

[UNCLASSIFIED]



Independent Review Implementation Plan

ANSTO Response to the Independent Review of
the ANSTO Health Approach to Occupational
Radiation Safety and Operational Procedures

August 2019 Revision 4

Contents

Introduction	2
Approach	3
Conclusion	6
Appendices: ANSTO Response to Recommendations and Action Plans.....	7
Appendix One: Joint Recommendations.....	7
Appendix Two: Programs of Work.....	11
Appendix Three: Task Assignments.....	48
Appendix Four: WHS Definitions	75

Introduction

The Independent Review of the ANSTO Health Approach to Occupational Radiation Safety and Operational Procedures (the Review) was conducted in August 2018 as a result of a direction by the CEO of ARPANSA. ANSTO was directed to initiate a Review of “the approach to occupational radiation safety of processes and operational procedures in Building 23, in particular those associated with quality control of molybdenum-99 (Mo-99) samples”. David Jones was appointed as the lead reviewer and was supported by a team of experts (the Panel): Professor Andrew Hopkins, Dr Lynn Williams, Dr Peta Miller and Brent Rogers. The reviewers summarised their findings in a Final Report, which was completed in October 2018 and is available on ANSTO’s website at <https://www.ansto.gov.au/news/independent-report-into-safety-of-building-23-at-ansto>.

ANSTO is committed to providing a safe and healthy workplace for all of our workers (the term “workers” refers to all employees, contractors, students, volunteers and others as detailed in the WHS Act 2011, Section 7); in this light ANSTO welcomes the Final Report from the Panel. ANSTO has considered these findings, which contain important areas for improvement and many sound recommendations, and acknowledges the benefits of improvements in these areas. The Review was conducted in accordance with the ARPANSA direction in relation to Facility Licence F0262 and Building 23, hence the action plans which have been developed focus on improvements to Building 23 operations. ANSTO acknowledges the broader organisational value of a number of the recommendations and has addressed these as appropriate in this response (the Implementation Plan).

The Final Report contained 85 recommendations, which were based in large part on 41 interviews with workers: 18 with employees from central technical functions and ANSTO management, and 23 with ANSTO Health/ANM employees. The key input of ANSTO staff into the review process is acknowledged. In its response to these recommendations, ANSTO has ensured that further examination and worker consultation, through stakeholder engagement, was conducted or is built-in to the action plans to ensure the most effective outcome. ANSTO sees many of the recommendations as areas for improvement that should be considered for best practice. ANSTO/ANSTO Health meets, at least partially, and in some cases substantively, the intent of a number of the recommendations; this is documented in our responses to the recommendations.

This Implementation Plan details the recommendations from the Review and ANSTO’s formal response to each recommendation. It also details ANSTO’s action plans with timing for implementation in response to the recommendations. By implementing the action plans, sustaining our business-as-usual processes and building on new initiatives, ANSTO is committed to continuous improvement to ensure a safe and engaged workplace.

It should be noted that in many cases the action plans outlined are not the only work ANSTO is undertaking to make improvements in a particular area. Additional tasks and initiatives are captured in business-as-usual processes and frameworks that enable continuous improvements across the organisation.

Approach

The Final Report contained 85 recommendations; ANSTO agrees with 79 recommendations, partially agrees with five recommendations and has noted one recommendation (not directed to ANSTO). The actions included in this Implementation Plan have been developed to meet the intent of the 85 recommendations provided. Where recommendations have been partially agreed, ANSTO will meet the intent of these recommendations through alternate means than those described by the Panel.

56 of the recommendations are grouped together into 10 programs of work. Recommendations are grouped together where they are considered to relate to a common domain or area and the same resources are required to address them. Additionally, these groups allow ANSTO to satisfy the intent of a number of recommendations in the one holistic body of work. 23 of the recommendations are categorised as "Task Assignments" where they did not naturally fit into the larger groupings. Six of the recommendations are considered joint and require support from ARPANSA or the Federal Government.

Each recommendation (or group of recommendations) is owned by an ANSTO Officer. This is either the CEO, a Group Executive (GE) or the Chief Nuclear Officer (CNO). As detailed in the WHS Act 2011, an ANSTO Officer is a person who makes, or participates in making decisions that affect the whole or a substantial part of ANSTO (WHS Act 2011, Section 27). The ownership of each recommendation by ANSTO Officers will ensure that the actions are driven from the highest tiers of the organisation by those with accountability and responsibility. The ANSTO Officers have worked with their teams to put together action plans responding to each recommendation or group of recommendations (i.e. programs of work). These action plans form the basis of this overall Implementation Plan and outline how the intent of the recommendation/s will be met. The Implementation Plan is supported by a project management structure which details all of the actions and associated timelines to allow ANSTO to track and monitor the implementation.

The recommendations are presented in this Implementation Plan with ANSTO's response and relevant action plans. They have been grouped and included in the following order:

- Appendix One: Joint Recommendation Action Plans;
- Appendix Two: Programs of Work Action Plans;
- Appendix Three: Task Assignments Action Plans.

ANSTO have tracked the programs of work and individual tasks against the relevant key objectives identified in ANSTO's Work Health and Safety Strategy 2018-2022, to ensure alignment with the key objectives for continuous improvement of safety performance in the organisation. The Safety Strategy describes the safety attributes of the organisation that ANSTO aspires to achieve within this current five-year planning cycle, which are:

1. Our workers will be value driven, prepared, trained, aware and engaged;
2. Our workplaces will be managed on a risk informed basis, fit for purpose, reviewed, maintained, compliant and cover all areas where our people work;
3. Our systems, processes and initiatives will be integrated and of high integrity, enabling, informing, measurement based and validated;
4. Our stakeholders will be engaged to improve WHS performance.

Not surprisingly, these attributes are consistent with the underlying goals of the recommendations made by the Panel. The Safety Strategy will be reviewed as part of the overall planning to ensure that it reflects the ongoing learning derived from the action plans relating to the independent review recommendations.

Table 1 on the following page shows all of the recommendations grouped into the Joint, Program of Work and Task Assignment categories, and their respective responsible ANSTO Officers.

Table 1 Recommendations Matrix

		Joint Recommendations		Programs of Work									Task Assignments	
		ANSTO and ARPANSA <i>Joint actions requiring a collaborative approach with the regulator</i>	Government <i>Joint action requiring support from Government</i>	Augmenting Training Practices <i>Improvements to the way training is developed and delivered</i>	Development of a Nuclear Baseline <i>Development of a Nuclear Baseline and Nuclear Safety Prospectus</i>	Effective Behaviour in the Workplace <i>Improvements to workplace behaviour and support services provided to staff</i>	Enhancing Risk Management Processes <i>Updates to the risk management framework</i>	Enhancing the Change Management Process in ANSTO Health <i>Integrating the change management process</i>	Enhancing the WHS Management System <i>Review and update of documents in the WHS Management System</i>	Identifying and Strengthening Safety Culture in ANSTO Health <i>Improvements to safety culture</i>	Improving Incident Management <i>Improvements to incident investigation and management</i>	Modification to the Safety Assurance Process <i>Improvements to the safety assurance process</i>	Workforce Planning in ANSTO Health <i>Completion of a value chain assessment and workforce plan</i>	Task Assignments
Responsible ANSTO Officer	CEO		1		18, 19, 23							45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 58		6
	CNO	3, 5, 29, 30, 57												44, 59, 60, 76
	CFO						25, 32, 33, 37, 63, 64, 66, 67, 69, 72, 73, 74, 75							
	GE:CAVC			42, 77, 78				24, 36, 62					20, 21, 22, 34, 35, 85	2, 4, 7, 11, 28, 31, 70
	GE:E&CP													61, 65, 71
	GE:PCSS					8, 38, 39, 40, 43			27, 68	16, 17	12, 13, 14, 15, 26, 41			10, 79, 80, 81, 82, 83, 84
	GE:T&E													9

CEO – Chief Executive Officer

CNO – Chief Nuclear Officer

CFO – Chief Financial Officer

GE: CAVC – Group Executive Customer Advocacy and Value Chain (CAVC)

GE: E&CP – Group Executive Engineering & Capital Programs (ECP)

GE: PCSS – Group Executive People, Culture, Safety & Security (PCSS)

GE: T&E – Group Executive Transformation & Engagement (T&E)

Recommendations were given a priority rating by the Panel based on criteria shown on Page 27 of the Final Report. ANSTO has reviewed the recommendations and using a risk informed approach has assigned priorities to ensure that those having the highest impact for safety are implemented as soon as reasonably practicable. ANSTO has considered the initiatives, processes and frameworks already in place, some of which may not have been apparent to and hence able to be considered by the Panel in their priority rating. ANSTO have defined the priority ratings on the following basis:

- High priority represents a recommendation for which all or some actions are expected to result in a significant improvement to radiological or other aspects of safety.
- Medium priority represents a recommendation for which all or some actions are expected to result in a moderate improvement to radiological or other aspects of safety.
- Low priority represents a recommendation for which all or some actions are expected to result in an incremental improvement to radiological or other aspects of safety.

A comparison of the Panel’s priority ratings along with ANSTO’s redefined priority ratings are shown below in Table 2. Recommendations for which ANSTO has redefined the priority rating to a higher category are shown in red and to a lower category in blue.

Table 2 Recommendation Priority Ratings

	High	Medium	Low	Area for Improvement
Panel Priority Ratings	1, 3, 4, 6, 9, 12, 13, 15, 16, 18, 19, 23, 31, 33, 38, 39, 57, 61, 64, 66, 67, 69, 72, 75, 80, 82	5, 11, 14, 21, 26, 29, 30, 32, 34, 35, 36, 42, 44, 46, 50, 52, 53, 62, 70, 71, 78, 79, 84, 85	10, 28, 76	2, 7, 8, 17, 20, 22, 24, 25, 27, 37, 40, 41, 43, 45, 47, 48, 49, 51, 54, 55, 56, 58, 59, 60, 63, 65, 68, 73, 74, 77, 81, 83
ANSTO Priority Ratings	1, 9, 18, 19, 20, 21, 22, 23, 24, 31, 34, 35, 36, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 58, 61, 62, 85	3, 5, 6, 8, 11, 12, 13, 14, 15, 16, 17, 25, 26, 29, 30, 32, 33, 37, 38, 39, 41, 40, 43, 44, 57, 63, 64, 66, 67, 69, 70, 71, 72, 73, 74, 75, 79, 80, 84	2, 4, 7, 10, 27, 28, 42, 59, 60, 65, 68, 76, 77, 78, 81, 82, 83	-

Work has commenced on the actions, as detailed in the action plans below. Where resourcing requirements overlap, ANSTO is focussing its efforts on the higher priority recommendations, with the medium and low priority recommendations being appropriately expedited. The scope of some of the recommendations and associated programs of work means that full implementation will progress over six months to three years.

The programs identified as having the highest priority are Modifications to the Safety Assurance Process (previously SAC, Safety Assurance Committee), ANSTO Health Workforce Planning, Enhancing the Change Management Process in ANSTO Health and the Development of a Nuclear Baseline. ANSTO considers that these four programs will deliver the most significant improvements to safety.

Conclusion

The prioritisation of recommendations based on the expected improvement to safety (taking into account existing business-as-usual processes and initiatives) has enabled ANSTO to determine the most effective implementation plan in response to the Review's recommendations. The consolidation of the action plans into the Implementation Plan considers the priority of the recommendation (i.e. the expected improvement to safety), resource requirements, and the accessibility of resources. Not all of the action plans will be able to be implemented concurrently; therefore, ANSTO is taking a risk informed approach, so that those with the highest priority and/or impact are implemented as soon as reasonably practicable.

ANSTO recognises the value of the work involved in meeting the intent of the recommendations and the substantial effort which will be involved. This plan will be reviewed on a regular basis, and as action plans reach a stage of maturity will be subject to change.

It must be emphasised that the Implementation Plan has been developed to address the 85 recommendations from the Review and does not reflect all of ANSTO's activities in these areas. ANSTO has management systems and processes in place that have been developed in line with safety, quality and environmental standards to underpin robust business-as-usual practices. ANSTO takes seriously its obligation to provide a safe and healthy workplace for its workers and is committed to continually improving safety and staff engagement. ANSTO will continue to apply its management frameworks along with regulatory guidance and best-practice approaches which will be complemented through the enactment of the Implementation Plan.

