



Inspection report

Licence Holder: CSIRO Energy	Licence Number: S0025
Location inspected: Kensington, WA	Date/s of inspection: 15-17 May 2017
	Report No: R17/05897

An inspection was conducted as part of ARPANSA's baseline inspection program to assess compliance with the *Australian Radiation Protection and Nuclear Safety Act 1998* (the Act), the Australian Radiation Protection and Nuclear Safety Regulations 1999 (the Regulations), and conditions of the Source Licence S0025.

The scope of the inspection included an assessment of Energy's performance against the Source Performance Objectives and Criteria (PO&Cs) and consisted of a review of records, interviews, and physical inspection of sources.

Background

Energy is authorised under section 33 of the Act to deal with controlled apparatus and controlled material. The role of Energy is to deliver energy solutions for a sustainable future. Their research aims to improve the affordability, reliability and integration of renewable energy technologies, including solar, wind and biofuels. This inspection focussed on the CT scanners and laser apparatus.

Observations

In general, the management of radiation safety at the Energy site was found to be satisfactory.

Performance Reporting Verification

Energy's quarterly reports have been submitted to ARPANSA in a timely manner, and contained relevant information, including details of compliance with the Act and Regulations. Information for quarterly reports is coordinated by the Business Unit Radiation Safety Officer (BURSO) with input from each Energy site which is consolidated into one final report to ARPANSA.

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

Training

Persons using the controlled apparatus on the site are required to undertake training related to the particular hazard. Training records are maintained electronically and were verified during the inspection.

All Energy staff are required to undertake induction training in order to work on-site. These induction training records are maintained in hard copy form and on an electronic database. Access to the laboratory area requires swipe card access and is restricted to only personnel who have undergone induction training.

Radiation Protection

Energy management has demonstrated a commitment to radiation protection by establishing a policy to facilitate the safe and effective use of radiation. This is supported by a comprehensive Radiation Protection Plan (RPP) to achieve and maintain best practice and compliance with radiation legislation and ARPANSA licence conditions. Version 2.0 of the RPP was published in September 2015 and a table with the version number, details of the changes, endorsing person, approving person and issue date is included on the cover page. The RPP was last reviewed in September 2015 and it is a CSIRO requirement that the RPP be reviewed annually. The RPP also contained some internal inconsistencies however these had been advised to Energy during a previous inspection and would be addressed in a subsequent review of the document.

Physical Inspection

During the inspection of the controlled apparatus, Energy appeared to be in compliance with all aspects of the Australian Standard's AS2243.5:2004 *Safety in laboratories Part 5: Non-ionizing radiations-Electromagnetic, sound and ultrasound* and AS2243.4:1998 *Safety in laboratories Part 4: Ionizing radiations*.

Safe work instructions, each of which had been reviewed within the previous 12 months, were sighted adjacent to all controlled apparatus.

During the inspection the following non-ionising radiation source (LAD 5349) was determined to not be a controlled apparatus. It will be removed from the SIW and reported in the next quarterly report. The CT Scanner (LAD 3594) is deemed to be unrepairable by the manufacturer and will be disposed of by CSIRO.

Emergency Preparedness and Response

CSIRO staff follows the Kensington site emergency management plan and emergency response procedure requirements relating to evacuation exercises and emergency preparedness.

Findings

The licence holder was found to be in compliance with the requirements of the Act, the Regulations, and licence conditions.

The inspection revealed the following **area for improvement**:

Review of the Radiation Protection Plans.

It is expected that improvement actions be taken in a timely manner.