsealed form (if any) to which the occupationally exposed person may have been exposed,
f. details of any radiation accidents in which the person has been involved or by which the person may have been affected,
g. details of the personal monitoring device worn by the occupationally exposed person, and
h. the results of monitoring levels of radiation exposure of the occupationally exposed person.

(74) The University must:

a. keep all records relating to exposure of the workforce, including personal exposure records for occupationally exposed persons issued with personal monitoring devices,
b. provide a copy of personal exposure records to radiation workers on request or when exposure levels exceed set thresholds, and
c. provide a copy of personal exposure records to staff radiation workers upon exit from the organisation.

(75) The University will issue a radiation worker with a copy of their radiation exposure records on request to Radiation Monitoring (radmon@csu.edu.au).

Exit of radiation workers from the University

(76) When an occupationally exposed staff member leaves the University, the University must:

a. provide a copy of the personal radiation exposure record of the occupationally exposed person to that person following notification of termination of employment, and
b. supply a copy of an employee's personal radiation exposure record to other employer/s when requested by the employee who is taking up employment as an occupationally exposed person with another employer.
c. All reports should be issued in a standard format and MUST carry the following warning: 'THESE RECORDS SHOULD BE KEPT SAFELY AND PERMANENTLY AND BE GIVEN TO ANY FUTURE EMPLOYER EMPLOYING YOU AS A RADIATION WORKER.'

(77) The Division of People and Culture (DPC) maintains a record of all identified radiation workers. When a staff member's employment is terminated, or a casual appointment ends, DPC will check the personnel file of the exiting employee. If they have been identified and noted as a radiation worker, the following procedure must be followed:

a. The staff member must return any personal monitoring devices issued to them by the University.
b. DPC will:
    i. email Radiation Monitoring (radmon@csu.edu.au) to advise that the employee is exiting the University, with a copy to the Radiation Safety Committee (RSC) (RadiationSafety@csu.edu.au). This is an automated process set up in the coding on radiation workers' personnel files,
    ii. Advise the exiting employee that:
        - they must return all personal monitoring devices on their last day of work, and
        - they must provide a forwarding email or address as a final personal exposure report will be provided once all personal monitoring devices have been returned and reported on (which may be some months after exit from the University).
c. maintain a forwarding email or address for the exiting employee until the final exposure report is provided. Following return and analysis of all personal monitoring devices and the reports becoming available, Radiation Monitoring will:
    i. export the personal exposure record for the exited staff member from the database. The report must include the following disclaimer as specified in clause 30 of the Protection from Harmful Radiation Regulation 2013: 'THESE RECORDS SHOULD BE KEPT SAFELY AND PERMANENTLY AND BE GIVEN TO ANY FUTURE EMPLOYER EMPLOYING YOU AS A RADIATION WORKER.' and
    ii. send the report to the DPC (dpc@csu.edu.au) with a copy to the RSC (RadiationSafety@csu.edu.au).
d. The Division of People and Culture will:
    i. send an email or letter and personal radiation exposure record to the exiting employee, with a copy to the RSC (RadiationSafety@csu.edu.au), and
    ii. maintain a copy in the individual's personnel file.
e. The Governance Officer, Research Integrity Unit will include a copy of the personal radiation exposure record and email sent to the exiting employee on the agenda of the next RSC meeting. This allows the committee to ensure an exposure report has been sent for every radiation worker's exit notification received.

Part G - Exceeded radiation dose threshold notifications

(78) The dose thresholds in this section have been set by the Radiation Safety Committee (RSC) in the Charles Sturt University Radiation Management Plan. These thresholds are based on:

a. the industry standard 30% notification threshold, and

b. the advice of the NSW Environment Protection Authority (EPA) that recommends organisations set their action and investigation levels below the levels set by the regulatory authority, to ensure the health and safety of employees and other persons for which they have a duty of care. For further advice or information, please refer to ICRP 103 and the IAEA General Safety Requirements Part 3, or contact the EPA.

(79) For the purposes of this procedure, the following terms are used for the various dose thresholds and associated notifications:

a. Dose limit – 20mSv per year, averaged over a period of 5 consecutive calendar years. This is the maximum dose limit allowed for an occupationally exposed person under Schedule 5 of the Protection from Harmful Radiation Regulation 2013.
b. Exceeded dose limit – A dose exceeding the dose limit for the wear period:
    i. six month wear period – >9.6mSv,
    ii. three month wear period – >4.8mSv, or
    iii. one month wear period – >1.5mSv.
c. Warning dose – A dose exceeding 30% of the dose limit for the wear period:
    i. six month wear period – 3mSv to 9.6mSv,
    ii. three month wear period – 1.5 mSv to 4.8 mSv, or
    iii. one month wear period – 0.5 mSv to 1.5 mSv.
d. Low dose – A dose registered by a personal monitoring device that exceeds 0.5mSv, but is less than 30% of the dose limit for the wear period:
    i. six month wear period – 0.5mSv to 3mSv, or
    ii. three month wear period – 0.5mSv to 1.5mSv.

(80) The Faculty of Science and Health Technical Support Unit receives an email notification from the personal monitoring device service provider when a device has exceeded the low dose threshold. The service provider highlights doses of 0.5 mSv or higher, regardless of wear period.

(81) Dose notifications exceeding 0.5mSv are always passed on to the relevant radiation worker or student and investigated by the Subject Coordinator or supervisor where required.

