



**Replacement Research Reactor Project**

**REACTOR FACILITY EMERGENCY PLAN**

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

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## 1 PART ONE – INTRODUCTION

### 1.1 FOREWORD

This Plan identifies responsibilities of ANSTO staff in responding to accidents and incidents at the Reactor Facility. This Plan is a sub plan of the ANSTO Response Plan for Accidents and Incidents at ANSTO/LHSTC (ANSTO Response Plan).

The objective of the Reactor Facility Emergency Plan is to describe the arrangements to respond to any incident or emergency under all operating conditions within the Reactor Facility. This is to ensure that any hazard can be dealt with in an effective manner, thereby minimising the consequences.

This Reactor Facility Emergency Plan is supported by Safety Directives and Reactor Facility procedures and instructions which describe how the emergency arrangements are implemented.

### 1.2 AIM

The Reactor Facility Emergency Plan was developed to ensure there are arrangements in place to manage hazards in the event of an accident or incident in the Reactor Facility.

### 1.3 SCOPE

The Reactor Facility Emergency Plan:

- identifies responsibilities and provides arrangements to coordinate the response to incidents at the Reactor Facility;
- provides an interface for the emergency response responsibilities and arrangements outlined in the ANSTO Response Plan for Accidents and Incidents at ANSTO/LHSTC (ANSTO Response Plan); and
- is supported by a series of Response Actions designed to respond to foreseeable accidents and incidents related to the operation of the Reactor Facility.

### 1.4 ANSTO RESPONSE PLAN

The Reactor Facility Emergency Plan interfaces with the ANSTO Response Plan for Accidents and Incidents at ANSTO/LHSTC (ANSTO Response Plan)

The ANSTO Response Plan was developed to ensure that there are arrangements in place to manage all hazards, to minimise injuries to persons, to minimise loss of life and/or property, to prevent or minimise the spread of any on-site incident to off-site and to restore LHSTC to normal operations in a timely and orderly manner.

The ANSTO Response Plan:

- identifies responsibilities and provides arrangements to coordinate the response by ANSTO and Emergency Services Organisations to on-site incidents at the LHSTC;
- provides arrangements for ANSTO to provide support in the form of advice, technical and practical assistance, and availability of facilities and systems to Emergency Services Organisations for incidents with off-site consequences; and
- provides arrangements to keep the public, the Sutherland Shire Council, the media, the Australian Radiation Protection and Nuclear Safety Agency and other organisations fully informed of significant incidents that require a coordinated response by NSW Emergency Services Organisations.

## 1.5 AREA AND COMMUNITY COVERED BY THE PLAN AND VULNERABLE COMMUNITY

This Plan covers the area constituted by the Reactor Facility.

For this Plan, the “vulnerable community” (the community that could be affected by an emergency or incident), is defined as employees of all organisations at the LHSTC, together with contractors and visitors.

There are no postulated accident scenarios for the Reactor Facility that have off-site consequences. However, in the unlikely event that an accident in the Reactor Facility occurs with potential off-site consequences, this sub-plan would invoke the ANSTO Response Plan.

## 1.6 DEFINITIONS

Accident	Any unintended event, including operating errors, equipment failures or other mishaps, the consequences or potential consequences of which are not negligible from the point of view of protection or safety.
Building 80 Evacuation Alarm	Alarm to evacuate the Reactor Facility building using the indicated routes.
Emergency	A non-routine situation or event that necessitates prompt action, primarily to mitigate a hazard or adverse consequences for human health and safety, quality of life, property or the environment. This includes nuclear and radiological emergencies and conventional emergencies such as fires, release of hazardous chemicals, storms or earthquakes. It includes situations for which prompt action is warranted to mitigate the effects of a perceived hazard.
Emergency services	The local off-site response organizations that are generally available and that perform emergency response functions. These may include police, fire fighters and rescue brigades, ambulance services and control teams for hazardous materials.
Emergency procedures	Procedures documenting the implementation of actions to be carried out during an emergency situation.
Event	An unintended occurrence that has potential consequences which are not negligible from the point of view of protection or safety. An event could develop into an incident or accident.
Incident	An event involving significant failure in safety provisions, but with sufficient defence in depth remaining to cope with additional failures, and/or resulting in a dose to a worker exceeding a statutory dose limit and/or leading to the presence of activity in on-site areas not expected by design and which require corrective action.
Local Liaison Working Party (LLWP)	Working Party comprising members from ANSTO, NSW Emergency Services Organisations and other organisations. It is responsible for providing guidance on emergency planning.
Lucas Heights Science and Technology Centre (LHSTC)	An area of approximately 70 hectares, including a number of facilities immediately outside the perimeter security fence, such as the Lucas Heights Motel, canteen, Woods Centre, and other buildings in the ANSTO Technology Park.
Off-site	Geographical area beyond the LHSTC site boundary.
Protection Actions	Measures taken in anticipation of or after an emergency to protect the health and safety of individuals and to prevent property damage.
Reactor Facility	The multipurpose research reactor that will replace HIFAR, and its associated buildings, physical plant, structures, components and systems including software and, where relevant, any management systems necessary to achieve the design, construction and operation of the facility.