Appendices: ANSTO Response to Recommendations and Action Plans

Appendix One: Joint Recommendations

ANSTO and Government – Recommendation 1		
Rec #	Recommendation	ANSTO Response
1	<p>The Australian government should commit to a replacement facility for B23 as soon as is practicable through either providing additional funding or endorsing an alternative funding strategy that will enable ANSTO to plan for the future more effectively.</p> <p>[Context from Review is ANSTO Health]</p>	<p>Noted - The Department of Industry, Innovation and Science and ANSTO are working closely together to scope costs in regard to interim remediation works of Building 23, as well as its eventual replacement, and relevant offset and funding options.</p> <p>Status: Open</p>
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)	Key Objective 4: We engage with our external stakeholders to improve WHS performance.	
Outcome	Interim remediation of Building 23 based on optimisation through appropriate engineering solutions, and an eventual replacement to ensure that ANSTO can continue to produce nuclear medicine in a safe, sustainable and compliant manner.	
ANSTO Officer	Chief Executive Officer	
Priority	High	

ANSTO and ARPANSA – Recommendations 3, 5, 29, 30 and 57		
Rec #	Recommendation	ANSTO Response
3	ANSTO and ARPANSA engage in a working arrangement to set out specific principles to be applied to ANSTO Health facilities to ensure a graded approach is applied to any improvements arising from this review.	<p>Agreed - The principle of proportionate regulation is one that ARPANSA have adopted in their regulatory approach. ARPANSA have also formalised a holistic approach to regulation in their Holistic Safety Guide. An initial meeting has been held with ARPANSA. ANSTO will initiate further discussions with ARPANSA as to how these principles will be applied to their oversight of ANSTO's response to the independent review recommendations.</p> <p>Status: Open</p>
5	ANSTO, in conjunction with ARPANSA, should institute a process of Learning from Experience within their management processes, including extending the network to include overseas experience.	<p>Agreed - Both ANSTO and ARPANSA utilise a range of means to examine and learn from external experience, both within the worldwide nuclear industry and also other high reliability-type industries. ANSTO will coordinate with ARPANSA to formalise these Learning from Experience (LFE) approaches and how these are disseminated to staff and learnings incorporated into risk assessment, training and operating procedures.</p> <p>Status: Open</p>
29	Both ARPANSA and ANSTO should develop documentation that offers guidance on the interpretation and implementation of ARPANSA Licence Conditions and which take due cognisance of the suite of documents available through international bodies such as IAEA, WENRA and relevant good international regulatory practice e.g. UK, France, US, etc.	<p>Agreed - Unlike the situation in the UK, the ARPANS Act dictates that ARPANSA licence individual Controlled Facilities rather than the whole site and operating organisation. This means that licence conditions are, generally, specific to the individual facilities. In contrast, the UK regulator applies a defined suite of licence conditions for the entire site. ANSTO will work with ARPANSA to develop guidance for specific licence conditions and incorporate that into ANSTO regulatory guidance and training. The Safety Management Prospectus and Nuclear Baseline will address relevant aspects of IAEA guidance and good international practice.</p> <p>Status: Open</p>
30	Nuclear safety management arrangements, as demonstrated within IAEA Safety Fundamentals, are implemented which should document the interface arrangements between ANSTO and ARPANSA, taking due cognisance of the recommendation for a project lifecycle and gate review process.	<p>Agreed - Stage gates are already built into the major projects process and link in with the requirement for ARPANSA approvals. The interface between ANSTO and ARPANSA will be incorporated into the revised Nuclear Safety Standard (Safety Management Prospectus).</p> <p>Status: Open</p>

Continued - ANSTO and ARPANSA – Recommendations 3, 5, 29, 30 and 57			
Rec #	Recommendation		ANSTO Response
57	A more formal structure and programme of interface meetings and other interactions should be put in place between ARPANSA and ANSTO as part of both organisations' arrangements.		<p>Agreed - ANSTO and ARPANSA have regular meetings on a range of issues. These include meetings of the respective CEOs, meetings between the ANSTO CNO and the Chief Regulatory Officer and a range of inspection meetings against the 18 licences that ANSTO holds. All meetings are open and transparent and recognise the role of the Regulator as the statutory authority and ANSTO as the body with fundamental responsibility for safety. The first meeting of the ANSTO-ARPANSA Liaison Forum (AALF) was held on 27 February 2019. Note ARPANSA already have similar forums with other large licensees. The AALF will also assist in meeting the intent of recommendations 3, 5 and 30.</p> <p>Status: Open</p>
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)		Key Objective 4: We engage with our external stakeholders to improve WHS performance.	
Outcome		ANSTO and ARPANSA develop appropriate mechanisms for the formal and informal exchange of information to meet shared objectives for safe and compliant delivery of ANSTO's strategic objectives.	
ANSTO Officer		Chief Nuclear Officer	
Priority		High	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
3	A1000	Review and agree the proposed priorities, action plan timescales and reporting mechanisms with ARPANSA.	Q4 2019
5	A1010	Assess ANSTO's internal processes for reviewing data from GRC and other sources.	Q1 2020
5	A1020	Identify sources of information for LfE (e.g. IAEA, FNCA, ANSN, WHS Alert). Identify mechanisms for review, dissemination and reporting.	Q4 2019
5	A1030	Arrangements for LfE to be worked out with ARPANSA.	Q4 2019
5	A1040	Update documentation and implement the LfE process (including communication and development/delivery of training).	Q1 2020

Continued – ANSTO and ARPANSA – Recommendations 3, 5, 29, 30 and 57			
Rec #	Action ID	Action	Due Date (Calendar Quarter)
29	A1050	Discuss with ARPANSA the proposal to review guidance documents related to licence conditions. Update documentation and implement process as appropriate (incl. communication and development/delivery of training).	Q4 2019
30	A1060	The interface between ANSTO and ARPANSA will be formalised within the Safety Management Prospectus in line with the extant IAEA guidance.	Q4 2019
57	A1070	A more formal structure and programme of interface meetings and other interactions between ARPANSA and ANSTO will be formalised at multiple levels between both organisations.	Q2 2019

Appendix Two: Programs of Work

Augmenting Training Practices – Recommendations 42, 77 and 78		
<p>The reviewers made a number of key recommendations around the content of training courses and training documentation. The Panel noted in the Final Report the clear evidence that comprehensive training is being provided in ANSTO Health. Further to this (and outside the scope of this implementation plan), ANSTO commenced the ANSTO Health Training Model Project in August 2018, prior to the Review, to further improve training practices, including by incorporating best practice from OPAL. The ANSTO Health Training Model Project has commenced the development of a training framework to ensure the implementation of best practice in compliance and competency based training. This will lead to improvements in the content and clarity of training (and associated documentation) as well as to the way training is delivered. In parallel, the Radiation Protection Services (RPS) team have commenced a review of radiation safety training in order to increase the knowledge of staff in the health effects of radiation. Additionally, staff are made aware of the key behavioural aspects contributing to a strong safety culture including: Questioning attitude, conservative decision making, and the application of the STAR principle. This is reinforced through all safety related training from initial induction onwards. The mandate given by the CEO that “I can stop work if I feel it is unsafe, I have the right to challenge any co-worker if I see an unsafe act and I never walk past an unsafe act or hazard without taking immediate action” are contextualised within relevant training.</p>		
Rec #	Recommendation	ANSTO Response
42	<p>Training documents should be user-friendly and include explicit hazard warnings and cues in the text to alert operators around safety or quality issues. [Context from Review is ANSTO Health]</p>	<p>Agreed - This is in progress as it is part of corrective action already agreed with ARPANSA.</p> <p>Status: Open</p>
77	<p>ANSTO should include basic information about the health effects of radiation exposures within their radiation safety training modules.</p>	<p>Agreed - ANSTO will review the current radiation protection training and strengthen the content in line with review findings, best practice and industry relevance. The current radiation safety training for all ANSTO radiation workers includes information on the deterministic health effects from large whole body exposures and skin doses. Since the review, ANSTO Radiation Protection (RPS) staff have also released a guide (AG-3320) which provides information on the health effects of radiation, and commenced the roll out of training in this to staff in ANSTO Health.</p> <p>Status: Open</p>

Continued – Augmenting Training Practices – Recommendations 42, 77 and 78			
Rec #	Recommendation		ANSTO Response
78	ANSTO should implement a training scheme to include proper measurement of beta radiation for all RPS personnel.		<p>Agreed – ANSTO already has the capability to measure beta radiation in the form of thin end window contamination monitors. There are various designs available in Building 23. They are used often by operators and RPS to search for contamination and assess surface concentrations on objects and people. RPS will update their training in accordance with best practice to appropriately cover measurement of beta dose rates and beta contamination using appropriate instruments.</p> <p>Status: Open</p>
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)		<p>Key Objective 1: Our workers will be value driven, enabled, prepared, trained, aware and engaged.</p> <p>Key Objective 3: Our systems, processes and initiatives will be integrated and of high integrity, enabling, informing, measurement based and validated.</p>	
Outcome		Strengthened training delivery and increased awareness of the health effects of radiation.	
Critical Success Factors (How improvements will be measured & sustained.)		<ul style="list-style-type: none"> Procedures in ANSTO Health clearly warn operators of the relevant hazards. The Learning Management System (LMS) will be audited to ascertain that the relevant staff have been appropriately trained and that training has been effective. Strengthened training programs and increased awareness of the health effects of radiation. The relevant radiation safety training will be updated to include more information in this area; The Learning Management System will be audited to ascertain that the relevant staff have been appropriately trained and that training has been effective. RPS staff use best practice in the measurement of beta dose rates and beta contamination. The Learning Management System will be audited to ascertain that the relevant staff have been appropriately trained. 	
ANSTO Officer		Group Executive Customer Advocacy and Value Chain	
Task Leader/s		WHS Performance Reporting Analyst	
Priority		Low	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
42	A2000	Ensure that as documents are updated, explicit hazard warnings relating to safety and quality are included throughout the document, where relevant.	Q2 2020

Continued – Augmenting Training Practices – Recommendations 4, 42, 77 and 78			
Rec #	Action ID	Action	Due Date (Calendar Quarter)
77	A2010	RPS team will review, individually and collectively, the basic online radiation induction, the basic radiation training, and the radiation safety workshop to: a. Verify that health effects of radiation exposures are included; b. Confirm that these are appropriate training courses for this topic; c. Update, if required; d. Identify if this topic should be covered in other training courses (if not already); and e. Develop additional training events, if required.	Q3 2019
77	A2020	ANSTO Health radiation protection training to be reviewed to ensure that it includes information on the health effects of exposure to radiation.	Q1 2020
78	A2030	Update Radiation Protection training to appropriately cover measurement of beta dose rates and beta contamination using appropriate instruments. This will include topics such as: <ul style="list-style-type: none"> • appropriate instruments, • calibrations, • measurement techniques using different instruments, • instrument limitations and interpretation of data 	Q2 2020

Development of a Nuclear Baseline – Recommendations 18, 19 and 23		
<p>The Review identified ensuring adequate organisational capability as a high priority and raised this in recommendations 18, 19 and 23. ANSTO has commenced the development of a Nuclear Baseline which will be used to define and assess adequate organisational capability. The Nuclear Baseline will be incorporated into the requirement for Plans and Arrangements for managing safety required under the ARPANS statutory framework. A Nuclear Safety Management Prospectus will also be developed in order to demonstrate the integration of all of the systems supporting nuclear safety at ANSTO. This will help to ensure that the potential impacts of organisational change are identified, assessed and appropriately managed.</p>		
Rec #	Recommendation	ANSTO Response
18	The ANSTO CEO implements and takes full ownership of the process to ensure adequate organisational capability for the provision of nuclear safety advice and independent challenge and the appropriate organisation, staffing and management of the nuclear safety advice and independent challenge capabilities.	<p>Agreed - The CEO does own these processes. The processes will be enhanced by the development of the Nuclear Baseline and the Nuclear Safety Management Prospectus.</p> <p>Status: Open</p>
19	The Nuclear Baseline should be owned by the person who has full responsibility for the nuclear licence, the ANSTO CEO. The content of the baseline can be formally delegated accordingly, however, it should be emphasised that the ultimate responsibility remains with the CEO of ANSTO.	<p>Agreed - As the licence holder for all of ANSTO's licences, the CEO owns the Nuclear Baseline. Development of the Nuclear Baseline will be finalised and discussed with internal stakeholders, ARPANSA and the relevant independent expert reviewers.</p> <p>Status: Open</p>
23	The ANSTO CEO should identify and implement Technical Authority, Design Authority and independent nuclear safety positions, to include appropriate terms of reference (TORs) and include each into the management of change process TORs.	<p>Agreed - The CEO, Group Executive PCSS and Chief Nuclear Officer will seek to integrate this recommendation, with appropriate organisational design, as part of the Nuclear Baseline process.</p> <p>Status: Open</p>
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)	<p>Key Objective 1: Our workers will be value driven, enabled, prepared, trained, aware and engaged.</p> <p>Key Objective 3: Our systems, processes and initiatives will be integrated and of high integrity, enabling, informing, measurement based and validated.</p>	
Outcome	The organisation demonstrates adequate organisational capability to manage nuclear safety and to effectively manage the potential impacts associated with organisational change.	
Critical Success Factors (How improvements will be measured & sustained.)	<ul style="list-style-type: none"> Development and utilisation of an effective Nuclear Baseline process. This will be assessed against a set of indicators (to be developed with the Nuclear Baseline) to assess that the Baseline is fit for purpose and properly managed. 	
ANSTO Officer	Chief Executive Officer	
Task Leader/s	Chief Nuclear Officer	
Priority	High	

