



Inspection report

Licence Holder: Australian Nuclear Science and Technology Organisation (ANSTO) - Interim Waste Store	Licence Number: F0292
Location inspected: Lucas Heights, NSW	Date/s of inspection: 30-31 May 2017
	Report No: R17/06681
<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 the Facility Licence F0292.</p> <p>The scope of the inspection included an assessment of ANSTO's performance in the following areas: reporting and verification and event protection for the ANSTO Interim Waste Store (IWS). The inspection consisted of a review of records, interviews, and visit to the facility.</p> <p>Background</p> <p>ANSTO Waste Operations is responsible in effective control of the IWS. The operation of the IWS involves storage of a TN81 package containing 20 canisters of vitrified intermediate level waste and six CBF-C2 cemented drums of technological waste in an ISO container. The TN 81 package is a dual purpose cask used for both transport and storage of radioactive material. These wastes were generated from the reprocessing of HIFAR spent fuel. The IWS has been in operation for about 18 months.</p> <p>Observations</p> <p><i>Performance reporting verification</i></p> <p>In general, reporting of required information by IWS management has been accurate and timely. Event reports have been used to identify, communicate, and correct problems and have been captured in the GRC (Governance, Risk Compliance and Assurance) system in accordance with the ANSTO Event Reporting Process. This has ensured that adverse conditions are dealt with effectively. In general, corrective actions taken to address recent events have been effective. No notable events were reported related to the operation of the IWS.</p> <p>Safety events and issues are discussed at the monthly meeting of managers and supervisors for continuous improvement in safety practices and staff are encouraged to discuss any safety issues. Waste Management Services meet ANSTO Support Services on a bi-monthly basis to discuss any safety issues and undertake any corrective actions necessary to enhance safety in operation of the facility.</p>	

Various key performance indicators are used by Waste Operations to monitor operational performance. For example, safety performance indicators include the number of events (moderate and above), staff dose, completion of event investigation, number of personal contamination events and lost time injuries. Reported results are accurate and in line with the targets.

Event protection

External events that may impact on the safe operation of the facility are well documented in the IWS Safety Analysis Report (IWS-O-LA-SAR October 2014). Events include loss of services, fire, flood, earthquake, lightning strike, transport incidents, industrial activities, high winds and other severe weather events. The likelihood of these events, the impact of these events on the safety functions of the facility, and the control systems in place to maintain safety functions are well understood by Waste Operations staff.

Because the IWS is a low occupancy building, it is unlikely that a person would suffer physical injury or harm from seismic events, high winds, flooding, or lightning strike. The impact of an accident involving an F-18 aircraft on the TN81 Cask has been analysed in detail and there are no significant radiological consequences from such an event. The risk of radiological release from the IWS from loss of containment due to an external event is low to very low. In the event of failure of electrical services to the IWS, standby and uninterruptable power supplies are in place to maintain critical safety functions. The IWS is designed to withstand seismic activity and is consistent with the Australian Standard on seismic loading AS 1170.4 - 2007 *Structural design actions Part 4: Earthquake actions in Australia*.

The IWS is a new facility and its infrastructure is in good condition. Land management practices are implemented to reduce the effects of fires external to the IWS. The facility is equipped with an appropriate firefighting system.

Findings

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