Recovery	Process of re-establishing the normal operation level of an affected area after an emergency.
Reactor Facility Area	Area in and around the Reactor Facility under the control of the reactor Shift Manager.
Standing Operating Procedures (SOP)	Procedures that support the Response Plan for Accidents and Incidents at ANSTO/LHSTC.

## 1.7 ACRONYMS

AEMI	Air Effluent Monitoring Intelligent
AEMO	ANSTO Emergency Management Officer
APS	Australian Federal Police - Protective Service
ASCC	Alternative Site Control Centre
CCTV	Closed Circuit Television
DSC	Duty Safety Coordinator
ECC	Emergency Control Centre
EP	Emergency Plan
FCMS	Facilities Control and Monitoring System
LHSTC	Lucas Heights Science and Technology Centre
MCR	Main Control Room
NGH	Neutron Guide Hall
PA	Public Announcement
PAM	Post Accident Monitoring
PPE	Personal Protective Equipment
RA	Response Action
RCMS	Reactor Control Monitoring System
RPS	Reactor Protection System
SAM	Site Alarm Monitor
SCC	Site Control Centre
SOP	Standing Operating Procedures

**2 PART TWO - COMMUNICATION WITH THE PUBLIC AND EXTERNAL AUTHORITIES**

The arrangements for communication with the public and appropriate external authorities are outlined in the ANSTO Response Plan.



### **3 PART THREE – RESPONSIBILITIES**

#### **3.1 RESPONSIBILITIES OF ANSTO/LHSTC PERSONNEL**

Many ANSTO and Australian Federal Police - Protective Service (APS) personnel have specific responsibilities in terms of emergency response for the Reactor Facility. The responsibilities directly related to this plan are described below and the interaction is shown in Figure 1.

##### **3.1.1 Reactor Manager**

The Reactor Manager is directly responsible for the safe operation of the Reactor Facility. The Reactor Manager has control over those activities necessary for safe operation and maintenance of the reactor. These responsibilities consist of reactor operations, maintenance, radiation protection and utilisation.

##### **3.1.2 ANSTO Emergency Management Officer (AEMO)**

This is a senior executive officer appointed by the Executive Director to maintain executive control of ANSTO staff during an accident or incident. The AEMO acts as the ANSTO Liaison Officer and works with the Police Site Controller, advising him/her of any situation that could escalate.

The AEMO arranges for LHSTC resources to be available to provide mutual aid, assistance and executive advice outside the area covered by the Plan, at the request of the Police Site Controller.

This is an on-call rostered position to ensure an AEMO is always available.

##### **3.1.3 ANSTO Executive Director**

This is the person appointed by the ANSTO Board to control and direct all the activities of ANSTO and to ensure that adequate incident response measures are in place at ANSTO.

##### **3.1.4 Australian Federal Police - Protective Service (APS)**

By arrangement, the APS provides guarding services at the LHSTC and provides an officer, the Site Alarm Monitor, to staff the Site Control Centre, on a 24-hour basis. During emergencies, the APS controls access to affected areas of site.

##### **3.1.5 Duty Safety Coordinators (DSC)**

These are nominated senior officers from ANSTO Safety & Radiation Science who take early control of any accident or incident. This is an on-call rostered position to ensure a DSC is always available.

##### **3.1.6 Fire Officer (ANSTO)**

The Fire Officer is responsible for ensuring ANSTO meets its legislative requirements as regards to fire safety and readiness.

##### **3.1.7 Health Physics Surveyors**

Health Physics Surveyors provide Health Physics monitoring and advice as required.

