



RURAL  
MEDICAL  
IMAGING

Locations: Innisfail Mareeba Atherton Ingham

# Radiation Safety Management Plan



## Table of Contents

Radiation Safety Management Plan .....	4
<b>Introduction</b> .....	4
<b>General Information</b> .....	4
<b>Regulatory Requirements</b> .....	5
<b>Who to contact regarding Radiation Safety</b> .....	5
<b>Licencing Requirements</b> .....	5
<b>Registration Requirements</b> .....	6
<b>Radiation Safety Testing</b> .....	6
<b>Compliance of Equipment with the Regulations</b> .....	6
<b>Quality Assurance/Maintenance/Safety</b> .....	6
<b>The Radiation Protection Principal</b> .....	7
<b>Doses</b> .....	7
<b>Hazard assessment</b> .....	8
<b>Personal Radiation Monitoring</b> .....	8
<b>Document review</b> .....	8

# Radiation Safety Management Plan

## Introduction

As part of achieving accreditation it is a requirement to have documented working rules dealing with the use of ionising apparatus. Rural Medical Imaging personnel are required to be informed of any hazards and undergo appropriate training.

There may also be a requirement of equipment and users to comply with appropriate Codes of Practice and Australian Standards as a part of Licence and/or registration conditions.

In order to meet the mandatory requirements of the applicable State or Territory legislation we must meet the following:

- Individuals or Companies are appropriately licenced
- Ionising apparatus must be registered
- Periodic compliance testing must be undertaken
- Working rules for the control of radiation exposure in the workplace
- Radiation safety training provided to all employees and other persons as needed
- Plans for dealing with radiation accidents and emergencies
- Personnel monitoring requirements
- Disposal requirements, and
- Appointment of radiation safety officer (RSO)

## General Information

All Rural Medical Imaging staff will read this document as part of their orientation. All others who are to spend time on site for work experience or for other training purposes are to read this document.

Services include:

- General Radiography
- Ultrasound
- CT

## Regulatory Requirements

The following is a list of legislation that relates to the operation of diagnostic radiology Practice in our State or Territory:

- Radiation Act 2005
- Radiation Regulations 2007

## Who to contact regarding Radiation Safety

Radiation Safety Officer      Mr Mark Giffin  
Contact telephone              0438612337

Licencee:                          Mark Giffin  
Contact telephone:              0438 612 337

Radiation Safety Program:    Department of Health in the State or Territory  
Contact telephone:              1300 253 942

ARPANSA:                        Australian Radiation Protection and Nuclear Safety Agency  
Contact telephone:              1800 022 333

Personal Monitoring provider:

Contact telephone:

Radiation Consultants:

Contact telephone:

## Licensing Requirements

The State/Territory regulations requires that persons (an individual, company or institution) who:

- Operate
- Use
- Service
- Install
- Service
- Maintain
- Repair

Any ionising radiation apparatus may only do so if a licence is held under the Act.

## Registration Requirements

Reference to registration requirements for ionising apparatus are found in the following legislation:

- Health Professions Act 2005
- Radiation Act 2005
- Radiation Regulations 2007

## Radiation Safety Testing

Reference to the testing of ionising apparatus is held by Chief Radiographer and on server

## Compliance of Equipment with the Regulations

There are regulations issued covering the requirements for ensuring that all equipment used by Rural Medical Imaging is safe both for staff and patients.

Rural Medical Imaging has appointed an accredited radiation safety officer who will ensure that all equipment is tested to the letter of the regulations.

Should any repair or modification of equipment be required only appropriately qualified, licenced and registered individuals/companies will be contracted.

## Quality Assurance/Maintenance/Safety

All equipment will be regularly serviced and checked to maintain a high standard of reliability, consistency and safety.

- Gen/Screening Equipment: Monthly
- Ultrasound Equipment: Monthly
- CT Equipment Monthly

All equipment service will be carried out by appropriately qualified, licenced and registered individuals/companies.

Below is a list of preferred suppliers of equipment maintenance and repair services:

- Mr Scott Carey

## The Radiation Protection Principal

The Radiation Protection Principle is the principle that persons and the environment should be protected from unnecessary exposure to radiation through the processes of:

- Justification
  - Limitation and
  - Optimisation
- (a) Justification involves assessing whether the benefits of a radiation Practice or the use of a radiation source outweigh the detriment;
- (b) Limitation involves setting radiation dose levels, or imposing other measures, so that the health risks to any person are below levels considered unacceptable;
- (c) Optimisation – In relation to the conduct of a radiation Practice, or the use of a radiation source, that may expose a person or the environment to ionising radiating, means keeping:
- The magnitude of individual doses of, or the number of people that may be exposed to, ionising radiation; or
  - If the magnitude of individual doses, or the number of people that may be exposed, is uncertain, the likelihood of incurring exposures of ionising radiation as low as reasonably achievable taking into account economic, social and environmental factors.

### Doses

#### Occupational

Whole Body:	50 mSv in any one year 20 mSv per year averaged over 5 year period
Lens of the Eye:	150 mSv per year
Skin:	500 mSv per year
Hands and Feet:	500 mSv per year

#### Public

Whole Body:	1 mSv per year averaged over any 5 year period
Lens of the Eye:	15 mSv per year
Hands and Feet:	50 mSv per year

These radiation dose levels have been determined with the ALARA principle in mind i.e. keeping dose levels As Low As Reasonably Achievable (ALARA). This includes patients, staff

and the environment. Radiation protective devices have been supplied and are to be used in a professionally and clinically acceptable manner.

Protective devices may include, but are not restricted to:

- Gonad shields
- Lead aprons
- Lead rubber
- Radiation filters
- Lead lined doors and windows

Techniques for reducing radiation dose may include, but are not restricted to:

- Close doors when x-ray room is in use
- Use of gonad shielding, filters and aprons as required
- Remove any person from the room who doesn't need to be there
- Provide protective devices to those still in the room who may be assisting
- Use the lowest possible exposure to gain a diagnostic image
- Limit the number of exposures to the minimum required to make a diagnosis

### Hazard assessment

Radiation has known risks when exposed to it. It is the responsibility of all members of staff to maintain their own safety. This may be facilitated by (but not limited to):

- Not entering x-ray rooms with closed doors
- Taking note of radiation warning signs and lights
- Only holding patients during an examination when necessary
- Using appropriate radiation protection (self)
- Locking doors when x-ray rooms are in use

### Personal Radiation Monitoring

Where required by State or Territory legislation, staff that come into contact with ionising radiation adhere to wearing approved personal monitoring devices from an approved monitoring supplier.

### Document review

This document has been compiled and reviewed in August 2021 whilst reviewing and updating our Safety and Quality Manual and will be reviewed again in Nov 2024 as per Review Schedule in our Safety & Quality Manual.