Continued – Development of a Nuclear Baseline – Recommendations 18, 19 and 23			
Rec #	Action ID	Action	Due Date (Calendar Quarter)
18, 19	A2040	Develop the Nuclear Baseline Process (the process will outline the ownership of the Nuclear Baseline by the CEO, who is the Licence Holder). Incorporate the development of the Nuclear Baseline as part of the Plans and Arrangements for Effective Control, enabling the effective management of organisational change.	Q4 2019
18, 19	A2050	Develop the Nuclear Safety Management Prospectus to demonstrate the integration of the diverse systems supporting nuclear safety within ANSTO. The prospectus will form part of the site wide plans and arrangements for managing nuclear safety.	Q4 2019
23	A2060	Technical Authority, Design Authority and Independent Nuclear Safety related positions will be reviewed and considered against the current roles and functions within ANSTO and implemented within the ANSTO context as part of the implementation of the Nuclear Baseline.	Q1 2020

Effective Behaviour in the Workplace – Recommendations 8, 38, 39, 40 and 43

These recommendations relate to fostering appropriate behaviours in the workplace. ANSTO is committed to providing a safe and healthy workplace for all of our workers; this means a workplace where interactions are respectful and inappropriate behaviours are minimised and effectively managed. ANSTO is committed to providing a workplace which celebrates diversity and is inclusive; where each staff member feels valued, respected and safe. ANSTO seeks to foster positive working relationships and practices in the workplace and will not tolerate any form of workplace harassment, in accordance with all relevant legislation and regulations. ANSTO has a range of measures for handling workplace conflict from the deployment of Performance Coaches to a defined management process for handling alleged cases of bullying in line with “no blame, full disclosure” and “restorative justice” models. As acknowledged in the Review, ANSTO managers receive training in managing conflict which has been positively received across the organisation. ANSTO will continue to review the way instances of workplace conflict are handled and investigated, including identifying causal factors which look beyond the individuals involved. ANSTO will increase awareness of ANSTO’s whistleblowing processes and employee support mechanisms.

Additionally, in November 2018 ANSTO conducted focus groups on workplace behaviours through an independent external consultant. 130 staff were selected randomly from a broad cross section of the organisation which represented at least 9% of each work area, to participate in a series of focus groups. The feedback indicated that the majority of workers have positive experiences and interactions aligned with ANSTO’s values. A subset of the feedback identified some workplace behaviour did not meet the ANSTO values and these issues were appropriately actioned. ANSTO has since established a People and Culture Executive Standing Committee to provide direction to ANSTO culture based on current research and best-practice as well as reviewing and addressing workplace cultural matters.

Rec #	Recommendation	ANSTO Response
8	The ANSTO PCSS function should find a way to more effectively deploy their resources in the arena of conflict resolution. [Context from Review is ANSTO Health]	Agreed - The initial responsibility for conflict resolution is considered a line management function. ANSTO’s supervisors and managers receive training in people management skills including managing conflict and alleged misconduct. The PCSS team are available to provide support at any time throughout the process. A Performance Coach has been deployed into ANSTO Health since August 2018 to aid the group in a number of areas including but not limited to conflict resolution. The PCSS team will consider how it can further increase its effective support in the area of conflict resolution. Status: Open

Continued – Effective Behaviour in the Workplace – Recommendations 8, 38, 39, 40 and 43

Rec #	Recommendation	ANSTO Response
38	<p>A causal analysis approach should be used when investigating and responding to alleged poor workplace behaviour including bullying. [Context from Review is ANSTO Health]</p>	<p>Agreed – ANSTO recognises the range of potential workplace behavioural issues and seeks to respond to these issues in a proportionate manner. The response ranges from setting of expectations, in terms of behaviours, through local management and early intervention, to investigation and management of alleged misconduct as agreed in the Enterprise Agreement.</p> <p>ANSTO has a robust process that is adhered to and applied in any alleged matters of misconduct. ANSTO has clearly documented its intolerance of any workplace harassment, bullying or discrimination in “Maintaining a Workplace Free from Harassment, Bullying or Discrimination” (AP-1029).The process for handling these matters is detailed in “The Management of Misconduct Procedure” (AP-6907) – which is supported by the “ANSTO Investigations Manual” (AG-6075) which details the investigation process. ANSTO’s investigations into matters of this nature do consider extenuating circumstances and contributing factors.</p> <p>ANSTO has a group of specially trained staff who conduct formal investigations of this nature. These staff are trained in and use a methodology which is aligned with a causal analysis approach. The investigation methodology will be reviewed to ensure that the factors identified in ANSTO’s “Incident Investigations” Guide (AG-2375) are addressed in the ANSTO Investigations manual, to ensure that items, such as those below, are considered as potential causes or contributory factors to poor workplace behaviour:</p> <ul style="list-style-type: none"> • Systems and processes • Equipment and maintenance • Human factors • Materials and resources • Leadership and policy • Environment • Training and awareness <p>Status: Open</p>

Continued – Effective Behaviour in the Workplace – Recommendations 8, 38, 39, 40 and 43		
Rec #	Recommendation	ANSTO Response
39	Unacceptable behaviours including bullying and harassment should be included in the incident register with the appropriate anonymity protections. [Context from Review is ANSTO Health]	<p>Partially Agreed – ANSTO meets the same objectives through the use of a range of alternative mechanisms. The incident register (GRC) is not considered the correct mechanism since it is based on "no blame, full disclosure" and does not have the appropriate anonymity protections. The PCSS team maintain a separate register for cases of bullying and harassment with appropriate anonymity protections. ANSTO's process for addressing cases of bullying and harassment are documented and applied.</p> <p>Status: Open pending review and verification</p>
40	ANSTO should initiate a programme of active promotion of and adherence with the ANSTO whistleblowing procedures. [Context from Review is ANSTO Health]	<p>Agreed – ANSTO has a number of options available for staff to report and seek support in relation to workplace bullying and harassment. Managers/supervisors are considered the first port of call. In addition ANSTO has trained staff – Workplace Contact Officers – who act as points of call and provide support to employees who believe they are being harassed. The PCSS team are available to provide support to staff and line managers. The Employee Assistance Program (EAP) is an independent and confidential support service which provides counselling and advice. This service also has a Manager Assist Program (MAP) which can provide assistance to line management in managing difficult behaviours.</p> <p>Additionally ANSTO launched the FairCall reporting system in 2016; this was promoted across all of ANSTO's communications channels. The FairCall reporting service, run by KPMG, is a reporting channel for staff who are concerned about unacceptable behaviour. The service is confidential and allows staff to contact an independent party if they do not feel comfortable discussing particular matters within the organisation. The service promptly addresses any reports by providing a report within 24 hours to the relevant contact person for investigation. The nature and frequency of promotion of this service will be reviewed.</p> <p>ANSTO staff are also able to make a disclosure under the Public Interest Disclosure (PID) Scheme. The PID encourages the disclosure of information involving suspected wrongdoing.</p> <p>ANSTO will review its promotion of the above disclosure options.</p> <p>Status: Open</p>

Continued – Effective Behaviour in the Workplace – Recommendations 8, 38, 39, 40 and 43		
Rec #	Recommendation	ANSTO Response
43	Staff who have experienced harm arising from recent events should be offered easy access to appropriate support to assist their recovery. [Context from Review is ANSTO Health]	<p>Agreed – All staff have access to the Employee Assistance Program (EAP) which is an independent counselling service. EAP were made available on site following the release of the Review. Additionally PCSS have deployed a Performance Coach, who is able to provide support to staff, into Building 23.</p> <p>ANSTO has for many years operated an early intervention programme to ensure that staff have easy, well managed access to appropriate medical professionals to prevent and mitigate the adverse consequences from any workplace related issue.</p> <p>The CEO had 2 x full staff meetings with ANSTO Health soon after the Review was completed. The CEO reiterated the existing support mechanisms available for staff should they need them, and reminded staff that they could speak to him on a confidential basis. This led to the resolution of a recent event which had caused concern to staff. The managers and staff members involved agreed the instance was a genuine misunderstanding and agreed to move forward in a positive way.</p> <p>Status: Open pending review and verification</p>
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)	Key Objective 1: Our workers will be value driven, enabled, prepared, trained, aware and engaged. Key Objective 3: Our systems, processes and initiatives will be integrated and of high integrity, enabling, informing, measurement based and validated.	
Outcome	ANSTO lives up to its value of Trust + Respect helped in part by ensuring that poor behaviour in the workplace is minimised and effectively managed.	
Critical Success Factors (How improvements will be measured & sustained.)	<ul style="list-style-type: none"> • Causal/contributory factors that can lead to inappropriate workplace behaviours are considered as part of any investigation. This will be demonstrated through the application of an updated methodology. • Instances of workplace conflict are handled effectively. ANSTO’s pulse and safety climate surveys (which are conducted periodically) will be used to assess whether issues are handled in an appropriate and timely manner. • Reported instances of workplace conflict are recorded, investigated objectively and resolved in a timely fashion to the satisfaction of all parties. The PCSS register for bullying and harassment will be evaluated and reviewed periodically to ensure effectiveness. 	
ANSTO Officer	Group Executive People, Culture, Safety & Security	
Task Leader/s	General Manager Organisational Design and Operations	
Priority	Medium	

Continued – Effective Behaviour in the Workplace – Recommendations 8, 38, 39, 40 and 43			
Rec #	Action ID	Action	Due Date (Calendar Quarter)
8	A2070	Review how PCSS staff coordinate to provide support at ANSTO in situations of conflict and develop a robust process of response.	Q4 2019
38	A2080	Review and update “The Management of Misconduct Procedure” (AP-6907) and the “ANSTO Investigations Manual” (AG-6075) to ensure that causal/contributory causes to poor workplace behaviour are considered.	Q4 2020
40	A2090	Review how the ANSTO Protected Disclosure Reporting System is promoted to ANSTO staff, and increase the frequency if deemed necessary.	Q1 2020
43	A2100	Update communication of the various support mechanisms and tools available to support staff in ANSTO Health.	Q4 2018 (Complete)

Enhancing Risk Management Processes – Recommendations 25, 32, 33, 37, 63, 64, 66, 67, 69, 72, 73, 74 and 75

This group of recommendations pertained to Risk Management processes, in particular how risk is assessed and controlled. ANSTO has an Enterprise Risk Management Framework that directs and governs risk management activities, and reviews this framework on an annual basis. Associated risk management processes ensure that risks are identified, owned, managed, monitored and reviewed. This work program will focus on review, clarification and update for specific identified matters including identifying human factors, the greater use of deterministic assessment rather than probabilistic risk analysis, assessment of inherent and residual risk, risk reduction techniques, holistic risk assessment, updates to the hierarchy of risk control, the application of As Low As Reasonably Achievable (ALARA)/As Low As Reasonably Practicable (ALARP), and the formal management of forward actions from safety assessments. The majority of these items are already included within ANSTO’s WHS Management system which is accredited to ISO 45001, but will be subject to appropriate continuous improvement in line with best practice.