### **3.1.8 Radiation Protection Adviser**

A professional officer from ANSTO who provides advice on radiological protection for all personnel and plant during an accident or incident.

### **3.1.9 Reactor Facility Recovery team**

This is composed of Reactor Facility staff members. The team is responsible for the formulation of the post accident recovery from serious accidents involving the Reactor Facility.

### **3.1.10 Reactor Operator**

A Reactor Operator is an authorised individual who possesses the skills, knowledge, and abilities to ensure the safe operation of the Reactor Facility. During normal operation, an authorised Reactor Operator is in the Main Control Room at all times.

The duty Reactor Operator is responsible for providing support to the duty Shift Manager, including during any Reactor Facility accident or incident. The duty Reactor Operator will notify the duty Shift Manager immediately of any potential event when identified.

### **3.1.11 Shift Manager**

The Shift Manager is the authorised reactor operator in charge of the duty shift, and is responsible for activating the Reactor Facility Emergency Plan and initiating the first response to any Reactor Facility incident or accident.

The Shift Manager has the responsibility for identifying a Reactor Facility incident or accident, undertaking an initial response and contacting the SAM in the SCC if required. The Shift Manager is available in the Reactor Facility area at all times.

The Shift Manager is responsible for advising on when hazards from an accident or incident within the Reactor Facility are under control.

### **3.1.12 Site Alarm Monitors (SAM)**

These are Australian Federal Police - Protective Service officers who are responsible, on a 24-hour continuous-shift basis, for monitoring and responding to all Security, Health and Safety alarms raised in the Site Control Centre or the Alternative Site Control Centre.

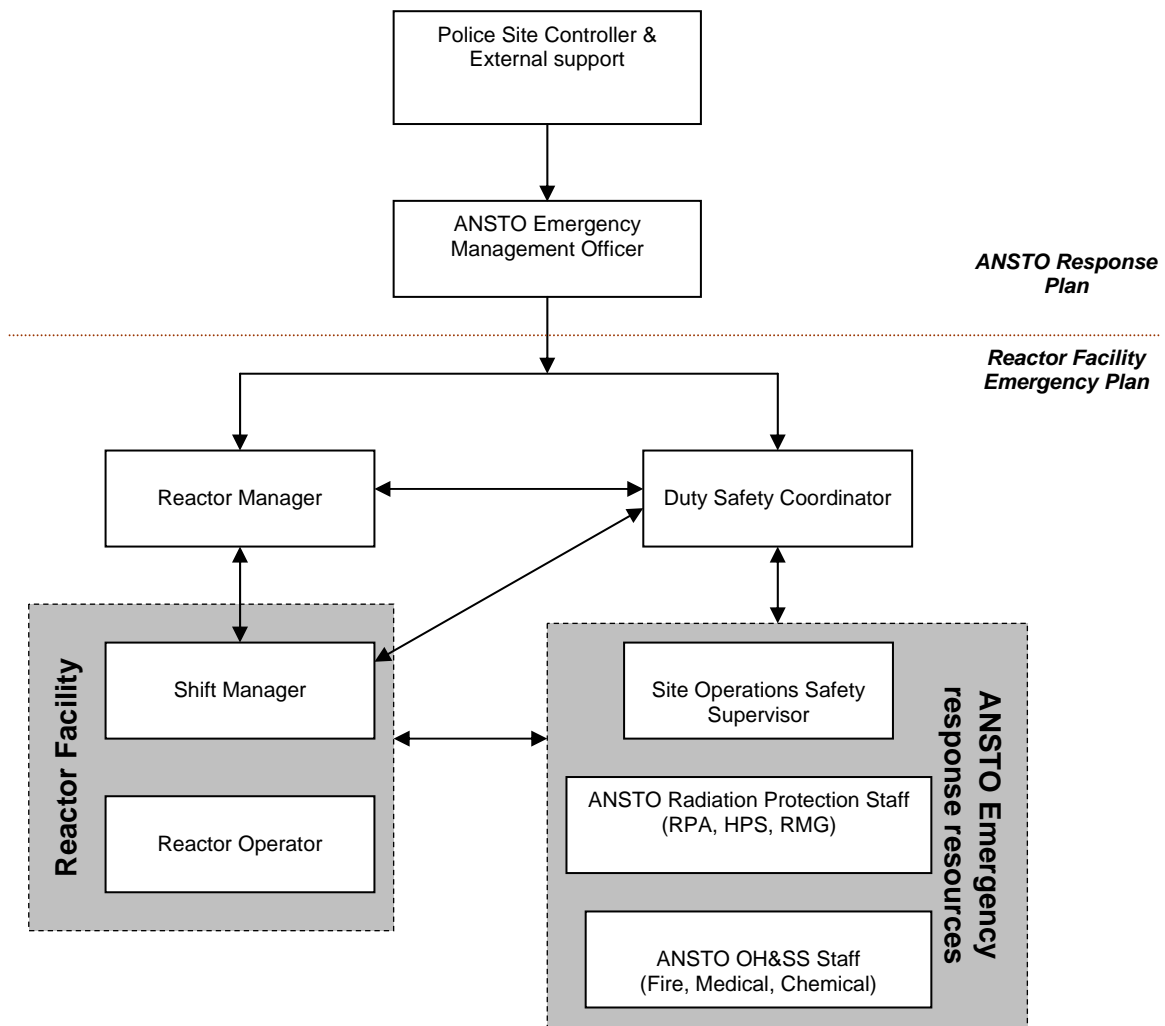
### **3.1.13 Site Operations Safety Supervisors (SOSS)**

