



# Inspection report

<b>Licence holder:</b> ANSTO – Waste Management Services	<b>Licence number:</b> F0292
<b>Location inspected:</b> Lucas Heights Science and Technology Centre (LHSTC), Sydney	<b>Date/s of inspection:</b> 16-17 June 2020
	<b>Report no:</b> R20/06618
<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 2018 (the Regulations), and conditions of facility licence F0292.</p> <p>The scope of the inspection included an assessment of ANSTO’s performance at the Interim Waste Store (IWS) facility against the Performance Objectives and Criteria (PO&amp;Cs) for Configuration Management and Training. The inspection consisted of a review of records, ANSTO guides and standards for managing the facility. The inspection was conducted via virtual means due to the current COVID-19 pandemic.</p> <p><b>Background</b></p> <p>ANSTO Waste Management Services (WMS) is responsible for effective control of the IWS facility authorised under facility licence F0292 and other facilities including low and intermediate level waste processing and storage facilities under facility licence F0260.</p> <p>The operation of the IWS involves storage of a TN-81 package containing 20 canisters of vitrified intermediate level waste and six CBF-C2 cemented drums of technological waste in an ISO container. The TN81 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 facility has been in operation since December 2015. The plans and arrangements for managing safety at WMS apply to the IWS facility. This report should be read in conjunction with inspection report, R20/05792, which covers the same scope for the facilities operating under facility licence F0260.</p> <p><b>Observations</b></p> <p><b>Configuration management</b></p> <p>The Safety Analysis Report (SAR) defines the safe envelope of operation of the IWS facility including the operational limits and conditions (OLCs). These OLCs have been derived from the SAR of the facility taking into account the function of Structures, Systems and Components (SSCs). A systematic consideration of parameter limits, the functional capability and the performance levels of equipment and personnel have been taken into account in deriving the OLCs.</p> <p>The OLCs related to the IWS facility are mainly related to the TN-81 cask and six CBF-C2 cemented drums of technological waste. These include:</p> <ul style="list-style-type: none"> <li>• The temperature at the external metal surface of the TN 81 package</li> </ul>	

- Pressure in the TN-81 interspace
- The dose rate at the external surface of the DV-78 ISO container

The OLCs have been monitored in accordance with the inspection, testing and maintenance instructions specified in the TN-81 package operation and maintenance manual.

Maintenance of the 140 tonne DGR crane at the facility is performed in accordance with the maintenance schedule. The ARPANSA inspectors sighted a copy of the crane maintenance record and found the record up to date.

All changes at the IWS facility are undertaken in accordance with WMS's change control procedure (P-7496), and further details about the change control process are described in inspection report R20/05792. It is noted that there have been no changes to any aspects of the IWS facility that may have safety and security implications.

In general, inspectors found the configuration management process satisfactory and consistent with the safety analysis report for the facility.

### **Training**

The WMS training program is described in 'Training in Waste Management Services P-6599'. Retraining and refresher training are embedded in the WMS training program. Further details are described in inspection report R20/05792. For the IWS, the training is related to the operational performance of the TN-81 cask and the crane.

ANSTO uses training as a strategic performance tool to enhance both operator and facility performance. Managers are responsible for the competence of their staff and work effectively with training staff to ensure their qualification. Managers take ownership of training programs. The initial and continuing training programs are based on the manufacturer's recommendations, operating procedures, operation and maintenance manual, and the operational needs of the facility to ensure that workers are always competent to perform the tasks to which they are assigned.

Training effectiveness is evaluated by the manager observing a worker's performance during training and operation. The crane operator requires a high risk dogman's licence for crane operation. The installers of the crane (Kone) gave a demonstration of how to use the controller and crane to all staff. To assist with the movement, a wooden mock-up of the dual purpose TN-81 cask was built and all staff were observed using the lifting gear to move the wooden mock-up around the building and through the same steps as the actual TN-81 cask. This was observed by the supervisor and engineers undertaking the work. The use of this mock-up allowed assessment and refinement of how individuals operated the crane and load. Staff regularly use other cranes and so the lack of use of the facility crane will not prevent them retaining knowledge on how to operate cranes.

ANSTO participates in the TN-81 cask user group through virtual meetings and shares experience with international peers. The experience and information obtained from international peers are used in facility procedures to improve operational performance.

Inspectors found that ANSTO uses a systematic approach to training to maintain staff competence and ensure safe operation the facility.

### **Findings**

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

The inspection did not reveal any areas of improvement.

*No written response to this report is required*  
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