



Australian Government



Nuclear-based science benefiting all Australians

**UNCLASSIFIED**

Interim Waste Store Operating Licence Application

Document IWS-O-LA-D1

# **INTERIM WASTE STORE OPERATING LICENCE EFFECTIVE CONTROL PLAN**

(rev 1)


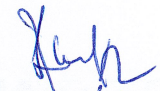
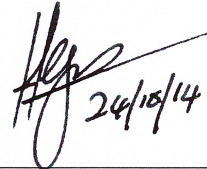
**Prepared By  
Australian Nuclear Science and Technology Organisation**

**October 2014**

**UNCLASSIFIED**

**UNCLASSIFIED**

Australian Nuclear Science & Technology Organisation  
Interim Waste Store Operating Effective Control Plan

| REVISION SHEET  |  | Document IWS-O-LA-D1   |  |  |
|-----------------|--|--|--|--|
|                 |  | Print name, date and sign or initial   |  |  |
| Revision Number | Description of Revision                    | Prepared   | Checked/<br>Reviewed   | Approved   |
| 0               | Original issue                             | Alamgir Kabir  | Lynn Tan   | Hefin Griffiths  |
| 1               | Revised Section 3 to reflect SAC comments. | Alamgir Kabir<br><br>23/10/14 | Lynn Tan<br><br>23/10/14 | Hefin Griffiths<br><br>24/10/14 |
|                 |  |  |  |  |

**UNCLASSIFIED**

Australian Nuclear Science & Technology Organisation  
Interim Waste Store Operating Effective Control Plan

**CONTENTS**

|   |                                   |   |
|---|-----------------------------------|---|
| 1 | PURPOSE AND SCOPE .....           | 4 |
| 2 | ACCOUNTABILITY OF APPLICANT.....  | 4 |
| 3 | ORGANISATIONAL ARRANGEMENTS ..... | 4 |
| 4 | MANAGEMENT SYSTEMS.....           | 8 |
| 5 | RESOURCES .....                   | 8 |
| 6 | REFERENCES .....                  | 9 |

## 1 PURPOSE AND SCOPE

The purpose of this *Effective Control Plan* is to outline the management arrangements that are in place within ANSTO's Waste Operations (WO) group for the purpose of operation of a radioactive waste store, called the Interim Waste Store (IWS), at the Lucas Heights Science and Technology Centre (LHSTC). The scope of this plan includes accountability, organisational and management issues in accordance with the ARPANS legislation [1, 2] and the ANSTO business arrangements. It specifically covers the issues referred to in the ARPANSA licensing guidelines relating to the review of plans and arrangements [3]. The effective control issues are addressed in the following headings in this plan.

This plan should be read in conjunction with the other plans and supporting documents comprising the operation licence application submission, specifically IWS-O-LA-D2 *Safety Management Plan*.

## 2 ACCOUNTABILITY OF APPLICANT

The CEO of ANSTO is the applicant to ARPANSA for the authorisation being sought to operate the facility. The responsibility for maintaining effective control and for ensuring compliance with the ARPANS legislation has been delegated to the Nominee who is the Head, Nuclear Services. The Nominee is assisted by the Manager, Waste Management Services, who is the Facility Officer.

The staff and monetary resources necessary to safely perform the tasks associated with the operation of the IWS to meet ARPANSA's requirements have been approved by ANSTO's senior management. These resources have been provided to Waste Operations which is managed by the Head, Nuclear Services, who reports to the General Manager, Nuclear Operations on waste management matters.

There are several processes that will ensure ANSTO's management remain informed and aware of safety during the operational phase of the facility. Management will be informed by review of this operating licence application and by the safety approval process for the facility which is described in IWS-O-LA-D2 *Safety Management Plan*. The routine activities undertaken at the facility during the operating phase will be performed in accordance to approved operating procedures and instructions. Non-routine activities will be covered by SWMES or undergo a SAC evaluation and approval process. Significant modification to the approved operations of the facility will undergo a safety and nuclear significance determination process and review by SAC and/or ARPANSA. The event response system captures excursion from normal operating conditions and is also a means by which management will be informed of all safety incidents and accidents.