Rec #	Recommendation	ANSTO Response
25	The classification for change management of any physical change which could impact on nuclear safety, including changes to engineered or procedural safety measures, should be based on deterministic methods, complimented where appropriate by probabilistic methods and design/engineering judgement.	Agreed - The proposal for incorporating deterministic principles within ANSTO’s existing risk matrix, as suggested by the reviewers, has been subject to internal review and will be implemented. Status: Open
32	Risk assessments should be holistic and systematically consider controls for each hazard category and then for the whole job and through the entire life cycle. [Context from Review is ANSTO Health]	Agreed - ANSTO’s risk methodology and approach is under review. The changes to the risk management approach for nuclear activities will be submitted to ARPANSA for approval under S.63. Status: Open
33	Suitable techniques for risk reduction including cost benefit analysis and multi criteria decision analysis of control options should include all relevant potential life costs and benefits.	Agreed - ANSTO’s risk methodology and approach is under review. As part of this review, risk reduction techniques will be considered. ANSTO will use suitable techniques for risk reduction consistent with our regulatory environment. Status: Open
37	Architects, engineers and others designing or procuring modifications to ANSTO facilities and equipment should accommodate relevant human factors including anthropometric ranges. [Context from Review is ANSTO Health]	Agreed - ANSTO WHS specialists, including the accredited Occupational Hygienist, contribute to and review proposals to ensure that ergonomic and human factors are addressed. This requirement will be formalised in the revised safety assurance process. Status: Open
63	The definitions, inputs and requirements associated with calculating inherent risk and residual risk should be made clear.	Agreed – Inherent risk and residual risk are defined and explained in ANSTO’s Risk Management Framework (AG-5220 and AP-5216). The risk management framework is currently under review; this information will be appropriately updated as part of this process. Status: Open

Continued – Enhancing Risk Management Processes – Recommendations 25, 32, 33, 37, 63, 64, 66, 67, 69, 72, 73, 74 and 75		
Rec #	Recommendation	ANSTO Response
64	ANSTO should modify its safety assessment approach to a deterministic assessment approach in line with relevant good international practice with the residual risk (probabilistic) calculations acting as a supporting analysis rather than primary analysis.	Agreed - The Risk Management Framework is currently under review. The proposal for incorporating deterministic principles within ANSTO's existing risk matrix, as suggested by the reviewers, has been subject to internal review and will be implemented. Status: Open
66	The role of PSA should be clarified especially if the deterministic approach proposed earlier is adopted.	Agreed - The Risk Management Framework is currently under review; documentation and training will be updated to ensure clarity around Probabilistic Safety Assessment (PSA). Status: Open
67	The hierarchy of risk control should also include the “prevent, protect, mitigate” priorities as well as the preference for passive over active and engineering over procedural.	Agreed - ANSTO's existing hierarchy of risk control does emphasise the preference for engineering over procedural controls. This recommendation will be reviewed in line with our current risk control strategies. Status: Open
69	The SSC categorisation should be driven by deterministic safety demands rather than probabilistic.	Agreed – The categorisation of Systems, Structures and Components (SSC's) will be reviewed and incorporated into relevant ANSTO procedures and training. Status: Open
72	ANSTO risk reduction process should be made more robust and that the requirement for formal option studies and decision processes are included within the process as a specific requirement.	Agreed - The Risk Management Framework is currently under review. Relevant processes will be reviewed to ensure alignment with best practice. Status: Open
73	ANSTO should remove the criterion that LOW/VERY LOW risk is acceptable and transition to a broadly acceptable criterion requiring further risk reduction unless it is grossly disproportionate in terms of reduced risk and cost.	Agreed - Gross disproportionality is part of the UK legal definition of reasonable practicability. The requirement to ensure that controls are optimised and risks reduced to ALARA/ALARP is fundamental to the existing process of safety assurance and approvals. The Low/Very Low standard is the standard for approval, with a demonstration of optimisation. This is how the process operates in practice, but this requirement will be formalised as part of the revised safety assurance process. Status: Open
74	The risk assessments involving operator errors should be re-examined to take into account human performance limiting values and dependencies. [Context from Review is ANSTO Health]	Agreed - The risk assessments in ANSTO Health involving operator errors are in the process of being updated as part of corrective action already agreed with ARPANSA. Status: Open

Continued – Enhancing Risk Management Processes – Recommendations 25, 32, 33, 37, 63, 64, 66, 67, 69, 72, 73, 74 and 75			
Rec #	Recommendation		ANSTO Response
75	The forward actions arising from the safety assessment and safety case process should be formalised within the risk reduction process and a formal process for their implementation and close-out included within the ANSTO procedures.		Agreed - The Risk Management Framework is currently under review. A process for implementation and close-out of actions will be incorporated into ANSTO procedures and relevant training. Status: Open
Continued – Enhancing Risk Management Processes – Recommendations 25, 32, 33, 37, 63, 64, 66, 67, 69, 72, 73, 74 and 75			
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)	Key Objective 2: Our workplaces will be managed on a risk informed basis, fit for purpose, monitored, maintained and compliant. Key Objective 3: Our systems, processes and initiatives will be integrated and of high integrity, enabling, informing, measurement based and validated.		
Outcome	Hazards, consequences, risks and controls are optimised in a robust, sustainable and holistic manner.		
Critical Success Factors (How improvements will be measured & sustained.)	<ul style="list-style-type: none"> The risk management approach for high-risk and high consequence tasks is made more robust. Demonstrated through the application of deterministic assessment and the identification of critical controls. The role of PSA will be clarified. This will be demonstrated through the application of an updated methodology. Risk assessments are holistic in nature; considering controls for each hazard category, and are holistic (i.e. considering the full life cycle of a task/process). This will be demonstrated through the application of an updated methodology. Risks are optimised by the application of the hierarchy of controls; where human factors are identified as initiators or controls these should recognise the full range of potential impacts including the person-machine-organisational interface. Relevant documents will be improved to make clear the methods for calculating inherent risk and residual risk. Appropriate controls are identified to show that residual risks are reduced to ALARA/ALARP. Demonstrated by application of formal risk reduction techniques during risk assessments. Controls will support defence in depth with independence, redundancy and diversity of controls being given specific consideration. Risk management processes integrate with operational practice/key business process to enable effective risk management. Demonstrated by updating documentation to reflect the changes outlined in actions below and adequately training staff in the updates. ANSTO Health risk assessments are reviewed and updated with a focus on human factors. 		
ANSTO Officer	Chief Financial Officer		
Task Leader/s	Senior Manager, Governance Risk Compliance and Assurance		
Priority	Medium		
Rec #	Action ID	Action	Due Date (Calendar Quarter)
37	A2110	Develop checklist(s) to ensure human factors are considered as part of concept and design phases.	Q3 2020

Continued – Enhancing Risk Management Processes – Recommendations 25, 32, 33, 37, 63, 64, 66, 67, 69, 72, 73, 74 and 75			
Rec #	Action ID	Action	Due Date (Calendar Quarter)
37	A2120	Update relevant policies and procedures (e.g. Building Codes, Project Managers Handbook, SAC) to reflect changes above.	Q3 2020
37	A2130	Develop/update training materials for above.	Q3 2020
37	A2140	Train relevant staff in new requirements (for above).	Q3 2020
25, 64, 66, 69	A2150	Develop framework to articulate the application of deterministic safety methods.	Q3 2019
25, 64, 66, 69	A2160	Update relevant policies and procedures (e.g. change control, ERM procedure) to reflect changes above.	Q3 2019
25, 64, 66, 69	A2170	Develop/update training materials for above.	Q4 2019
25, 64, 66, 69	A2180	Train relevant staff in new requirements (for above).	Q4 2019
69	A2190	Review and update the SSC categorisation process so that the SSC categorisation of engineered controls is based on deterministic safety assessment methodology.	Q4 2020
63	A2200	Update AP-5216 Enterprise Risk Management Procedure to reflect changes to the Risk Management Process with regards to calculating inherent and residual risk.	Q4 2019
63	A2210	Train relevant staff in new requirements (for above).	Q4 2019
33 and 72	A2220	Update risk management toolkits to reflect relevant risk reduction techniques in line with better practice e.g. <i>The Application of ALARP to Radiological Risk (A Nuclear Industry Good Practice Guide)</i> and existing ANSTO practices e.g. Nuclear Operations (In consultation).	Q4 2019
33 and 72	A2230	Train relevant staff in new requirements (for above).	Q3 2019

Continued – Enhancing Risk Management Processes – Recommendations 25, 32, 33, 37, 63, 64, 66, 67, 69, 72, 73, 74 and 75			
Rec #	Action ID	Action	Due Date (Calendar Quarter)
32	A2240	Develop 'risk-based questionnaires' to ensure that all relevant organisational, job, task and people risk factors associated with safety-critical tasks are appropriately and comprehensively considered.	Q4 2019
32	A2250	Add specific prompts to the ANSTO Risk Management Process (and relevant other processes) to ensure that risk assessments (especially for safety-critical tasks) are holistic (i.e. covering whole job, organisational changes and transitions (e.g. commissioning to operation to decommissioning) and life cycle)) and human-centred.	Q4 2019
32	A2260	Communicate changes/new requirements for above to the organisation.	Q4 2019
32	A2270	Develop/update training materials for above.	Q4 2019
32	A2280	Train relevant staff in new requirements (for above).	Q4 2019
67	A2290	Update "Hierarchy of Risk Control Flowchart AG-2407" to reflect recommended changes with regards to including "prevent, protect, mitigate" into the hierarchy of risk control.	Q1 2020
67	A2300	Develop/update training materials for above.	Q1 2020
67	A2310	Train relevant staff in new requirements (for above).	Q1 2020
73	A2320	Determine control documents to be updated.	Q2 2021
73	A2330	Align relevant controlled documents with <i>The Application of ALARP to Radiological Risk (A Nuclear Industry Good Practice Guide)</i> and <i>UK Health & Safety Executive</i> guidance.	Q2 2021
73	A2340	Develop/update training materials for above.	Q2 2021
73	A2350	Train relevant staff in the new requirements (for above).	Q2 2021
74	A2360	Review of Mo-99 generator risk assessment covering operational & maintenance aspects with a particular focus on human factors.	Q4 2019

Continued – Enhancing Risk Management Processes – Recommendations 25, 32, 33, 37, 63, 64, 66, 67, 69, 72, 73, 74 and 75			
Rec #	Action ID	Action	Due Date (Calendar Quarter)
74	A2370	Review risk assessments for other ANSTO Health processes as above.	Q2 2021
75	A2380	Update relevant controlled documents to allow for the formal capturing and management of actions arising from the safety assessment and safety case process.	Q1 2020
75	A2390	Develop line two assurance process to monitor the timely and effective close-out of relevant actions.	Q1 2020
75	A2400	Train relevant staff and assurance providers in new requirements for above.	Q1 2020

Enhancing the Change Management Process in ANSTO Health – Recommendations 24, 36, and 62

Recommendations 24, 36 and 62 are related to how changes are assessed, managed, implemented and reviewed in ANSTO Health. ANSTO recognises the importance of a robust change management process, particularly, but not limited to, where activities have the potential to impact on nuclear and radiological safety. ANSTO Health has an existing change management (change control) process which will be enhanced to incorporate additional safety, quality and organisational considerations to ensure that all changes are implemented in an effective, consultative and compliant way.

Rec #	Recommendation	ANSTO Response
24	ANSTO Health implements a change management process for changes to systems, structures, people and process, taking due cognisance of quality, environmental, radiological, nuclear safety and workplace health and safety, together with the safety significance in accordance with applicable regulatory requirements. [Context from Review is ANSTO Health]	Agreed - ANSTO Health does have a change control process in place. The current change control process will be reviewed and the process enhanced to incorporate additional safety, quality and organisational considerations and address any gaps as part of a single system. Learnings from the ANSTO Health process will be shared across the organisation as appropriate. Status: Open
36	Workloads should be reviewed and monitored and effectively managed during organisational change and controls to manage workload documented in the change management plan. [Context from Review is ANSTO Health]	Agreed - ANSTO has a Change Management Toolkit which has been developed for use during organisational and workplace change. The use of this toolkit will be formally integrated into the enhanced ANSTO Health change management process. More generally ANSTO Health is undertaking actions relating to managing workloads and ensuring the workforce is sufficiently resourced. This is covered in the ANSTO Health Workforce Planning work program. Status: Open
62	The change management process within the nuclear facilities should take due account of the nuclear modification process (i.e. assessment of the impact of an inadequately conceived or executed project and secondary impacts) as well as the GMP requirements. [Context from Review is ANSTO Health]	Agreed - This is currently incorporated within the Safety Assurance process, and will be reviewed as part of the enhanced ANSTO Health change management process. The enhanced process will ensure that safety, quality, Good Management Practice (GMP) and organisational considerations are accounted for in the change management process. Status: Open

Continued – Enhancing the Change Management Process in ANSTO Health – Recommendations 24, 36, and 62			
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)		Key Objective 3: Our systems, processes and initiatives will be integrated and of high integrity, enabling, informing, measurement based and validated.	
Outcome		Changes in ANSTO Health are implemented in a consultative and compliant way.	
Critical Success Factors (How improvements will be measured & sustained.)		<ul style="list-style-type: none"> The potential impacts of change (including on workloads) are identified, assessed and appropriately managed by the enhanced change management process which incorporates safety, quality and organisational considerations. All practitioners deemed appropriately trained/knowledgeable in the revised change management process. This will be included on the training curricula for staff to ensure it is ongoing. Substantial compliance with the updated change management process (including the assessment of inadequately conceived or executed changes). This will be assessed by ongoing six monthly audits of changes in ANSTO Health. 	
ANSTO Officer		Group Executive Customer Advocacy and Value Chain	
Task Leader/s		Regulatory and Medical Affairs Manager	
Priority		High	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
24, 62	A2410	Workshop requirements with key stakeholders.	Q1 2019 (Complete)
24, 62	A2420	Review the existing change management procedure and update as required.	Q1 2019 (Complete)
36	A2430	Document how the ANSTO's Change Management Toolkit integrates with the ANSTO Health change management process.	Q1 2019 (Complete)
24, 62	A2440	Finalise updated change management process (including further consultation with workers – including staff in OPAL).	Q4 2019
24, 62	A2450	Develop training package and train all staff in the revised process.	Q4 2019
24, 62	A2460	Post implementation review and assessment.	Q4 2019
24, 62	A2470	Implement a six monthly audit/review process.	Q1 2020

