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Little Forest Legacy Site Licence Application
Document LFBG-PC-LA-D6

LITTLE FOREST LEGACY SITE 'POSSESS OR CONTROL' LICENCE EMERGENCY PLAN

(rev 0)

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

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Little Forest Legacy Site Emergency Plan

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1 PURPOSE AND SCOPE

The purpose of this *Emergency Plan* is to outline the emergency arrangements that are in place within ANSTO for the purpose of 'possess or control' authorisation of the Little Forest Legacy Site (LFLS) facility located within the buffer zone of the Lucas Heights Science and Technology Centre (LHSTC). The scope of this plan are the emergency issues in accordance with the ARPANS legislation [1, 2] and the ANSTO safety arrangements. It specifically covers the issues referred to in the ARPANSA licensing guidelines relating to the review of plans and arrangements [3]. The emergency issues are addressed in the following headings in this plan.

ANSTO is seeking an approval for a 'possess or control' licence application of the LFLS. The licence application was originally submitted to ARPANSA in 1999 and ANSTO is updating all the documentation and providing additional information and clarifications to the original licence application. This plan forms the part of that supporting information of the 'possess or control' licence application.

This plan should be read in conjunction with the other plans and supporting documents comprising the siting licence, specifically LFBG-PC-LA-D2 *Safety Management Plan* and LFBG-PC-LA-D5 *Security Plan*.

2 EMERGENCY PLANS

The LFLS facility is an existing site which is located within the buffer zone of the LHSTC in NSW. During the 'possess or control' period of the facility, ANSTO Security and Safeguards staff are responsible for ensuring the emergency arrangements are in place and all those personnel involved are trained in their roles. An assessment of the risks during this phase has been prepared [4] as part of the licence application. The assessment covers all the activities (i.e. inspections, monitoring, maintenance works etc.) to be undertaken during the 'possess or control' phase of the facility and also other hazardous scenarios that are developed using the Feature, Events and Processes (FEP) technique.

Bushfire threats to ANSTO LHSTC, including the LFLS, would be assessed by the Emergency Operations Centre team in consultation with the NSW Rural Fire Service (RFS)/ Fire and Rescue NSW (FRNSW). Once the Emergency Operations Manager (in consultation with RFS/FRNSW) declares the emergency phase over, a recovery operation lead by the Crisis Management Team (CMT), who have executive oversight, would be initiated. Supporting the CMT are Operational Support Teams (subject matter experts) who would be pooled together to deal with the specific incident. They would consider hazards and technical solutions to recover and remediate the site. However, a bushfire attack impacting the LFLS facility would result in superficial damage. The loss of surrounding ground cover vegetation (grass/ shrubs) would likely lead to an increased exposure to winds and surface water run-off. This is discussed in the ANSTO/T/TN/2013-10 *Safety Assessment* [4], and a recommendation is made to mitigate the consequence in the aftermath of a bushfire.

3 EMERGENCY PROCEDURES

The purpose of this plan is to ensure an appropriate, rapid response to all possible emergencies in order to minimise the risk to staff, the public and the environment. The procedure for the initial response to an incident will be practised in the emergency drills before any activities to be performed at the LFLS facility. This is consistent with the emergency response arrangements in place throughout LHSTC and the Waste Operations (WO) group including the LFLS Facility Officer and Head, Nuclear Services will review this to ensure it is appropriate for the 'possess or control' period of the facility.

If an incident or accident occurs which necessitates the need for an escalated emergency response, ANSTO LHSTC emergency response arrangements will apply. Central to these arrangements is the ANSTO Site Operations Centre (ASOC) which is manned 24/7 by the Australian Federal Police (AFP) and is the focal point for communications in an emergency. As described in the LFBG-PC-LA-D5 *Security Plan* [5] and ANSTO/T/TN/2013-10 *Safety Assessment* [4], in addition to the security alarms, all safety alarms are monitored and all calls to the ANSTO emergency number are directed to this centre.

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This next level of emergency response is managed by an on-call role known as the Incident Controller (IC). These arrangements are described in AG 2973 Duty Safety Coordinator [6]. This role is staffed 24/7 by a suitably qualified and experienced ANSTO staff member in the emergency arrangements and has the necessary authority to take control of the emergency and command further ANSTO resources if required. The IC will ensure that the local response is appropriate and, where necessary, that the external emergency response services are contacted. The response to an incident may be escalated to the IC in two ways. The officers in the ASOC have pre-programmed alarm responses (PPARs) for which specific alarm responses necessitate the need to inform the IC. The IC will also be contacted by the ASOC when there is a call to the centre requesting further emergency assistance.

ANSTO Radiation Protection Services section maintains 24/7 on-call health physics support for radiation incidents. An experienced HPS is contactable by mobile phone and can respond in a vehicle containing the necessary radiation detection and decontamination equipment. However, for LFLS, the radioactive wastes are placed underground and the facility is unmanned; therefore, likelihood of any significant above-ground radiological incident affecting staff or public is very low.

If necessary, the IC can seek operational support and advice from ANSTO's Emergency Operations Manager and the senior management Consequence Assessment Team (CAT) through the arrangements described in AG 2466 ANSTO LHSTC Emergency Management Plan, December 2013 [7].

4 EMERGENCY PREPAREDNESS

The emergency arrangements described in the previous sections include back-up for all emergency roles. The ANSTO ASOC, which is the emergency communications point, is manned 24/7 by AFP officers and there are always back-up officers at the site. The IC and the on-call HPS roles are rostered 24/7 and any absences are covered by alternates.

All staff with a role in emergency response are trained in emergency response procedures, and are familiar with the existing emergency arrangements and escalation processes. As described, emergency exercise drills will be conducted involving all stakeholders, including the WO staff, as required. The higher-level response arrangements involving all of ANSTO's emergency response resources are exercised periodically and involve external emergency services. There are ongoing reviews of the emergency arrangements, including updating of the contact lists and safety alarm responses.

During the 'possess and control' period, there will be no major activities at the LFLS and, therefore no significant hazards in the facility that could credibly cause a risk to people outside the facility. There will be no nuclear or radiation hazards in the vicinity of the facility because the majority of the activities to be undertaken during this period are of routine inspection and monitoring in nature. Prior to any major maintenance task at the LFLS facility, a thorough planning and approval process will be followed in compliance with the ANSTO Work, Health and Safety (WHS) Management System.

During the 'possess and control' period, the Area Supervisor and Facility Officer from the ANSTO WO will have responsibility for the facility and will implement and maintain the approved emergency procedures appropriate to the hazards associated with facility. During the 'possess and control' phase, ANSTO Emergency Operations (Security and Safeguards) will develop and implement the detailed emergency planning and preparedness for the LFLS facility in compliance with the relevant Radiation Protection Series [8].

5 REFERENCES

1. Australian Radiation Protection and Nuclear Safety (ARPANS) Act 1998.
2. Australian Radiation Protection and Nuclear Safety (ARPANS) Regulations 1999.

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3. ARPANSA OS-LA-SUP-240B Regulatory Guide: Plans and Arrangements for Managing Safety v4, January 2013.
4. ANSTO, *Safety Assessment of the LFLS*, ANSTO/T/TN/2013-10 rev 1, August 2014.
5. LFLS Security Plan, *LFBG-PC-LA-D5*, August 2014.
6. ANSTO WHS Guide: AG2973 Duty Safety Coordinator.
7. AG 2466 ANSTO LHSTC Emergency Management Plan, December 2013.
8. ARPANSA, Radiation Protection Series No. 7, Recommendations for Intervention in Emergency Situations Involving Radiation Exposure, 2004.