ANSTO follows the ARPANSA legislation requirements for reporting including annual and quarterly reports and the requirement for immediate reporting in the event of a significant incident.

## 3 ORGANISATIONAL ARRANGEMENTS

The high level ANSTO organisational arrangements are shown in AG-5801 *ANSTO Organisation Chart* which is given here as Figure 1 [4]. Ultimate responsibility rests with the CEO who has delegated responsibilities to senior managers. The Head Nuclear Services is the delegated Nominee for the Facility. The Head, Nuclear Services is responsible for managing the ANSTO Waste Operations group. He is also responsible for nuclear and radiological safety standards and safety support, including radiation protection. The Head, Nuclear Services has a dual role as Chief Nuclear Officer (CNO), and in this capacity is also the Chair of the Safety Assurance Committee (SAC). The Nuclear Services organisation chart is given here as [5]. Other ANSTO sections important to the operation of the facility include Human Resources, Security and Finance.

Nuclear Services, a function under the Nuclear Operations Division, is central to the safety arrangements for ANSTO. The Radiation Protection Services (RPS) group has the specialist Radiation Protection Advisers (RPAs) who developed the construction and commissioning IWS-O-LA-D3 *Radiation Protection Plan* and have input into the other plans. This group also provides the Health Physics Surveyors (HPS) who conduct the radiological surveys and who will provide close support to the work teams. The dosimetry services are also within this group.

## UNCLASSIFIED

### Australian Nuclear Science & Technology Organisation Interim Waste Store Operating Effective Control Plan

Ongoing liaison with the regulators, including ARPANSA is maintained by the Regulatory Affairs Manager from the Nuclear Services group.

The Health and Safety Services (HSS) section in Human Resources and Work Health and Safety (HRWHS) provide specialist WHS advice and support to the project. Safety training is also managed by this section. The ANSTO Health Centre which is managed by the ANSTO Human Resources section provides workers compensation and rehabilitation services.

The CNO is also the Chair of the Safety Assurance Committee (SAC) which is the review and approval body for all safety significant changes to facilities, processes or projects. The CNO is directly responsible and accountable to the CEO in this capacity. The SAC approval process provides an independent review of the project plans and submission. The first step in this process is an assessment by other radiation, WHS and systems safety specialists who have not been involved in supporting the project planning and design. The submission and assessor reviews are then considered at a full meeting of the SAC. For any consideration of SAC applications which relate to the domain of Nuclear Services, the CNO will recuse himself from the Chair and membership of the SAC committee in accordance with the committees operating protocols.

These organisational arrangements are reviewed periodically.

The Licensing Officer, WO will liaise with the Regulatory Affairs Officer to monitor issues relating to the ARPANSA licence submission, and report to the Nominee, who is the Head Nuclear Services.

The Manager, WO is the IWS Facility Officer who is responsible for routine operational and safety matters and also coordinates the ongoing maintenance activities of building services with other groups at ANSTO, e.g. Engineering and Capital Programs, ANSTO Support Services, Security and Safeguards. The Manager, WO will report to the Nominee on overall operational and administrative matters of the facility during the operational phase of the IWS.

If an external contractor is required to be engaged for any specific maintenance activities for the IWS, this will be managed by the ANSTO Site Services Group in coordination with the IWS Facility Officer and ANSTO Safeguards and Security group. Contractors will report through their supervisor / manager to the nominated and accredited Contractor Supervisor appointed by Site Services staff as per ANSTO's WHS Management System.

Training and authorisation of staff is discussed in IWS-O-LA-D2 *Safety Management Plan*. All staff have defined roles set out in their position descriptions and their performance is monitored against objectives through the ANSTO Performance and Effectiveness Appraisal (APEA) process.

Special organisational arrangements operate in response to a serious incident and these are described in IWS-O-LA-D6 *Emergency Plan*.