Enhancing the WHS Management System – Recommendations 27 and 68		
<p>ANSTO has in place a Work Health and Safety Management System (WHSMS) which describes the risk management approach implemented at ANSTO to maintain a safe workplace. Documents in the system are managed in accordance with a defined controlled document process. Independent assessment, internal audits and management reviews are conducted at planned intervals to ensure the WHSMS is conforming to the requirements of relevant standards and is effectively implemented and maintained. ANSTO has recently reviewed and enhanced its WHSMS, and received ISO45001 Certification in December 2018.</p>		
Rec #	Recommendation	ANSTO Response
27	ANSTO undertakes a full review of its safety management system to ensure clarity and traceability and undertakes a review of the individual process documents to ensure that they meet the required quality standards.	<p>Agreed – ANSTO has recently completed a thorough review and update of its WHSMS during 2018 for ISO45001 certification. The current WHS management system is periodically reviewed and rationalised in consultation with key stakeholders across ANSTO as part of business-as-usual processes. ANSTO enacted process for managing documents in the WHSMS is defined in “Controlled Document Process” (AR-1041).</p> <p>ANSTO Health's process documents meet the required quality standards as demonstrated by maintaining ISO9001 (Quality Management System) certification.</p> <p>ANSTO's WHSMS provides clear links, through the specific standards and guides, to the relevant aspects of extant legislation.</p> <p>The level of familiarity necessary with regulatory requirements is dependent on the specific role. Workers are appropriately trained (including verification and refresher training) in the relevant regulatory requirements.</p> <p>Status: Open pending review and verification</p>
68	The relative roles of ALARA and ALARP should be made clear in the procedures and guidance.	<p>Agreed - The current procedures will be reviewed and any differences made clear. As Low As Reasonably Achievable (Societal and economic factors being taken into account) is applied by the IAEA guidance; As Low As Reasonably Practicable and So Far as Reasonably Practicable is the standard in the Australian WHS legislation (this is a legal standard that has been defined through legal precedent in the UK). ALARA and ALARP are essentially equivalent. The CEO of ARPANSA has stated that he would prefer that optimisation be the focus in risk reduction and hazard management. Procedures and definition documents will be updated.</p> <p>Status: Open</p>

Continued – Enhancing the WHS Management System – Recommendations 27 and 68			
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)		Key Objective 3: Our systems, processes and initiatives will be integrated and of high integrity, enabling, informing, measurement based and validated.	
Outcome		ANSTO maintains, and continuously improves a comprehensive, accessible and useable WHSMS that ensures compliance with all relevant national legislation and international standards.	
Critical Success Factors (How improvements will be measured & sustained.)		<ul style="list-style-type: none"> ANSTO's WHSMS is continuously reviewed and improved as part of business as usual processes. Demonstrated through ISO45001 Certification. ANSTO's WHS training continues to incorporate regulatory requirements as appropriate. The relative roles of ALARA and ALARP are clearly understood. This will be demonstrated by providing clear definition in ANSTO's WHSMS. 	
ANSTO Officer		Group Executive People, Culture, Safety & Security	
Task Leader/s		GM High Reliability	
Priority		Low	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
68	A2480	The current procedures for ALARA and ALARP will be reviewed and any differences made clear.	Q4 2019
68	A2490	Update definitions document in the WHS Management System.	Q4 2019

Identifying and Strengthening Safety Culture in ANSTO Health – Recommendations 16 and 17

ANSTO recognises that a well-documented and robust WHS Management System which aims to eliminate risks is only one part of a safe and healthy workplace. A genuine organisational commitment to treating safety as a priority is needed, demonstrated through the attitudes and behaviour of all workers. ANSTO has a strong focus on safety culture and in April 2018, prior to the Review, ANSTO commenced a High Reliability Review of Safety Culture in ANSTO Health. At the time of the Review the information had not been analysed, and hence a final report was not available to the Panel. ANSTO is using this review along with other existing measures (Safety Climate and Pulse surveys) to explore safety culture in the group and aid in continuous improvement programs. ANSTO will conduct further investigations into safety culture at suitable intervals, in line with the view of the Panel that “resurveying of this nature should not be undertaken for approximately two years after implementation of improvement programmes.”

Rec #	Recommendation	ANSTO Response
16	<p>ANSTO should seek opportunities to identify what the safety culture is rather than how good or bad it is through a combination of structured interviews with a selection of staff across the facility, observations of work at different times of the day, review and benchmarking of procedures and processes and investigation trending/analysis tools and findings.</p> <p>[Context from Review is ANSTO Health]</p>	<p>Agreed - A High Reliability Review of safety culture in ANSTO Health was undertaken in April 2018; raw data only was provided to the Panel at the time of the Review as the report was not finalised. This report has since been finalised, and ANSTO is working through the findings to drive continuous improvement towards our goal of safety being integral to everything we do. ANSTO will undertake further analysis of safety culture in ANSTO Health at suitable intervals. Additionally, safety climate and safety empowerment are and will continue to be periodically measured through ANSTO surveys and Safety Performance Indicators.</p> <p>Status: Open</p>
17	<p>ANSTO management, at all levels within the organisation, should consistently and openly demonstrate support and promote attitudes and behaviours that result in an enduring and strong safety culture.</p> <p>[Context from Review is ANSTO Health]</p>	<p>Agreed – ANSTO continues to support a strong safety culture and will review its current practices against a best practice model to drive continuous improvement amongst ANSTO management. A 360-degree appraisal process (covered in the response to recommendation #10), the implementation of a management walk around policy (covered in the response to recommendation #9) and the respectful application of independent technical challenge (covered in the response to recommendation #7) will aid this process.</p> <p>Status: Open</p>

Continued – Identifying and Strengthening Safety Culture in ANSTO Health – Recommendations 16 and 17			
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)		Key Objective 1: Our workers will be value driven, enabled, prepared, trained, aware and engaged.	
Outcome		Safety culture is embedded in all aspects of ANSTO operations and safety culture in ANSTO Health is continually explored and strengthened.	
Critical Success Factors (How improvements will be measured & sustained.)		<ul style="list-style-type: none"> The safety culture in ANSTO Health is examined and actions identified. This will be done periodically using a combination of tools (including repeating the recent High Reliability Review of Safety Culture, Safety Climate Surveys, and Pulse Surveys). Results of the safety culture examination will be shared at all levels of the group to drive continuous improvement. All levels of ANSTO management demonstrate an organisational commitment to treating safety as a priority. This will be measured through the safety culture identification tools referenced above and 360 degree appraisals. 	
ANSTO Officer		Group Executive People, Culture, Safety & Security	
Task Leader/s		GM High Reliability	
Priority		Medium	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
16	A2500	Finalise the report of the High Reliability Review of Safety Culture in ANSTO Health (this included interviews and workshops with staff, completion of surveys and analysis against current research).	Q2 2019 (complete)
16	A2510	Identification of an action plan from the High Reliability Review of Safety Culture in ANSTO Health.	Q4 2019
16	A2520	The process/methodology used for conducting the High Reliability Review of Safety Culture in ANSTO Health is reviewed and periodic reviews are scheduled.	Q2 2020
17	A2530	Review practices against a best practice model (Current research, IAEA, ARPANSA holistic guidelines, Safe Work Australia) to determine an ongoing program of work.	Q4 2020

Improving Incident Management – Recommendations 12, 13, 14, 15, 26 and 41

Recommendations 13, 14, 15, 26 and 41 relate to ANSTO’s incident management system, particularly around encouraging incident reporting, identifying root causes during investigations and sharing lessons learnt. ANSTO has a robust incident management system which includes the reporting of incidents, the investigation of incidents, the implementation of corrective actions to prevent recurrence, and the sharing of learnings from incident reports. The Review identified that “in the main incident and near miss reporting is being implemented correctly but that there are limited examples where this is less than optimal”. ANSTO recognises the vital importance of a strong incident management system to identifying hazards and to implementing controls to prevent the realisation of risks, and is focussed on ensuring that the incident management system is used to its fullest potential. ANSTO will improve its Incident Management system to strengthen the focus on organisational factors, include a reward and recognition process for value-adding incident reports, improve the sharing of lessons learnt and implement a positive investigation methodology to learn from when things go right despite challenging circumstances. ANSTO is committed to a Just Culture model, based on open and transparent reporting. ANSTO’s value of Trust + Respect, which was developed by ANSTO staff, is key to the successful implementation of this model. ANSTO values and trusts its staff and believes that they are committed to working safely and supporting each other. ANSTO is committed to continuous improvement in all its activities and views and open, honest and just reporting and investigation process is vital to drive this commitment.

Rec #	Recommendation	ANSTO Response
12	<p>ANSTO should adopt a no-blame policy in responding to serious incidents and reserve the disciplinary process for behaviour that has been identified as problematic but has not led to any specific incident or accident. [Context from Review is ANSTO Health]</p>	<p>Partially agreed - Safety is considered to be a shared responsibility, and the organisation expects everyone to be aware of their obligations for their own safety and the safety of others, and to be diligent in meeting these obligations, whilst accepting that ultimate responsibility for a safe working environment rests with the organisation. In safety-related investigations, ANSTO has adopted a “just culture” model, defined as “no blame based on full disclosure”. Full disclosure is deemed essential in moving beyond direct causes to identify root and contributory causes, particularly where human performance may have been a contributor. The aim is not to identify individuals, but to identify underlying causes for actions, which may be complex, learn from them in an open manner and provide appropriate rectification. ANSTO will continue to apply this process to safety-related events and will assess incidents on a case by case basis, only applying disciplinary processes to wilful or malicious violations following due process as defined in the Performance Management Process Procedure (AP-6901) and the ANSTO Enterprise Agreement (AG-5132). Additionally ANSTO is exploring a “restorative justice model” to support the key organisational value of Trust + Respect</p> <p>ANSTO will review the application of models such as James Reason’s “culpability tree” to support our Just Culture model.</p> <p>Status: Open</p>

Continued – Improving Incident Management – Recommendations 12, 13, 14, 15, 26 and 41		
Rec #	Recommendation	ANSTO Response
13	<p>ANSTO should ensure its incident investigations get to true root causes in the area of leadership and policy.</p> <p>[Context from Review is ANSTO Health]</p>	<p>Agreed - ANSTO provides investigation methodology training for line managers, Area Supervisors, Building Managers, Contractor Supervisors, Emergency Response Teams and other relevant employees (~400 staff trained). The methodology taught (Ishikawa) and the supporting documentation (AG-2375) prompt the investigator to consider leadership and policy as a causal factor. The methodology/training are regularly reviewed as part of ANSTO's business-as-usual processes, and the WHS team conducts periodic audits of incident investigation to determine whether the methodology has been applied correctly.</p> <p>The methodology and training will be reviewed and amended within the context of strengthening the focus on organisational factors.</p> <p>Status: Open</p>
14	<p>ANSTO needs to steer its reporting system in the right direction by identifying, celebrating and rewarding the most useful reports.</p>	<p>Agreed - ANSTO has a number of examples where staff members have been congratulated and thanked for submitting safety incident reports. This is seen as a valuable way of encouraging the reporting of incidents. ANSTO will review its existing employee reward and recognition scheme and consider how this can more formally be used to drive best practice in this area to encourage the reporting of precursor incidents i.e. incidents which seem of low consequence at the time but may have the potential to have resulted in more serious consequences. Additionally ANSTO Health will initiate a process of proactively seeking out incidents at toolbox talks and team meetings.</p> <p>Status: Open</p>
15	<p>ANSTO should place greater emphasis on routinely identifying the lessons contained in its incident database and communicating these lessons across the organisation including the collation, review and implementation of Learning from Experience, Safety Performance Indicators, Operational Excellence, Improvement Opportunities, Causal Analysis and sharing of best practice across the wider ANSTO audience.</p>	<p>Agreed - ANSTO has a strong emphasis in this area. For example: the CEO meets monthly to review incidents; safety alerts are distributed ANSTO-wide; identifying lessons learned is part of our formal investigation process; Incidents are reviewed at SAC and also by Safety Coaches; and Comcare reportable incidents are presented at the monthly Executive WHS meeting. ANSTO will review its processes in this area.</p> <p>Status: Open</p>

Continued – Improving Incident Management – Recommendations 12, 13, 14, 15, 26 and 41		
Rec #	Recommendation	ANSTO Response
26	ANSTO instigates a review of the GRC system for the reporting of incidents to verify the system is accessible to all ANSTO personnel. A formal process should be implemented and owned by the CEO for the review of incidents and near-misses/hits and formally rolled out across the site.	<p>Agreed - The GRC system is accessible to all workers. Every staff member can lodge an incident notification via the ANSTO Intranet. ANSTO has made training available to every worker on how to do this via an online module in the Learning Management System. Additional focus on incident reporting in ANSTO Health has resulted in a significant increase in the number of incidents reported.</p> <p>ANSTO has multiple processes for reviewing incidents:</p> <ul style="list-style-type: none"> - The CEO reviews incidents monthly in a formal meeting with the Group Executive People, Culture, Safety & Security, the WHS Performance Reporting Analyst and a Safety Coach. - The WHS Performance Reporting Analyst produces a monthly summary of Incidents which is accessible by all staff. - The CEO meets with all safety and compliance leads fortnightly to ensure transparency in respect of all incidents and risks. - The WHSE Executive Committee reviews all Comcare and ARPANSA reportable incidents on a monthly basis. - Safety Coaches review all incidents in their area with their General Managers and Group Executives. <p>Status: Open pending review and verification</p>
41	ANSTO Health should learn by exploring when things go right in "safety successes" despite unexpected and challenging circumstances. [Context from Review is ANSTO Health]	<p>Agreed - A project (Safety II) to implement the findings from positive investigations is underway and will be piloted in ANSTO Health. This will allow ANSTO Health to capture good practice and to identify aspects which make a task difficult.</p> <p>Status: Open</p>

