



Inspection report

Licence Holder: Department of Immigration and Border Protection	Licence Number: F0155
Location inspected: Container Examination Facility, Fremantle, WA	Date/s of inspection: 23 May 2017
	Report No: R17/06655
<p>An inspection was conducted as part of ARPANSA's baseline inspection program to assess compliance with the <i>Australian Radiation Protection and Nuclear Safety Act 1998</i> (the Act), the Australian Radiation Protection and Nuclear Safety Regulations 1999 (the Regulations), and conditions of Facility Licence F0155.</p> <p>The scope of the inspection included an assessment of Department of Immigration and Border Protection performance against applicable facility Performance Objectives and Criteria. The inspection consisted of a review of records, interviews, and physical inspection of the facility.</p> <p>Background</p> <p>The Container Examination Facility (CEF) is a prescribed radiation facility that encompasses a mobile linear accelerator system installed within a fully enclosed structure dedicated to the purpose of screening containerised sea cargo. The CEF recently underwent an upgrade (authorised under an approval issued in accordance with regulation 51 of the Regulations) which covered installation of the mobile system.</p> <p>In March 2017 the DIBP was issued with an amended facility licence. One change resulting from the licence amendment is that the standard to be applied to the CEF as a condition of licence changed from Radiation Health Series No.24 <i>Code of practice for the design and safe installation of non-medical irradiation facilities (1988)</i> to ANSI/HPS N43.3-2008 <i>Installations using non-medical x-ray and sealed gamma-ray sources, energies up to 10MeV</i>.</p> <p>Observations</p> <p>The DIBP's quarterly reports of compliance submitted to ARPANSA over the past two years were reported in a timely manner and contained relevant information, including compliance with the Act and the Regulations.</p> <p>No radiation accidents or incidents have been reported to ARPANSA in the two years preceding the inspection.</p> <p>The DIBP has in place a Competency Assessment Training Officer (CATO) scheme for operator training which includes the safe use of radiation emitting apparatus and devices and e-learning training modules which are available to staff on the DIBP intranet site.</p>	

The DIBP engages the services of an external radiation consultant to fulfill the role of its Radiation Safety Adviser (RSA). One of the services provided by the RSA is to certify the qualifications and competency of linear accelerator service engineers for the facility.

The RSA's annual inspection and survey report showed that all dose rate measurements associated with the operation of the CEF are below the relevant limits set in ANSI/HPS N43.3-2008.

The following configuration control aspects of the facility were inspected:

- Quarterly maintenance reporting including results of radiation surveys around the facility and tests of emergency stop buttons, emergency pull cords, and interlocks associated with the operation of the CEF.
- Draft operating procedures and a reviewed radiation safety management plan, both of which are scheduled for finalisation by 30 June 2017. All relevant operating instructions were found to be located at the CEF control panel.

The inspection team observed a scan of a shipping container. All audible warnings, lights, and illuminated signs were observed to be operational.

The inspection team conducted a preliminary assessment of the compliance status of the CEF against relevant requirements in ANSI/HPS N43.3-2008, it was observed that:

- a) The requirements relating to 'shielded installations' as defined in ANSI/HPS N43.4-2008 are applicable to the CEF
- b) The CEF is fitted with interlocks, and audible/visible alarms
- c) There are suitable means of exit for any person inadvertently remaining in the scanning hall during an exposure
- d) Clearly labelled emergency stop buttons and emergency stop pull-cords are available to terminate exposure should any person inadvertently remain in the scanning hall during an exposure
- e) Signs with the radiation 'trefoil' symbol and written warnings are posted at appropriate locations
- f) The dose rates at occupied areas and outside the CEF are within the limits set by ANSI/HPS N43.3-2008
- g) The DIBP has demonstrated a capacity to comply with sections of ANSI/HPS N43.3-2008 relating to:
 - i. Radiation surveys and re-evaluations by a qualified expert whenever changes are planned that would adversely affect radiation protection
 - ii. The review of safety instructions/procedures
 - iii. The arrangements for periodic inspection of shielding, interlocks and other safety devices
 - iv. The development and maintenance of a radiation protection program.

It is envisaged that future scheduled inspections of DIBP CEFs will further examine compliance against ANSI/HPS N43.3-2008.

Findings

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