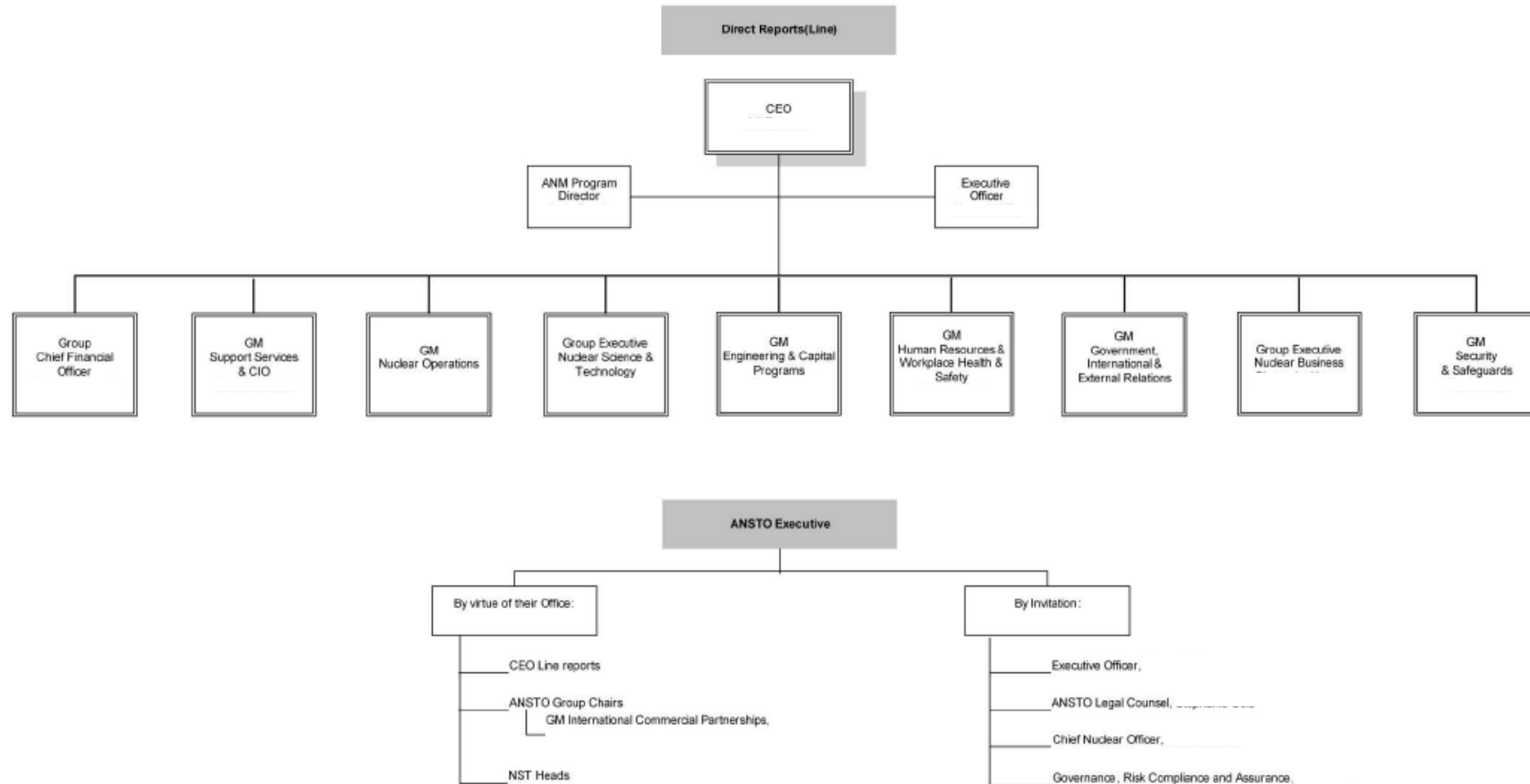
All documentation related to the facility is stored on ANSTO computer servers and in relevant ANSTO paper files. Project staff have appropriate access to this information.