Continued – Improving Incident Management – Recommendations 12, 13, 14, 15, 26 and 41			
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)		Key Objective 2: Our workplaces will be managed on a risk informed basis, fit for purpose, reviewed, maintained, compliant and cover all areas where our people work. Key Objective 3: Our systems, processes and initiatives will be integrated and of high integrity, enabling, informing, measurement based and validated.	
Outcome		All workplace activities are reviewed in line with the STAR principle. All hazards, safety and operational events are reported, appropriately investigated, and actioned. Events are viewed as opportunities to learn and to identify contributory factors in a holistic manner and in line with ANSTO’s value of Trust + Respect. Learnings from this process are shared through the organisation in a timely manner to reduce the impact to workers.	
Critical Success Factors (How improvements will be measured & sustained.)		<ul style="list-style-type: none"> • ANSTO demonstrates the enactment of its Just Culture policy. This will be done through the application of an appropriate model which is periodically reviewed (including via surveys to assess the perception of workers) and improved. • Safety incident investigations identify (where appropriate) root causes at the organisational level. This will be assessed by the High Reliability team, who will conduct periodic audits of incident investigations. • Precursor incidents are identified and reporter’s acknowledged. The number of precursor incidents which are recognised and rewarded will be tracked as a Safety Performance Indicator (SPI) by each group’s Safety Coach. Additionally the ratio of near hits to impact incidents will be monitored quarterly in ANSTO Health (and trended) as a measure of whether precursor’ incidents are generally being reported. • Lessons learnt information is identified for all incidents of moderate severity rating and above and lessons learnt information accessible in GRC. This will be tracked via annual auditing of the GRC database to check the lessons learnt section of incidents of moderate severity rating and above and the development/implementation of a report in GRC allowing users to view this lesson learnt information. • The GRC system for incident reporting system is accessible by all staff and a formal process for the review of incidents is implemented. This will be demonstrated through training records and incident reporting statistics. • Implementation of a positive investigation methodology process in ANSTO Health. Evidence of utilisation will be assessed by reviewing and reporting on the number of investigation reports conducted. A review of the process and its utilisation will be conducted after one year. 	
ANSTO Officer		Group Executive People, Culture, Safety & Security	
Task Leader/s		General Manager High Reliability	
Priority		Medium	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
12	A2540	Review the application of an appropriate model e.g. James Reason’s “Culpability Tree” to support ANSTO’s Just Culture approach.	Q4 2020
13	A2550	The investigation methodology and training will be reviewed and amended within the context of strengthening the focus on organisational factors.	Q2 2020
14	A2560	A WHS Guide is to be developed and implemented in the WHSMS that includes criteria for value-adding incident investigation reports e.g. Compliance with process, causes identified, documented actions addressing Hierarchy of Controls and lessons learnt.	Q3 2020

Continued – Improving Incident Management – Recommendations 12, 13, 14, 15, 26 and 41			
Rec #	Action ID	Action	Due Date (Calendar Quarter)
14	A2570	GMs in conjunction with their Safety Coaches to identify value-adding incident investigations at their safety coach meeting based on the set criteria.	Q3 2020
15	A2590	Develop a process and implement a report based in GRC where Lessons Learnt are detailed. - A Quarterly Safety Alert/Newsletter including lessons learnt, reported incidents, examples of value adding investigations. Quarterly report generated by WHS.	Q1 2020
15	A2590	Implement a process for the more frequent generation of Safety Alerts focused on lessons learnt from radiological incidents.	Q1 2020
41	A2600	Develop a positive investigation methodology and pilot in ANSTO Health.	Q4 2020

Modifications to the Safety Assurance Process – Recommendations 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56 and 58

ANSTO currently operates a safety assurance process, through a Safety Assurance Committee (SAC) with an approving function, which provides assurance to the CEO that activities undertaken at ANSTO comply with the ANSTO Work Health and Safety Management System and requirements of the WHS Act and Regulations and the ARPANS Act and Regulations, with regards to risk management. Prior to the Independent Review, ANSTO had commenced an internal review and revision process of its safety assurance approach. The Panel made a number of recommendations on the safety assurance process, which ANSTO is in the process of incorporating into the revised assurance model. The updated safety assurance process moves away from an approval process to an assurance process. There will be greater visibility and ownership of safety risks for senior leaders, managers and the executive, with the level of impact and risk determining the management level for acceptance of safety risks in the proposed activities. An independent escalation process to the wider ANSTO Executive/CNO will be maintained to provide an enterprise level assurance process. Impact of potential events will be a primary consideration, irrespective of likelihood, in evaluation of the activity. The revised process will ensure that the fundamental principle that safety rests with all workers is maintained, by ensuring that safety hazards and controls are identified and made visible to implementers, line management and subject matter experts.

Rec #	Recommendation	ANSTO Response
45	The arrangements for the assurance and due process associated with Category B proposals should be more clearly set out and implemented, including the terms of reference for the sub-committee to the SAC and SAC has at least a retrospective (perhaps quarterly) review of all Category B proposals as part of the auditing function.	<p>Agreed - The SAC process has been under review for revision since February 2018. The scope of this item will be incorporated in this project, which will be subject to review by ARPANSA before full implementation.</p> <p>The revised safety assurance process will focus less on the categorisation of the modification at the start of the process. The focus will shift to the identification and control of hazards holistically and appropriately, and the output of the process will determine the classification of the change i.e. once controls have been optimised.</p> <p>Status: Open</p>
46	All changes which have a potential impact on nuclear safety (physical and organisational) should be independently reviewed in terms of categorisation through an appropriate independent authority such as the CNO or a change control committee.	<p>Agreed - The SAC process has been under review since February 2018. The scope of this item will be incorporated in this project, which will be subject to review by ARPANSA before full implementation.</p> <p>Status: Open</p>
47	The safety assurance process should be based only on inherent risk (regardless of the residual risk claimed) as this allows the appropriate level of challenge at all levels and stages of the safety assessment process.	<p>Agreed - This is essentially the case now. The SAC process focuses on the hazards and controls to ensure that the inherent risk has been appropriately addressed. This will be formally addressed in the revised safety assurance process.</p> <p>Status: Open</p>
48	The safety assurance (both nuclear/radiological and conventional) and risk management/acceptance processes should be integrated within the management process at "arrangements" level rather than as guidance as they all form part of the mandatory assurance and due process for the organisation.	<p>Agreed - All new documentation describing the safety assurance process are procedures and are mandatory.</p> <p>Status: Open</p>

Continued – Modifications to the Safety Assurance Process – Recommendations 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56 and 58		
Rec #	Recommendation	ANSTO Response
49	The SAC arrangements should clarify who is the licence holder and who the committee is formally advising and who in the organisation approves Category A/B activities for implementation such that it is made clear given that safety is actually an executive management responsibility.	<p>Agreed - The revised safety assurance process is designed to ensure that the licence nominee (or GM in terms of non-licenced facilities) is the proponent, and that this individual accepts that the ultimate responsibility for safety within their line accountability rests with them.</p> <p>Independent challenge is maintained through the CNO who endorses or rejects any proposals for new or changed activities with a significant nuclear or radiological safety implication prior to implementation. Independent challenge is also implemented via the Executive WHSE committee, the make-up of which includes both Executives and safety and Radiation Protection subject management experts.</p> <p>Where new or changed activities have less significant impacts on safety, safety matter experts provide advice and appraisal using the hierarchy of controls and a graded approach.</p> <p>Ultimate responsibility for safety is clearly understood to be an executive management responsibility. Final acceptance of activities without significant nuclear or radiological safety issues is by Group Executives for higher level risks and General Managers/Nominees, for lower level of risks.</p> <p>Status: Open</p>
50	ANSTO should examine how to ensure that true independence between authors and reviewers can be maintained for the "goodness" of the independent challenge function.	<p>Agreed - The SAC process as currently operated has relied on the objective independence of the subject matter experts who act as assessors. The effectiveness of the independent challenge is evidenced by the robust and comprehensive assessment documents produced by the assessors.</p> <p>Independence of reviewers is carefully maintained in the operation of the safety assurance process within the constraints faced by an organisation of ANSTO's size. Personnel who have advised on design or prepared or reviewed documents for an ANSTO client cannot be an assessor for a submission. This requirement is defined in the updated Safety and Reliability Assurance process.</p> <p>The CNO role will provide independent challenge to the proposal and to the assessment to ensure that objectivity is maintained through the approval process.</p> <p>ANSTO will consider how the current culture of independent challenge can be formalised.</p> <p>Status: Open</p>

Continued – Modifications to the Safety Assurance Process – Recommendations 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56 and 58		
Rec #	Recommendation	ANSTO Response
51	The arrangements for deputising for named members of the SAC should be more formally recorded including demonstration that the nominated deputies are suitably qualified and experienced.	Agreed - Deputation for the Chief Nuclear Officer's role will be determined in the proposed safety assurance process. In the revised process, remaining committee members as described in the current process will not need deputising as the committee will be dissolved; their expertise will be utilised in other ways. Status: Open
52	Regulatory interactions should be included within the assurance and due process arrangements level documents.	Agreed - The SAC process has been under review since February 2018. The scope of this item will be incorporated in this project, which will be subject to review by ARPANSA before full implementation. Status: Open
53	ANSTO should take forward changes to the safety assurance process including a full programme of engagement with the businesses and with ARPANSA to ensure that all stakeholders are content with any revised arrangements and that these arrangements are formally documented.	Agreed - This process is underway. Approximately 75 relevant persons within the organisation have already been consulted. The revised process will be presented to ARPANSA for review prior to implementation. Status: Open
54	The CNO (or SAC) should initiate a retrospective audit of all changes/modifications over a pre-determined time period (e.g. 3 years) to identify whether there are changes that have been under-categorised.	Agreed - This is not considered to be a significant risk, given the support to changes has included input from subject matter experts in safety disciplines who were very familiar with the SAC categorisation process. The CNO will scope and implement a retrospective audit. Status: Open
55	ANSTO should investigate further the possibility of including Reg. 51 submissions within the definition of Category A for inherent risk.	Partially Agreed - Not all Reg. 51 / Section 63 submissions have this characteristic, as some are eliminating inherent risks. The new SAC process will clearly define the safety assurance requirements for Reg. 51 / Section 63 changes, taking into account the characteristics of the change. Status: Open
56	ANSTO should examine the possibility of a differentiated categorisation system to define management and organisational changes and that the safety assurance and due process arrangements for organisational changes are set out and fully documented.	Agreed - ANSTO has a well-documented change management process which will be reviewed in relation to safety assurance. The revised assurance process requires consideration of the impact of organisational change. Status: Open
58	The arrangements for the review and update of safety assessments and safety cases should be set out formally and that the status of this work forms part of the annual reporting cycle to the executive for each nuclear facility on the site.	Agreed - The SAC process has been under review since February 2018. The scope of this item will be incorporated in this single project, which will be subject to review by ARPANSA before full implementation. Status: Open

Continued – Modifications to the Safety Assurance Process – Recommendations 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56 and 58			
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)		Key Objective 2: Our workplaces will be managed on a risk informed basis, fit for purpose, monitored, maintained and compliant. Key Objective 3: Our systems, processes and initiatives will be integrated and of high integrity, enabling, informing, measurement based and validated.	
Outcome		All modifications, new activities, safety cases and changes undergo proportionate review.	
Critical Success Factors (How improvements will be measured & sustained.)		<ul style="list-style-type: none"> Safety hazards identified and appropriately controlled to ALARP/ALARA. Measured through compliance monitoring of process and effectiveness of implemented controls. Outcomes of safety screening reviews will be provided to operating groups with the aim of enhancing the process's capacity to demonstrate a safe operating environment. 	
ANSTO Officer		Chief Executive Officer	
Task Leader/s		Safety Assurance and Compliance Manager (SA&C)	
Priority		High	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
45	A2610	Incorporate the following requirements into the safety assurance process: <ul style="list-style-type: none"> Safety screening to determine if a full safety control evaluation is required based on inherent risk and/or inherent impact. Provide detailed guidance on completing the safety screening. Safety screenings to be signed off by the section manager. Safety screenings will be scrutinised following a graded approach to determine accuracy and suitability. All safety screenings will be centrally reported. 	Q4 2019
46	A2620	The review of the categorisation of nuclear (including radiological) modifications will be screened and verified by the Chief Nuclear Officer (CNO) or the Reactor Assessment Committee (RAC), as appropriate for the modification.	Q4 2019
47	A2630	Record the following in the safety control evaluation: <ul style="list-style-type: none"> inherent potential impact (deterministic) the inherent risk, for risks of impact moderate or above, and risk medium and above controls in place (defence in depth, redundancy, diversity, single points of failure, potential common mode failures) residual risk This will highlight the controls used to control the potential consequence, and if the controls are adequate.	Q4 2019
48	A2640	Change draft documents from ANSTO Guides to ANSTO Procedures to reflect that the process is mandatory.	Q4 2019