These are senior technical officers from ANSTO Safety & Radiation Science responsible for the maintenance and safe operation of site utility services and operating plant. When advised of the existence of any alarm, or a possible accident or incident, the Site Operations Safety Supervisor proceeds to the scene and initiates appropriate response action. In the case of a Reactor Facility accident or incident, they provide support to the Shift Manager and maintain essential site services.

## **3.2 RESPONSIBILITIES – EXTERNAL EMERGENCY SERVICES ORGANISATIONS AND OTHER ORGANISATIONS**

The responsibilities of external Emergency Services Organisations and other organisations are covered in the ANSTO Response Plan.

Figure 1 Interaction of Reactor Facility and Site Emergency Personnel



## 4 PART FOUR – PREPARATION

Facilities and systems in place to assist in dealing with an accident or incident.

### 4.1 MAIN CONTROL ROOM (MCR)

The Main Control Room (MCR) is located at Level +13.00 of the Reactor Facility, next to the Reactor Hall, outside of the Containment. The MCR allows the operators to carry out the operation tasks of the plant such as;

- equipment control,
- machinery control,
- parameter control of all processes in all reactor states,
- paging communication,
- Closed Circuit TV (CCTV) monitoring,
- supervision of the operation of the facilities,
- the performance of protective actions to mitigate accident consequences and provide the resources for post accident monitoring analysis.

The MCR is host for the Human Machine Interface (HMI) provided by the Reactor Protection System (RPS), Post Accident Monitoring System (PAM), Reactor Control and Monitoring System (RCMS), Facilities Control and Monitoring System (FCMS), Communication System and CCTV.

### 4.2 EMERGENCY CONTROL CENTRE (ECC)

The Emergency Control Centre (ECC) is located at Level +4.00 of the Reactor Facility. The ECC is an alternative control room for maintaining the facility in a safe state in the event that the MCR is uninhabitable.

The ECC has access to all the basic parameters of the plant as well as the status of all the Safety Systems. From the ECC, the operator has access to all displays and the necessary commands to keep the reactor in a safe state.

The main components of the ECC are:

- Emergency Console; and
- RPS/PAM Wall Panels.

### 4.3 POST ACCIDENT MONITORING SYSTEM (PAM)

The Post Accident Monitoring (PAM) system provides the necessary information for reactor operators to monitor and take actions after an accident condition. In addition, it provides information to indicate whether plant safety functions are operational and is an important tool for implementing manual recovery actions.

The PAM system is an Engineered Safety Feature of the Reactor Facility. Some PAM signals are used by the RCMS to display the PAM parameters.

The PAM system:

- Provides information to operators to indicate whether plant safety functions are being accomplished;
- Indicates the successful operation of individual safety systems;

- Alerts operators to take safety actions for initiating a system or function that is not automatic;
- Indicates to operators when barriers to fission product release have the potential for being breached or have been breached; and
- Determines the magnitude of radioactive materials released.

#### **4.4 SITE CONTROL CENTRE (SCC)**

The Site Control Centre is a fully equipped communications centre continuously staffed by a Site Alarm Monitor. A duplicate facility, the Alternative Site Control Centre (ASCC), has been established at another location on site. Either can act as the central communications point in the event of an accident or incident.