Figure 1 - Organisational chart of ANSTO



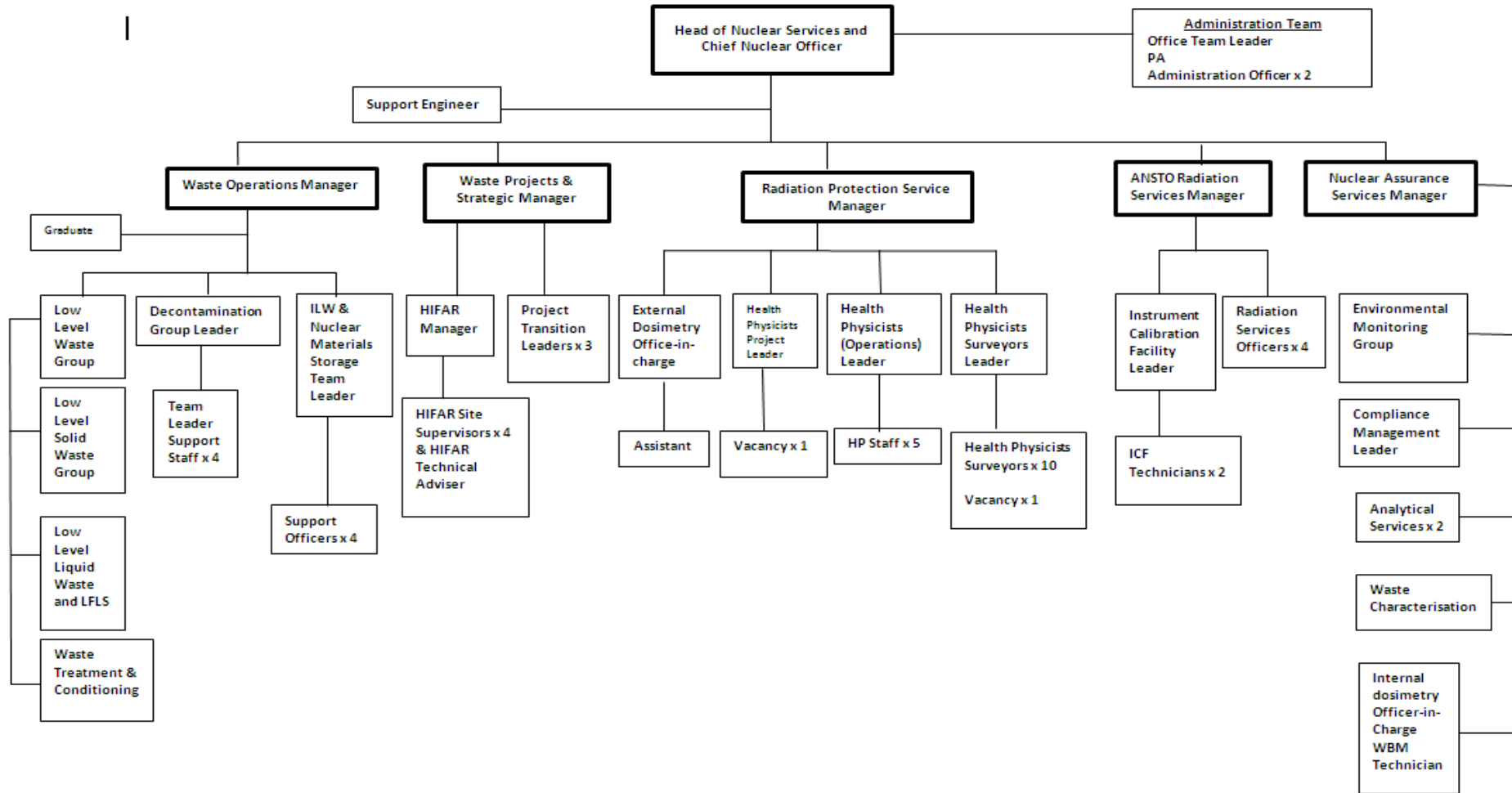
### ANSTO Organisation: CEO Direct Reports

AG-5801



Australian Nuclear Science & Technology Organisation  
Interim Waste Store Operating Effective Control Plan

Figure 2 - The three roles, responsibility and accountability of the Head of Nuclear Services and the Chief Nuclear Officer (note this is draft as at time of issue of this document. The names of some groups may be slightly amended over time, but the essence of the structure is current as at issue date)



## 4 MANAGEMENT SYSTEMS

ANSTO has policies in place relating to all aspects of its operations. The safety and environmental policy *Occupational Health, Safety and Environment Policy* [6] states ANSTO's commitment to occupational health, safety and the environment and sustainability. It outlines ANSTO's actions to meet those commitments. Other policies, including those for security, quality, human resources and business, provide a comprehensive framework. These policies are periodically reviewed.