Continued – Modifications to the Safety Assurance Process – Recommendations 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56 and 58			
Rec #	Action ID	Action	Due Date (Calendar Quarter)
49	A2650	Incorporate the following requirements into the proposed safety assurance process: <ul style="list-style-type: none"> The Licence Nominee (or General Manager/Platform Leader for non-licenced facilities) will be accepting safety risks and consequences for activities with medium inherent risks and escalation to the relevant executive depending on residual impacts and risks. Independent review to be undertaken for activities where there is a regulatory impact. Activities which do not reach the consequence or risk threshold in the screening process screened (Category B activities in the current process) to be approved by the section manager, prior to sending to SA&C Manager for monitoring. Responsibilities to be clearly listed in procedure. 	Q4 2019
50	A2660	Incorporate the following requirement into the documented safety assurance process: <ul style="list-style-type: none"> Safety experts assessing an activity are to be independent of the activity being assessed and will have not provided advice during the evaluation of the activity for hazards and controls. 	Q4 2019
51	A2670	Determine deputation for the Chief Nuclear Officer's role in the proposed safety assurance process.	Q3 2019
52	A2680	Regulatory interactions to be included within the safety assurance process arrangements documents. This will predominantly relate to the requirement for prior regulatory approval for all Section 63 modifications.	Q4 2019
53	A2690	Consult with all stakeholder groups, including responsible officers, SAC committee, SAC assessors and the Central Safety Consultative Forum.	Q2 2019
53	A2700	Finalise documenting the process (currently in the advanced stages, with preliminary reviews complete), discuss the proposed process with ARPANSA and submit a Section 63 change request.	Q4 2019
53	A2710	Provide training for stakeholder groups as part of implementation.	Q4 2019
54	A2720	Conduct a retrospective audit via an information request to relevant line function. Develop action plan to address activities which are identified in the audit as under-categorised.	Q4 2019
55	A2730	Clearly define the application of safety assurance process requirements to Section 63 changes within the new process.	Q4 2019
56	A2740	Review the revised safety assurance process and incorporate organisational changes in line with the ANSTO Change Management Toolkit.	Q4 2019
58	A2750	Incorporate following requirement into revised safety assurance process: Explicitly require update of safety analysis reports and associated safety assessments and risk assessments at least every five years.	Q4 2019
58	A2760	Update the guidance on preparing the safety analysis report/safety assessments to include a review period	Q2 2020

Workforce Planning in ANSTO Health – Recommendations 20, 21, 22, 34, 35, 85

The review identified the need to ensure that departments are suitably resourced and that staff have clearly defined accountabilities, behavioural competencies and responsibilities. ANSTO has existing workforce planning systems in place. ANSTO is in the process of undertaking a value chain assessment and workforce planning exercise in ANSTO Health which will identify any resource shortfalls and opportunities for efficiency gains. The exercise will ensure that ANSTO Health has a sufficiently trained and resourced workforce. The response to these recommendations is also linked to the previous task group around the identification and maintenance of the nuclear baseline.

Rec #	Recommendation	ANSTO Response
20	ANSTO should consider the current resourcing situation for those who have responsibility for both nuclear and conventional safety and the hazards it brings and that the risks to personnel due to tiredness, fatigue and physical condition should be addressed as a matter for urgency. [Context from Review is ANSTO Health]	Agreed - A number of additional staff have joined ANSTO Health recently including; three additional production operators, one validation associate and one GMP I&C engineer. Additionally, a number of staff from elsewhere in ANSTO have been deployed to ANSTO Health on an interim basis. A value chain assessment exercise has commenced. This will determine the inputs to a detailed workforce plan which will ensure an appropriately resourced and competent workforce. Status: Open
21	Senior management and/or responsible person(s) should conduct an assessment of their individual department/section and identify posts required to perform each activity. [Context from Review is ANSTO Health]	Agreed - A value chain assessment exercise has commenced for ANSTO Health. This will determine the inputs to a detailed workforce plan which will ensure a sufficiently resourced and competent workforce. Status: Open
22	Each post should have a Role and Competency Profile (RCP) which includes clearly defined behavioural competencies, accountabilities, ownership and responsibilities. Senior management should determine the competencies and resource necessary to carry out the activities of the organisation safely and shall provide them. [Context from Review is ANSTO Health]	Agreed - Each post currently has a Position Description (PD), which is a RCP by another name. PDs will be reviewed and specific competencies and accountabilities reassessed as part of the development of a detailed workforce plan. Change management required for this will be appropriately managed. It should also be noted that some aspects of this recommendation (e.g. behavioural) are contained outside of the PDs (for example, in annual performance appraisals, the Enterprise Agreement and the Code of Ethics) and may also form part of training requirements and regulatory requirements in ANSTO Health. Status: Open
34	Workloads should be designed, as far as is reasonably achievable, to be manageable, that is without risk of harm during normal operating conditions and, in the event of crises and emergencies, to be as low as reasonably achievable/practicable. [Context from Review is ANSTO Health]	Agreed - A value chain assessment exercise has commenced. This will determine the inputs to a detailed workforce plan which will ensure a sufficiently resourced and competent workforce. Status: Open
35	Staffing issues should be addressed to ensure all staff can take leave accordingly, without placing undue pressure on other employees. [Context from Review is ANSTO Health]	Agreed - A value chain assessment exercise has commenced. This will determine the inputs to a detailed workforce plan for ANSTO Health which will ensure a sufficiently resourced and competent workforce. Status: Open

Continued – Workforce Planning in ANSTO Health – Recommendations 20, 21, 22, 34, 35, 85			
Rec #	Recommendation		ANSTO Response
85	ANSTO needs to increase the number of operational staff who are certified to perform aseptic procedures, which the review team acknowledges is a very arduous process. At present, no scheme is in place to provide incentives for operators to achieve this certification which may be one solution that could be considered to achieve meeting adequate staffing levels. [Context from Review is ANSTO Health]		Agreed - ANSTO believes that the issue relates to training and the time required to achieve and maintain validation, rather than the incentives offered. However, this will be considered further as part of the value chain assessment and workforce planning exercise in ANSTO Health. Status: Open
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)	Key Objective 1: Our workers will be value driven, enabled, prepared, trained, aware and engaged.		
Outcome	Staffing levels in ANSTO Health are adequate to perform the required activities safely. Sustainably and compliantly; i.e. resource levels are planned based on the best available knowledge of current and future demand. This is integrated with key internal supply chain resources such as AMMSG (maintenance), RPS (Health Physics) and SSR (safety analysis).		
Critical Success Factors (How improvements will be measured & sustained.)	<ul style="list-style-type: none"> The workforce is suitably resourced and competent to carry out the current and predicted future required activities safely. Once the workforce plan is implemented, actual workloads will be reviewed and adjusted appropriately. Workloads will be monitored and reviewed by a number of means for example, monitoring the utilisation of recreational leave and monitoring the trend in overdue issues (e.g. actions and investigations) in Building 23. Actions to address any findings will be implemented. 		
ANSTO Officer	Group Executive Customer Advocacy and Value Chain		
Task Leader/s	Program Manager Value Chain Improvement		
Priority	High		
Rec #	Action ID	Action	Due Date (Calendar Quarter)
Phase 1			
Identification and modelling phase			
20, 21	A2770	Understand and document the Customer Requirement – Demand (Cycles required for workforce analytics).	Q4 2018 (Complete)
20, 21	A2780	Understand any constraints.	Q4 2018 (Complete)
20, 21	A2790	Capture and model all planning assumptions – test the assumptions e.g. workload spread.	Q1 2019 (Complete)
36	A2800	Complete the PCSS Change Management Toolkit.	Q4 2018 (Complete)

Continued – Workforce Planning in ANSTO Health – Recommendations 20, 21, 22, 34, 35, 85			
Rec #	Action ID	Action	Due Date (Calendar Quarter)
As-is (High Level)			
20, 21	A2810	Production Building 23 Facilitated Workshop.	Q4 2018 (Complete)
20, 21	A2820	Production Building 54 Facilitated Workshop.	Q4 2018 (Complete)
20, 21	A2830	QC\QA\Validation Activity Building 23 Data Collection.	Q4 2018 (Complete)
20, 21	A2840	QC Activity Building 2 Data Collection.	Q1 2019 (Complete)
20, 21	A2860	Capture all operational needs (e.g. CAPA's, GRC, Learning Management System (LMS) Monitoring, MGT tasks, Leave, LMS Training, Documentation, QN's, Unplanned average assumptions, Management Workarounds, Projects, SME activity, CI, CM, Technical writing).	Q1 2019 (Complete)
20, 21	A2870	Capture and understand the backlog (not BAU) effort to regain normal activity (concentrated effort to return to normal should be modelled).	Q1 2019 (Complete)
20, 21	A2880	Capture and model all planning assumptions – test the assumptions e.g. workload spread.	Q2 2019 (Complete)
20, 21	A2890	Production Building 88 change impacts.	Q3 2019
Workload analysis			
21, 34, 35, 85	A2900	Interim Workforce Model; review and incorporate any learnings from OPAL Workforce Model.	Q2 2019 (Complete)
-	A2910	Source Workforce Analyst.	Q1 2019 (Complete)
34, 35	A2920	Develop Workforce optimisation analytics model.	Q2 2019 (Complete)

Continued – Workforce Planning in ANSTO Health – Recommendations 20, 21, 22, 34, 35, 85			
Rec #	Action ID	Action	Due Date (Calendar Quarter)
20, 21, 22	A2930	Review Learning Management System backlog.	Q4 2018 (Complete)
22, 34, 35	A2940	Identify accountabilities, ownership and responsibilities for management team.	Q1 2019 (Complete)
Model alternate scenarios 'to-be'			
34, 35	A2950	Document new Business Operating Model.	Q1 2019 (Complete)
34, 35	A2960	Model Building 88 scenarios.	Q3 2019
34, 35	A2970	Model future strategic abilities to flex up and down for demand.	Q3 2019
Regulatory and SAC			
20, 21, 22, 34, 35, 85	A2980	Update any process documentation impacted by 'to-be'.	Q4 2019
20, 21, 22, 34, 35, 85	A2990	Submit SAC paperwork and necessary regulatory applications.	Q4 2019
Review and monitor			
34, 35	A3000	Setup analytics to monitor changes' effectiveness.	Q4 2019
34, 35	A3010	Review analytics.	Q4 2019
34, 35	A3020	Refine model if required.	Q4 2019
34, 35	A3030	Determine any reporting requirements from ANSTO Enterprise (Ae) or other areas.	Q4 2020

Continued – Workforce Planning in ANSTO Health – Recommendations 20, 21, 22, 34, 35, 85			
Rec #	Action ID	Action	Due Date (Calendar Quarter)
Phase 2			
Review skills and competency model			
21	A3040	Identify roles.	Q4 2019 (Complete)
22	A3050	Gap analysis of training.	Q4 2019
22	A3060	Identify skills and competencies.	Q4 2019
22	A3070	Training needs analysis.	Q4 2019
22	A3080	Baseline competencies.	Q1 2020
22	A3090	Refine competency program.	Q3 2020
21, 22	A3100	Undertake gap analysis in PDs.	Q3 2020
21, 22	A3110	Update PDs.	Q1 2021
21, 22, 36	A3120	Undertake regulatory documents for changes.	Q2 2021

Appendix Three: Task Assignments

Recommendation 2			
Rec #	Recommendation		ANSTO Response
2	ANSTO senior management commits to regular engagement, dialogue and communication with ANSTO Health staff regarding future projects. [Context from Review is ANSTO Health]		Agreed - ANSTO currently delivers communications on future projects through a number of means, including: periodic ANSTO-wide Staff Forums; daily intranet updates to all staff; "Week in Review" emails sent out by ANSTO Group Executive; and General Managers and bi-monthly Manager Forums. Additionally, ANSTO Health undertakes quarterly "Celebrate Success" forums to highlight achievements and upcoming projects. The frequency, content and attendance of current communication forums will be assessed, and the focus on updates with regards to a new facility will be strengthened. Status: Open
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)		Key Objective 1: Our workers will be value driven, enabled, prepared, trained, aware and engaged.	
Outcome		Increased awareness by staff in ANSTO Health with regards to ANSTO's strategy and future projects involving Building 23.	
Critical Success Factors (How improvements will be measured & sustained.)		<ul style="list-style-type: none"> ANSTO Health staff are more aware of any future projects involving Building 23. Demonstrated through increased and improved communication (via multiple channels). 	
ANSTO Officer		Group Executive Customer Advocacy and Value Chain	
Task Leader/s		General Manager ANSTO Health	
Priority		Low	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
2	A4000	Core plans, safety and status of key initiatives and projects discussed at monthly management meeting.	Q4 2019

