



# Regulatory Impact of Ionising Radiation on the University of Melbourne

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- **Commonwealth**
  - **Security arrangements**
  - **Importation**
- **Victorian State**
  - **Radiation Act 2005**
  - **Radiation Regulations 2007**

**Developing and maintaining a robust system for  
managing ionising radiation supports legal  
compliance**



- **The development and maintenance of the management system is centrally controlled**
- **Responsibilities include:**
  - **Policy and procedure**
  - **University Radiation Safety Adviser**
  - **Radiation Management Licence**
  - **Laboratory certification**
  - **Central storage**
  - **Advice and guidance**
  - **Training**

**The resources the University has committed to maintaining the system and compliance are extensive**



- **Radiation Act 2005**
  - **Licencing framework**
    - **Management Licence**
    - **Use Licence**
- **Radiation Regulations 2007**
  - **Lists spontaneous emitting materials**
  - **Sets dose limits**
  - **Certificates of compliance**
  - **Expiry dates**
  - **Fees**



- **Management Licence**
  - **10 schedules**
  - **University has compliance requirements in 8 of the 10 schedules**
  
- **Conditions of licence**
  - **Schedule specific**
  - **Codes of Practice**
    - **Australian Radiation Protection and Nuclear Safety Agency (ARPANSA)**
    - **National Health and Medical Research Council (NHMRC)**



- **10 Schedules**

- 1: The general conditions
- 2: Radiation practices involving ionising radiation apparatus
- 3: Radiation practices involving sealed source apparatus
- 4: Radiation practices involving sealed sources
- 5: Radiation practices involving radioactive material
- 6: Radiation practices involving procuring, arranging or conducting research involving irradiation of persons
- **7: Radiation practices involving non-ionising radiation sources**
- **8: Radiation practices involving sale of radiation sources**
- 9: Radiation practices involving transport of radioactive material
- 10: Radiation sources currently possessed



- **Radiation Management Licence – Accurate**
- **Radiation Management Plan – Encompassing**
- **Condition of all the schedules – Training**



- **Licence review prior to renewal:**
  - **Location of radiation sources**
  - **Old radiation sources**
  - **New radiation sources**

## **Resources**

**3 members from Common Services**

**120 locations over 6 sites visited**

**5 months to review**



- **Included in the Plan**
  - Procedure
  - Management Plans
  - Licencing
  - Guidance and advice
  - Laboratory assessment
  - Review monitoring results
  - Storage
  - Training

## Resources

3 members from Common Services

Physical requirements

Monitoring equipment

Ongoing





- **Develop training packages**
  - **Performance criteria**
  - **Training presentation**
  - **Guidance notes**
  - **Competency assessment**

## Resources

**2 members from Common Services**

**8 months to develop**

**Radiation Committee agenda item**

**Meetings**

**Trial runs**



- **3 members of staff (50% - 75%)**
  - Salary = \$190,000
  - Physical resources = \$52,500
  - Monitoring equipment = \$1,500
- **Biennial Radiation Management Licence**
  - Fees = \$15,500
- **Site Visits**
  - Travel x 3 = \$1,800
  - ARPS conference = \$5,000
  - ANSTO training = \$4,000
  - University of Queensland = \$ 2,400

**Total**  
**~ \$270,000**



- **2008**
  - $^{60}\text{Co}$  7TBq – \$62,000
- **2009**
  - Radiation store – \$30,000
- **2010**
  - Radiation store inventory – \$40,000
- **2011**
  - Radiation monitoring equipment – \$45,000





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