Ionising Radiation Stakeholder Group and Guidance Material

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AUSA
Australasian University Safety Association

The Ionising Radiation Stakeholder Group

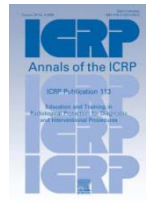
A reference to AUSA members using ionising radiation

The Guidance Material – relates to

- The scope of the project
- The development of the project
- The outcomes from the project
- The implementation of project at the University of Melbourne

Approximately 50% of AUSA members use ionising radiation.

Management of Radiation in Australian



Ionising radiation is possibly the most regulated of all science tools

- The International Commission on Radiological Protection acts as a harmonizing authority for the world's regulators
- In Australia and New Zealand there are 10 regulating authorities – 9 are in Australia
- Regulators have different management practices and physical compliance requirements
- Conducting research requires a high degree of familiarity with a number of regulatory bodies

Radiation Management at the University of Melbourne

The management of radiation across universities is a problem which few researchers or administrators fully understand

The University of Melbourne has

- **Approximately 800 personnel use ionising radiation.**
- **120 plus sites where radiation practices are conducted on our campuses**
- **Practices are also undertaken across the country and around the world**

Maintaining a compliant system can be a full time job in its own right

Project Aims

The project focused on producing

- Common guidance material for universities and research institutes engaged in using of ionising radiation.

The aims were in two parts

- To identify shortcomings in current radiation practices that affect AUSA institutes and allied areas
- Formulate practical solutions to these issues

We received approximately 80% response on the survey

AUSA Membership Questionnaire

A questionnaire was sent to managers of AUSA institutes where ionising radiation is used

Their responsibilities were to

- Oversee the radiation policies of the institute
- Maintain their radiation practices

The questionnaire was divided into two parts

- First to see what topics were of interest to the institutes
- Second to gauge how the institutes managed radiation practices

AUSA Membership Questionnaire

Respondents were asked to rank topics in order of relevance

- Incident reporting
- Emergency Management
- Laboratory certification
- Waste management
- Purchasing
- Regulatory and licensing
- Standard Operating Procedures
- Risk management
- Storage and security
- Training
- Transport
- Audits
- Legacy items
- Other requirements

Survey Results – Part 1

Topics that were seen as important were

- **Consistency from regulators**
  - **Common approach by all jurisdictions to regulating possession and use**
  - **Nationally linked licensing accreditation**
  - **A common definition for ionising radiation**

Survey Results – Part 2

Topics that were seen as important were

- **Training and documentation**
  - **Advise on training and audits consistent for all users**
  - **Training linked to a national accreditation**
- **Gap analysis - audit programs similar to biological safety**
- **A common approach for Standard Operating System (SOP)**

Survey Results – Part 2

Topics that were seen as important were

- **Storage and security of radiation sources**
  - **Consistent federal approach for managing sealed and unsealed radiations**
  - **Security requirements to be consistent with risk**

Survey Results – Part 2

The second part of the questionnaire

- We posed a list of questions to see, how the respondents saw the overall management of radiation
  - Average time spent by the RSO working on radiation duties was one third of the position's allotted time
  - Radiation duties for most RSOs or radiation managers are secondary part of their position description - very few have radiation as the primary focus
  - Radiation management may lose out to other areas when allocating resources

Survey Results – Part 2

General findings are

- There is a need for greater regulatory consistency across all jurisdictions
- Training, standards, audits, licensing, storage and security are highlighted as needing consistency across all jurisdictions
- It maybe interpreted that there is under management of radiation practices and that this could potentially leads to an increase in risks
- There is hidden aspect - cost of compliance

Formulating Solutions

In October 2010 we attended the annual conference of ARPS where we discussed our findings with representatives from all sectors, government, big and small businesses and allied institutions.

Following the conference we were invited to present our findings from the survey to the Victorian branch of ARPS.

The Australasian Radiation Protection Society Inc (ARPS) is a professional society of members engaged in one or more aspects of radiation protection

Implementing Solutions

The project focused on effective ways of improving safety and management of ionising radiation

- Provided area managers and researchers with the tools required to work competently and safely
- Established the Electromagnetic Radiation Safety Committee
- Implemented a radiation web page
- Ran information sessions administrators
- Established University dose limits

Implementing Solutions

The project focused on effective ways of improving safety and management of ionising radiation by

- **Undertaking laboratory certification and audit programs of all areas where ionising radiation is used**
- **Investing in equipment that allows for the identification and quantification radioactive risk**
- **Setting up secure and safe radiation storage that is compliant with federal requirements**

Putting Outcomes Into Practice

Staff and students are involved in activities across the country and around the world. Systems must be capable of providing instruction and information appropriate to their needs.

Example

–The Cooperative Research Centre for Greenhouse Gas Technologies (CO2CRC)

What Has Been Achieved?

The Ionising Radiation Stakeholder Group and guidance material set out to

- Promote understanding of ionising radiation issues across legislative areas
- Educate all (users and administrators) of the risks, safety requirements and legal obligations associated with ionising radiation
- Reduce risk and improve safety by investing in equipment that allows the user identify and quantify radioactive risk

Future Plans

Establish a network of like minded institutions for the dissemination of information connected with ionising radiation

Aknowledgement

Finally I would like to thank the following

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