(82) The RSC must be advised when the warning dose notification threshold has been exceeded.

Low dose notification

(83) A Low Dose Notification is sent to a radiation worker or student when their personal monitoring device reading exceeds 0.5 mSv, but is less than 30% of the dose limit for their relevant wear period.

(84) The Faculty of Science and Health Technical Support Unit will:

a. notify the radiation worker or student within 10 business days of advice from the service provider,
b. advise the radiation worker or student by email using the 'Low dose notification' script approved by the RSC. This notification will include instructions of who to contact if the radiation worker has any concerns. A dose report is to be attached to the email, and
c. where the notification involves a staff member, provide a copy of the notification and dose report to the Division of People and Culture (DPC) for inclusion in the staff member's records.

Second low dose notification within a year

(85) When a second Low Dose Notification is sent to a radiation worker or student within a year, the radiation worker

is instructed to lodge an incident report providing an explanation of possible causes of the dose received.

(86) The Faculty of Science and Health Technical Support Unit will:

a. notify the radiation worker or student within 10 business days of advice from the service provider,
b. advise the radiation worker or student by email using the 'Second low dose notification within a year' script approved by the RSC. This notification will include instructions of who to contact if the radiation worker has any concerns. The dose report provided by the personal monitoring device service provider is to be attached to the email, and
c. where the notification involves a staff member, provide a copy of the notification and dose report to the DPC for inclusion in the staff member's records.

Warning dose notification

(87) A warning dose notification is sent to a radiation worker or student when their personal monitoring device reading exceeds 30% of the dose limit for their relevant wear period.

(88) The Faculty of Science and Health Technical Support Unit will:

a. notify the radiation worker or student within five business days of advice from the service provider,
b. advise the radiation worker or student by email using the 'Warning Dose Notification' script approved by the RSC. This notification will include instructions of who to contact if the radiation worker has any concerns, and how to lodge an incident report on the online incident reporting system within five business days. The dose report provided by the personal monitoring device service provider is to be attached to the email,
c. once the radiation worker or student lodges an incident report via the online incident reporting system and the incident report is assessed by the Subject Coordinator or supervisor, file a copy of the assessed report,
d. send a copy of the assessed incident report to the RSC, and
e. where the notification involves a staff member, also provide a copy of the notification and report to the DPC for inclusion in the staff member's records.

Exceeded dose limit notification

(89) An exceeded dose limit notification is sent to a radiation worker or student when their personal monitoring device reading exceeds the dose limit for their relevant wear period.

(90) The personal monitoring device service provider is required to report these doses directly to the Radiation Control Section of the NSW EPA, and the University will be required to provide a report of the investigation conducted within seven working days after notice of result. Therefore, the timelines below are tighter than those for low and warning dose notifications.

(91) The Faculty of Science and Health Technical Support Unit will:

a. immediately inform the RSC of the exceeded dose notification received from the personal monitoring device service provider,
b. notify the radiation worker or student within one business day of advice from the service provider,
c. advise the radiation worker or student by email using the 'Exceeded dose limit notification' script approved by the RSC. This notification will include instructions of who to contact if the radiation worker or student has any concerns, and how to lodge an incident report on the online incident reporting system within three business days. The dose report provided by the personal monitoring device service provider is to be attached to the email,
d. once the radiation worker or student lodges an incident report via the online incident reporting system and the

incident report is assessed by the Subject Coordinator or supervisor, file a copy of the assessed report,

e. send a copy of the assessed incident report to the RSC, and
f. where the notification involves a staff member, also provide a copy of the notification and report to the DPC for inclusion in the staff member's records.

(92) The RSC will advise the Deputy Vice-Chancellor and Vice-President (Research) of the exceeded dose and include the assessed incident report as soon as it is received by the committee.

(93) the University will be required to respond to the NSW EPA and provide a report of the investigation conducted into the exceeded dose.

(94) For more details of dose limits and notification requirements, please refer to the Radiation Monitoring section of the Radiation Management Plan, available from the Radiation Safety Committee website.

Section 5 - Guidelines

(95) Personal monitoring device wearers will:

a. Always wear the personal monitoring device using the holder supplied. The holder incorporates filters which allow an assessment of the radiation quality.
b. Wear the personal monitoring device correctly. It should be worn on the chest with the provider's logo facing away from the body.
c. Always wear the personal monitoring device under a lead apron, if used. As the device is used to measure radiation exposure to the body, it should not be worn outside of protective clothing. However, care should be taken not to shield the badge by pens, buckles, name tags, etc.
d. Take care not to damage the personal monitoring device. Pin holes, water, pressure, chemicals and heat can damage the device and prevent evaluation of the dose.
e. Never store personal monitoring devices near radiation sources when not being worn.
f. Return the personal monitoring device promptly, in accordance with the Issue and Return Schedule. Devices must be returned to the dosimetry service provider by the University upon receipt of a new batch. Extended delay increases the chances of accidental exposure to the device and may also result in fees being incurred by the wearer.
g. Return the personal monitoring device should be returned for assessment immediately and lodge an incident report if it is suspected that a wearer has received a significant radiation dose.

Status and Details

Status	Current
Effective Date	30th November 2021
Review Date	30th November 2026
Approval Authority	Deputy Vice-Chancellor (Research)
Approval Date	25th November 2021
Expiry Date	Not Applicable
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