



Australian Government

Australian Radiation Protection and Nuclear Safety Agency

INSPECTION REPORT

Licence Holder: Australian National University	Licence Number: S0027
Locations inspected: Australian Phenomics Facility (APF), Research School of Astronomy and Astrophysics (RSAA) (Mt Stromlo campus) and College of Arts and Social Sciences (CASS)	Date of inspection: 17-20 August 2015
	Report No: R15/11513

An inspection was conducted under Part 7 of the *Australian Radiation Protection and Nuclear Safety Act 1998* (the Act). The purpose of the inspection was to assess compliance with the Act, applicable regulations, and licence conditions. The inspection was conducted as part of ARPANSA's baseline inspection program.

The scope of the inspection included an assessment of the three school's performance based on the source licence Performance Objectives and Criteria.

Background

The ANU is a research-intensive university located in Acton, Australian Capital Territory (ACT), with a campus at Mt Stromlo, ACT, and specialises in a range of activities that requires the use of radioactive materials and ionising and non-ionising radiation apparatus. The ANU source licence no. S0027 covers several separate schools, many of which use controlled apparatus and controlled materials as part of their research and teaching roles. In order to facilitate a more time-effective inspection of the ANU source licence, the schools have been divided into groups with the intention being to inspect them all over a 12 month period. This inspection included the APF, the RSAA at the ANU Mt Stromlo campus and the CASS.

The inspection consisted of a review of records, interviews, and physical inspections of RSAA, APF and CASS.

Observations

There had been a change of personnel in the Work Environment Group (WEG) since the previous inspection of May 2015. ANU advised that the tasks relating to licensing and reporting remained the same as previously indicated although specific responsibilities for operational radiation safety matters and regulatory/licensing issues had been divided between two senior WEG staff.

ANU's quarterly reports have been submitted to ARPANSA in a timely manner in recent years, and have contained relevant information, including details of compliance with the Act and the *Australian Radiation Protection and Nuclear Safety Regulations 1999*. Quarterly reports were coordinated through the WEG office with input from each of the schools consolidated into one final report to ARPANSA.

Other documentation required by ARPANSA such as Regulation 51 submissions and Regulation 53 disposal requests were also coordinated through the WEG office as needed.

Any person required to use controlled apparatus or controlled material undertook relevant in-house training. The training courses were of four hours duration. Training records were kept for each person

and made available to the trainee, their supervisor, Human Resources and WEG. Refresher training was required every five years. ARPANSA inspectors were shown training records for each individual who completed the training.

Servicing of controlled apparatus is delivered through service contracts with the relevant equipment suppliers.

ANU's *Radiation Safety Policy* and *Radiation Safety Procedures*, along with other radiation related documents, were available for viewing or by download from the ANU website. The procedures were comprehensive and ARPANSA inspectors considered them to be a satisfactory representation of the ANU plans and arrangements for licensing purposes meeting all relevant codes and standards. WEG staff advised that the plans and arrangements were under review in line with recent changes to personnel in WEG. Part of this review would also include a reassessment of the Terms of Reference for each of the safety committees. The review was expected to be finalised within 6-12 months.

Authorisation and access control was maintained by an electronic access control system. This was confirmed by observation as many areas were not accessible by students. For those areas that stored controlled apparatus or controlled material where students required access, they would be under the supervision of an authorised staff member with relevant training.

Radiation warning labelling and signage on laboratories, stores, and equipment was found to be deficient in some areas as highlighted below.

Findings

In general, it was found that the ANU had complied with the Act, applicable regulations, and licence conditions.

In relation to the *Radiation Safety Procedures* available on ANU's Internet site, ANU's performance may be improved by addressing the following performance deficiencies:

Performance Deficiencies:

1. Signage throughout the three schools inspected was found to be inconsistent or insufficient with relevant codes and standards. Examples included:
 - Use of a generic label that portrayed the ionising radiation hazard trefoil, laser hazard symbol and the non-ionising radiation hazard symbol irrespective of the type of equipment being used.
 - No ultraviolet warning labels on some equipment and spare UV globes.
 - Incorrect identification of X-ray apparatus type at the DEXA unit.

Several of these issues were rectified by the time of the exit meeting.

2. The protective eyewear available for laser use at the RSAA was not consistent with relevant codes and standards for all of the operational wavelengths of the lasers in use.
3. There was evidence that a personal monitoring badge at the APF had been used by a person to whom it was not assigned. Personal monitoring badges should only be worn by the nominated person. In exceptional circumstances where a badge is worn by a different person, the assessment service should be advised of the change when the badges are returned for assessment. In such an exceptional circumstance, however, one badge should never be worn by more than one person during the wearing period.