There are several measures in place to ensure these policies are available and understood. They are available on the ANSTO intranet which is accessible to all staff. There are regular staff forums held by the CEO and within the divisions where safety is discussed and emphasised, reinforcing the intent of the policy. The safety training programs further expand and explain the intent of the policy.

Supporting the safety policies are the radiation safety standards. The standard AS 2310 *Radiation Safety* [7] commits to the *As Low As Reasonably Achievable (ALARA)* principle to optimise radiation protection and safety. It sets dose objectives in applying the principle including an ANSTO worker annual dose constraint of 15 millisieverts and an ANSTO public annual dose constraint of 0.3 millisieverts. These constraints are below the required levels recommended by ARPANSA given in ARPANSA RFS No. 1 *Recommendations and National Standard for Limiting Exposure to Ionizing Radiation* [8].

There are objectives for general safety performance and the key performance indicators are monitored. ANSTO also has an Environmental Management Strategy and associated environment monitoring program. WHS and environmental performance is monitored through the ANSTO Executive WHS&E committee.

Nuclear Services documents are developed in accordance with the ISO 9001 certification. Documents supporting the WHS and other policies are also developed within the certified ISO 9001 systems and the ISO 14001 system and this ensures there are procedures for document control and records management. The safety standards and requirements are contained in the WHS Management System which is within ANSTO's ISO 9001-accredited BMS. Further information on the WHS system and the management of safety records is given in the Safety Management Plan.

The effectiveness of these management systems is monitored and maintained by the audit programs required by the ISO certifications. These include both internal audits by ANSTO staff and external audits by the certifying organisation. Audit records are maintained and non-conformances and corrective actions are managed through these processes.

## 5 RESOURCES

The ANSTO processes for identifying the safety resource requirements are at several levels. For each potentially hazardous process or activity, a hazard identification and risk assessment following AS 2301 *Risk Management* [9] is performed which identifies the required equipment, including Personal Protective Equipment (PPE). Any works other than the routine tasks during the operating phase of the IWS, this will be done through the preparation of Safe Work Method and Environmental Statements (SWMES). Risks associated with routine operation of the facility and as such may be present during testing and commissioning are assessed in the *Safety Analysis Report of the Interim Waste Store* [10].

The *Radiation Protection Plan* identifies the necessary involvement by radiation specialists and it also recommends constraints for the allowable involvement of radiation workers. The risk assessments and plans are reviewed internally by the ANSTO Safety Assurance Committee (SAC).

The details relating to the employment of all safety related resources are developed during the detailed work planning. This includes the preparation of the SWMES which will identify any further resources needed. This detailed planning will ensure there are sufficient workers assigned to each task.

The ANSTO funding approval processes for facilities' on-going operation and maintenance works ensure there is sufficient funding available for the necessary equipment and people resources.



## UNCLASSIFIED

### Australian Nuclear Science & Technology Organisation Interim Waste Store Operating Effective Control Plan

On approval, the funds are made available to the facility management team and staff. All external purchases of items and services, including additional training, are through the ANSTO Procurement section and follow the requirements of the Government Procurement Guidelines.

## 6 REFERENCES

- 1 Australian Radiation Protection and Nuclear Safety (ARPANS) Act 1998.
- 2 Australian Radiation Protection and Nuclear Safety (ARPANS) Regulations 1999.
- 3 ARPANSA Regulatory Guide on Review of Plans and Arrangements, v3.
- 4 AG-5801 ANSTO Organisation Chart, June 2014.
- 5 Nuclear Services Organisation Chart, ANSTO Intranet, March 2014.
- 6 ANSTO Occupational Health, Safety and Environment Policy, March 2010.
- 7 ANSTO OHSE AS-2310 *Radiation Safety*, August 2009
- 8 ARPANSA RFS No. 1 Recommendations and National Standard for Limiting Exposure to Ionizing Radiation.
- 9 AS 2301 *Risk Management*, August 2009.
- 10 *Safety Analysis Report of the Interim Waste Store*, IWS-O-LA-SAR, April 2014.