#### **4.5 EMERGENCY OPERATIONS CENTRE (EOC)**

A fully equipped Emergency Operations Centre is located in Building 8. In the event of an LHSTC emergency, the EOC provides a communications and operations centre for the Police Site Controller, Emergency Services Organisations and ANSTO liaison officers. It is also available for use for any emergency in the district in the event of the Sutherland Shire Emergency Operations Centre not being operational.

#### **4.6 ALARMS**

The Reactor Facilities MCR and ECC monitor alarms received through the RPS, RCMS, FCMS and PAM. The Reactor Operator responds to alarms received in accordance with the nature of the alarm.

The Site Alarm Monitor also monitors certain alarms from the Reactor Facility (e.g. Fire).

Additionally the MCR, ECC and/or Site Alarm Monitor respond to alarms raised by telephone.

#### **4.7 COMMUNICATIONS SYSTEMS**

The ANSTO Response Plan describes the communication systems available for the LHSTC site.

The Reactor Facility incorporates a number of communication systems that can be used during incidents and accidents. The following are maintained in a state of readiness and tested regularly.

##### **4.7.1 Reactor Facility Public Address System**

The Reactor Facility has an emergency warning and intercommunication system with an integral Public Address (PA) system. These systems are available to provide communications for Reactor Facility personnel, including the delivery of instructions during emergencies. The PA system would be operable during post-accident recovery.

##### **4.7.2 Reactor Facility Audible Alarms**

Audible alarms are located in such a way that failure of a single speaker will not affect the overall efficiency of the system, it still being possible to hear the warning message in every room in the Reactor Facility's buildings and adjacent areas.

Alarms announcing different conditions have a clearly recognisable and distinct sound. They are set off for long enough to warn the staff, but without interfering with subsequent response actions.

### 4.7.3 Telephone and Intercom Systems

General telephone communications and data communication systems are provided for the reactor building (including the ECC), the neutron guide hall (NGH), visitor entrance building and the auxiliary building. These systems are extensions of the relevant LHSTC networks.

A dedicated Intercom system is provided for the reactor building, visitor entrance building, auxiliary building and ECC. The Intercom system is also connected to the SCC and ASCC.

Mobile phones are also used extensively.

### 4.7.4 Closed Circuit Television (CCTV)

The CCTV video surveillance system, which has monitors in the MCR, allows visual monitoring even in areas inaccessible to personnel; eg, the heavy water room.

## 4.8 MOBILE EMERGENCY RESPONSE VEHICLES

The ANSTO Emergency Response Vehicles provide transport for response to any accidents and incidents. Both vehicles carry a comprehensive range of emergency and medical equipment with personnel trained in their use. They also have comprehensive communications facilities. An additional fire response vehicle is fully equipped to NSW Rural Fire Service standards.

## 4.9 EMERGENCY EQUIPMENT

Emergency equipment is available in designated areas of the Reactor Facility. The equipment is checked periodically to review its operational status and, as necessary, to replace it with new equipment.

A set of emergency lights is in place to allow observation of personnel movements and area supervision through a Closed Circuit Television system. The emergency evacuation routes are clearly marked with signs.

Emergency decontamination showers and devices such as eyewash stations are located in key points of the facility.

Additional emergency response resources are available within ANSTO and are outlined in the ANSTO Response Plan. The DSC can activate or initiate their use.

The ANSTO Emergency Response Vehicles that allow a rapid response to an incident/emergency on site are also available.

## 4.10 ANSTO MEDICAL FACILITIES

The ANSTO Medical Centre is usually staffed during normal working hours by an Occupational Health Nurse and equipped with first aid and personnel decontamination facilities. The Site Medical Officer attends on a part-time basis. The Site Operations Safety Supervisors are trained to advanced first aid standards and provide additional response capability.

## 4.11 ANSTO SITE EVACUATION CENTRES AND MUSTER POINTS

There are two principal evacuation centres: the ANSTO Transport Building and the Cafeteria. Additionally, there are local internal and external muster points in and around the Reactor Facility to facilitate evacuation in the event of an emergency.

## 5 PART FIVE – RESPONSE

### 5.1 RESPONSE BY ANSTO PERSONNEL

#### 5.1.1 Introduction

This section outlines the response by ANSTO personnel to accidents and incidents that relate to the Reactor Facility. The potential incident or accident scenarios arising from internal or external hazards for the Reactor Facility are addressed by a series of Reactor Facility procedures. Each scenario is either identified by easily recognisable parameters, which are monitored through the RCMS alarms, or notified through the facility communication systems.

When an event occurs, the Main Control Room and the Shift Manager shall be informed immediately. The Shift Manager is the person in charge and undertakes the assessment of the event. The Shift Manager is responsible for activating the Reactor Facility Emergency Plan and initiating the appropriate Response Actions. He/she co-ordinates the Response Actions.

If the event escalates the ANSTO Response Plan may be activated.

#### 5.1.2 Sequence of response

When the Reactor Operator in the Main Control Room monitors an alarm or is advised of a potential event with potential safety implications, they immediately notify the Shift Manager.

The Shift Manager is the person in charge within the Reactor Facility and is responsible for activating the Reactor Facility Emergency Plan.

The Shift Manager will identify the nature of any accident or incident, and will determine what action is necessary and what resources will be required. The Shift Manager may initiate a series of Response Actions, the level of which is dictated by the nature, extent, severity and escalation of the incident.

The Shift Manager may require assistance from additional Reactor Facility staff, such as authorised reactor operators, maintenance or radiation protection staff. These staff may be rostered on-call and can be called in to support the response actions as required.

If the response requires assistance from outside the Reactor Facility, the Site Alarm Monitor will be contacted in the Site Control Centre and the appropriate response or assistance requested. Response to some alarms requires the Site Alarm Monitor to use the PA to evacuate specific local areas of site following prepared instructions.

The Shift Manager may also obtain assistance from ANSTO personnel including the SOSS and the DSC.

The Duty Safety Coordinator will coordinate the ANSTO emergency response support to the Reactor Facility.

The Duty Safety Coordinator will assess the potential for escalation of the event and, if required, will contact the rostered on-call ANSTO Emergency Management Officer to take executive control. This may result in the activation of the ANSTO Response Plan.

If the ANSTO Response Plan is activated, the Reactor Facility staff will work together with the SOSS, DSC and AEMO as required. Detail on the personnel and organisation required is provided in the ANSTO Response Plan.

Should the accident or incident involve or have the potential for major damage or off-site consequences, the ANSTO Emergency Management Officer will inform the Executive Director ANSTO as early as possible.

For any chemical or radiation incident, ANSTO Safety & Radiation Science staff provide technical advice, undertake monitoring and advise on clean up and decontamination procedures.

### 5.1.3 The stages of activation of this Plan

PHASE	ACTION
<b>ALERT</b>	a) Main Control Room receives advice on a situation which could escalate from: <ul style="list-style-type: none"> <li>i) RPS, RCMS, FCMS, or PAM;</li> <li>ii) Reactor Facility Staff (including visitors and utilisers) or</li> <li>iii) Site Control Centre.</li> </ul> b) Main Control Room: <ul style="list-style-type: none"> <li>i) informs Shift Manager</li> </ul>
<b>STAND BY</b>	a) Shift Manager <ul style="list-style-type: none"> <li>i) activates Reactor Facility Emergency Plan</li> <li>ii) identifies incident/accident scenario</li> <li>iii) activates Response Action for scenario</li> </ul>
<b>CALL OUT</b>	a) Shift Manager <ul style="list-style-type: none"> <li>i) Advises Site Alarm Monitor that assistance is required.</li> <li>ii) Contacts necessary reactor support staff (ROs, Maintenance)</li> <li>iii) Contacts Reactor Manager and advises of accident/incident</li> </ul> b) Site Alarm Monitor: <ul style="list-style-type: none"> <li>i) contacts SOSS</li> <li>ii) contacts DSC</li> </ul> c) DSC <ul style="list-style-type: none"> <li>i) Coordinates ANSTO emergency response support to the Reactor Facility</li> <li>ii) assesses accident/incident for potential consequences</li> <li>iii) contacts the AEMO if potential need to escalate to the ANSTO Response Plan</li> </ul>
<b>DEBRIEF and STAND DOWN</b>	a) Shift Manager advises when the hazard is controlled and assistance is no longer required. <ul style="list-style-type: none"> <li>b) Reactor Manager arranges time and location for debriefing.</li> <li>c) Reactor Facility and ANSTO support staff are debriefed and stood down on completion of final tasks.</li> <li>d) Final reports completed and distributed in accordance with Standing Operating Procedures.</li> <li>e) Improvements to systems and plans identified and implemented</li> </ul>

### 5.1.4 Monitoring of Emissions in the event of an Accident or Incident

The Air Effluent Monitors continuously monitor air from the Reactor Facility Containment for the emission of radioactive particulates, iodine-131 and noble gases in real-time. The data obtained from these monitors are displayed via the RCMS. Selected emission data is presented via the PAM and will be available under accident conditions.

In addition monitoring for the emission of radioactive particulates, iodine-131, noble gases and tritium from the Reactor Facility stack is performed and the data obtained is displayed via the RCMS.



The ANSTO Response Plan addresses the off-site monitoring of emissions or releases resulting from the accident or incident with potential off-site consequences.

## **5.2 RESPONSE BY EMERGENCY SERVICES ORGANISATIONS**

If Emergency Services Organisations response is required, the ANSTO Response Plan will be activated by the AEMO. Communications with the Emergency Services Organisations are described in the ANSTO response Plan. Emergency Services Organisations' response is according to Agency Standing Operating Procedures.

## **6 PART SIX – RECOVERY**

### **6.1 PLANNING FOR RECOVERY OPERATIONS**

The ANSTO Response Plan includes provisions for the planning of recovery operations. The ANSTO Emergency Management Officer will coordinate the planning, which includes the formation of the ANSTO Recovery Coordinating Committee. These provisions are described in the ANSTO Response Plan.

In addition to the provisions in the ANSTO Response Plan, every Emergency Response Action details the corresponding actions and responsibilities for re-entry to and recovery of the affected areas.

#### **6.1.1 Reactor Facility Recovery Team**

A Reactor Facility Recovery Team may be formed for scenarios that require post-accident recovery from serious accidents involving the Reactor Facility.

The team will consist of staff from the Reactor Facility and will be responsible for the formulation of plans for the recovery of the Reactor Facility. The plans prepared by the Recovery Team will be submitted to the ANSTO Recovery Coordinating Committee as required.

The recovery actions will depend on the emergency scenario. These actions will be decided by the AEMO in consultation with the DSC and the Reactor Facility Recovery Team, which will analyse the post-incident situation, formulate an objective and initiate the required measures.

A nominee appointed by the Reactor Facility Recovery Team will properly document recovery actions. This documentation will include the post-incident debriefing and the provisions to prevent the repetition of the incident or accident. Reports will be forwarded to ANSTO senior management and ARPANSA.

### **6.2 DEBRIEFING AND REPORTING**

Following each incident or accident, the lessons learned will be reviewed and plans and procedures amended as necessary.

The debriefing and reporting of accidents or incidents involving the Reactor Facility will be performed in accordance with the ANSTO Response Plan.

### **6.3 TEST AND REVIEW PROCESS**

The responsibility for exercising, testing and reviewing this Plan rests with the Reactor Manager, who shall determine the frequency and format for testing and review. Major emergency exercises are held regularly and at least once every two years. Drills of specific aspects of the plan are held more frequently..

This Plan will be reviewed after each major exercise of the plan, or as roles, responsibilities and capabilities of organisations change.

## 7 PART 7 – APPENDICES

### 7.1 APPENDIX 1 - LEGISLATION AND RELATED REFERENCE DOCUMENTS

The following legislation, plans and related documents were considered in the development of this Plan and/or in the supporting Standing Operating Procedures:

Australian Nuclear Science and Technology Organisation Act 1987 (ANSTO Act)

ANSTO Response Plan for Accidents and Incidents at ANSTO/LHSTC (ANSTO Response Plan) (2002)

NSW State Emergency and Rescue Management Act (1989) as amended

IAEA, Safety Series No. 35-P5, Operating Procedures for Research Reactors: Safety Practice.

IAEA Safety Series No 109, Intervention Criteria in a Nuclear or Radiation Emergency (1994)

IAEA Safety Standard Series No. GS-R-2, Preparedness and response for a Nuclear or Radiological Emergency (2002)

National Health & Medical Research Council Intervention in emergency situations involving radiation exposure (1990)

IAEA EPR-ENATOM (2000). Emergency Notification and Assistance Technical Operations Manual

Updating IAEA-TECDOC-953. Method for the development of emergency response preparedness for nuclear or radiological accidents (October 2003)

IAEA TECDOC 1092, Generic Procedures for monitoring in a nuclear or radiological emergency, July 1999.

ANSTO Reactor Facility Safety Analysis Report (SAR) Chapters 16 and 20 (August 2004)