Continued – Recommendation 2			
Rec #	Action ID	Action	Due Date (Calendar Quarter)
2	A4010	Quarterly staff meetings in ANSTO Health to include an update on business strategy and medium/long term projects which will be maintained as a reference for all staff to access.	Q1 2019 (Complete)
2	A4020	Conduct an "end of year" review as to the effectiveness of the improved communication strategy and revise as required.	Q4 2019

Recommendation 4			
Rec #	Recommendation		ANSTO Response
4	OPAL management and staff are consulted and involved in the process of identifying and implementing any improvements within ANSTO Health where their procedures, training and experience is relevant. [Context from Review is ANSTO Health]		Agreed - The ANSTO Health Training Model Project was commenced in August 2018 and has engaged OPAL to incorporate a best practice approach to training and education. Additionally, OPAL staff are being consulted as part of other improvement actions being undertaken in ANSTO Health where relevant; including, maintenance planning/strategies, workforce planning and change management. Status: Open
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)		Key Objective 1: Our workers will be value driven, enabled, prepared, trained, aware and engaged. Key Objective 3: Our systems, processes and initiatives will be integrated and of high integrity, enabling, informing, measurement based and validated.	
Outcome		Increased sharing of lessons learnt in particular between OPAL and ANSTO Health.	
Critical Success Factors (How improvements will be measured & sustained.)		<ul style="list-style-type: none"> Learnings and best practice from OPAL are incorporated into ANSTO Health documentation, engineering practices and training; these will be shared with the wider organisation as applicable. 	
ANSTO Officer		Group Executive Customer Advocacy and Value Chain	
Task Leader/s		General Manager ANSTO Health	
Priority		Low	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
4	A2440 A2900	Other actions related to this task (Incorporating OPAL learning into the ANSTO Health Change Management Process and Workforce Plan)	Q4 2018 (complete)
4	A4030	Consult with Reactor Operations Training Coordinator to identify best practice improvements in training. (Part of the ANSTO Health Training Model Project)	Q4 2018 (Complete)
4	A4040	Review Reactor Operations documentation to assess opportunities for improvement in the ease of understanding, implementation and training.	Q1 2019 (Complete)
4	A4050	Six month secondment of engineer from OPAL to contribute to asset management and systems in ANSTO Health.	Q3 (2019) (complete)

Continued - Recommendation 4			
Rec #	Action ID	Action	Due Date (Calendar Quarter)
4	4060	Training specialist and coordinator (ANM and ANSTO Health) to standardise training delivery/materials and align with best practice from OPAL	Q4 2020

Recommendation 6		
Rec #	Recommendation	ANSTO Response
6	<p>ANSTO should appoint an executive manager for safety who has nuclear competence and experience.</p>	<p>Partially Agreed - ANSTO's plans and arrangements, governance and risk frameworks and operational settings achieve substantially the same outcome. ANSTO has a suitably qualified and experienced Chief Nuclear Officer (CNO) who manages the independent assurance arrangements, a Group Executive People, Culture, Safety & Security (PCSS), a General Manager of High Reliability, and subject matter experts who can cover the scope of this proposal.</p> <p>ANSTO previously had an executive level position for safety, most recently as the General Manager, Safety, Environmental and Radiological Assurance (SERA). This division had previously operated as a policeman, which is not in line with modern safety practice. Responsibility and accountability for safety must lie with the line function responsible for the relevant activities. The safety related subject matter experts must provide the responsible manager with authoritative advice as to whether they are complying with their statutory responsibilities and also have a route for escalating potential safety related risks, which may not be being dealt with appropriately, to the executive level. This was previously accomplished through the General Manager, SERA, and is now achieved through the Group Executive for People, Culture, Safety & Security and the Chief Nuclear Officer.</p> <p>The presence of a Safety division had the potential to create the impression that safety was the responsibility of this division, rather than resting with the line function. This was the driver behind the divesting of safety from a single division and vesting the responsibility with the individual line function, supported by suitably qualified and experienced subject matter experts to provide an advisory and assurance function.</p> <p>This positioning of safety responsibilities makes it clear that the respective line function are to balance the benefits of activities undertaken with hazards, risks and controls around those activities in a conservative manner i.e. that benefit realisation and risk mitigation are key accountabilities of the leadership, individually and collectively. This responsibility aligns with the principles of radiological protection established in ICRP 26 (1977) through to the present, namely:</p> <ul style="list-style-type: none"> (a) no practice shall be adopted unless its introduction produces a positive net benefit; (b) all exposures shall be kept as low as reasonably achievable, economic and social factors being taken into account; and (c) the dose equivalent to individuals shall not exceed the limits recommended for the appropriate circumstances by the Commission. <p>With respect to nuclear and radiological safety, the scope of the ARPANS Act, the independent challenge function is provided through the Chief Nuclear Officer. This role reports directly to the CEO, acting as a technical authority/subject matter experts for nuclear/radiological safety and assurance. Given this position within the organisation, the CNO has the full mandate of the CEO to challenge (appropriately) at all levels of the organisation up to and including the Executive and CEO. In creating the role, the CEO specifically gave the CNO the mandate to go above the Executive directly to the Chair of the Board if they felt that their concerns were not being listened to or addressed by the Executive. On this basis, the CNO has at least the same authority as the Executive, if not greater.</p> <p>The review report identifies that many high hazard/nuclear organisations have an executive/director of safety. However, most of these organisations are far larger and more diverse than ANSTO, requiring such a role to maintain accountability across geographically and activity diverse portfolios.</p> <p>Status: Open pending review and verification</p>

Continued – Recommendation 6	
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)	<p>Key Objective 2: Our workplaces will be managed on a risk informed basis, fit for purpose, reviewed, maintained, compliant and cover all areas where our people work.</p> <p>Key Objective 3: Our systems, processes and initiatives will be integrated and of high integrity, enabling, informing, measurement based and validated.</p>
Outcome	ANSTO decisions at the Executive level are made with the underpinning value of Safe. Secure. Sustainable. through a process of respectful and independent challenge as appropriate.
Critical Success Factors (How improvements will be measured & sustained.)	<ul style="list-style-type: none"> Decisions at the executive level appropriately balance the benefits of activities undertaken with hazards, risks and controls around those activities in a conservative manner, and are subject to independent challenge.
ANSTO Officer	Chief Executive Officer
Priority	Medium

Recommendation 7			
Rec #	Recommendation		ANSTO Response
7	ANSTO needs to reflect further on how it deals with its licence holders and other authorized persons in terms of technical challenge. [Context from Review is ANSTO Health]		Agreed - The role of technical experts/subject matter experts and those in statutory positions is both valued and respected within ANSTO. ANSTO believes that everyone must be open to respectful, independent challenge, and will reflect on how this challenge should be adopted so that both parties feel that they have been respected and the best outcome for ANSTO and its employees is achieved. Status: Open
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)		Key Objective 1: Our workers will be value driven, enabled, prepared, trained, aware and engaged.	
Outcome		Independent challenge is implemented in a respectful way.	
Critical Success Factors (How improvements will be measured & sustained.)		<ul style="list-style-type: none"> All parties feel respected during instances of independent challenge. This will be assessed by seeking feedback from instances of independent challenge which will feed into a guide/framework (once part of the WHSMS this will be subject to routine review). 	
ANSTO Officer		Group Executive Customer Advocacy and Value Chain	
Task Leader/s		General Manager ANSTO Health	
Priority		Low	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
7	A4070	Feature the importance of independent challenge and respectful implementation at quarterly staff meeting. Consider including this information into a guide/framework.	Q4 2019

Recommendation 9			
Rec #	Recommendation		ANSTO Response
9	ANSTO should introduce a carefully considered walk-around policy and train its managers in how to do this effectively. [Context from Review is ANSTO Health]		Agreed - The organisation is in the process of implementing a structured approach to "management by walking around" (MBWA) to increase the visibility and the involvement of senior managers beginning with the ANSTO Executive. This will be cascaded down through the management structure and include targets which will be monitored as part of monthly KPI's. This will further open up lines of communication between ANSTO's senior managers and other levels of the organisation. Status: Open
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)		Key objective 1: our workers will be value driven, enabled, prepared, trained, aware and engaged.	
Outcome		Open and honest communication between all levels of the organisation, allowing proportionate and informed decision making based on accepted data.	
Critical Success Factors (How improvements will be measured & sustained.)		<ul style="list-style-type: none"> Increased visibility and involvement by ANSTO Executive. This will be measured against MBWA KPIs which are periodically reviewed. 	
ANSTO Officer		Group Executive Transformation & Engagement	
Task Leader/s		Group Executive Transformation & Engagement	
Priority		High	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
9	A4080	Develop an implementation plan for a management walk-around policy (this will include consultation and feedback from a broad range of staff and approval via ANSTO Executive).	Q3 2019
9	A4090	Implementation of the walk-around policy at ANSTO Executive level.	Q4 2019
9	A4100	ANSTO Health will implement a structured approach to "management by walking around" (MBWA). This will include targets that are cascaded throughout the group and monitored as part of the monthly KPIs, and a training package for managers.	Q4 2019

Recommendation 10			
Rec #	Recommendation		ANSTO Response
10	ANSTO should consider introducing 360-degree appraisals for its senior staff to ensure that the voice of subordinates is heard.		<p>Agreed - The Pulse survey methodology at ANSTO lends itself to 360-degree (twice annually) evaluations using an advanced digital approach. A dedicated culture and change team analyse the data and provide feedback directly to the CEO and the Executive team. The voice of subordinates is already substantively incorporated in the Pulse surveys. In the next iteration of surveys, ANSTO will scope a 360-degree appraisal process in consultation with staff.</p> <p>The data from Pulse surveys is broken down into teams to provide feedback to individual managers (provided more than five people participate to enable anonymity; if more than five in one team do not participate the data is rolled up to the next level).</p> <p>Status: Open</p>
ANSTO Strategic Objective (From ANSTO WHS Strategy)		Key Objective 1: Our workers will be value driven, enabled, prepared, trained, aware and engaged.	
Outcome		The voice of subordinates is heard.	
Critical Success Factors (measured & sustained.)		<ul style="list-style-type: none"> Staff have a structured and periodic process to be able to give feedback to senior management. 	
ANSTO Officer		Group Executive People, Culture, Safety & Security	
Task Leader/s		Principal Culture and Change	
Priority		Low	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
10	A4110	Define and consult on a set of performance indicators for 360-degree reports linked to the Leadership Capability Framework 'People Management Capabilities'.	Q2 2019 (Complete)
10	A4120	Incorporate targeted questions into existing surveys to identify staff feedback on senior management and bring in data from other reporting sources (safety/behavioural/incident reporting).	Q3 2019 (Complete)
10	A4130	Trial set of reports.	Q4 2019
10	A4140	Review/Implement.	Q1 2020

Recommendation 11			
Rec #	Recommendation		ANSTO Response
11	Relevant functional staff should be described as “embedded” in the host business. They should have a dotted reporting line to someone in the host business. [Context is limited to ANSTO Health]		Partially agreed - The nature of the reporting lines will be reviewed in line with this recommendation. ANSTO will give substantive effect to this, but may not retain the exact phrasing proposed by the Panel. Status: Open
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)		Key Objective 1: Our workers will be value driven, enabled, prepared, trained, aware and engaged.	
Outcome		Deployed staff meet the business requirements for ANSTO Health.	
Critical Success Factors (How improvements will be measured & sustained.)		<ul style="list-style-type: none"> The reporting lines of deployed staff are aligned with the requirements of ANSTO Health. This will be demonstrated through the organisational structure. 	
ANSTO Officer		Group Executive Customer Advocacy and Value Chain	
Task Leader/s		General Manager ANSTO Health	
Priority		Medium	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
11	A4150	Review the organisational structure of deployed staff (including engineering, maintenance and RPS) and update to ensure that their structure and function is aligned with ANSTO Health’s requirements. Ensure this is reflected in organisational charts.	Q4 2019

Recommendation 28			
Rec #	Recommendation		ANSTO Response
28	A series of specific Safety Performance Indicators should be developed and implemented to include both nuclear and conventional safety and organisational risks in order to drive safety improvements and to provide a clear demonstration of leadership and management for safety in accordance with IAEA principles. [Context from Review is ANSTO Health]		Agreed – ANSTO (including ANSTO Health) currently has KPIs for conventional safety. Reactor Operations also has safety performance indicators (SPIs). Radiation Protection Services have existing KPIs. ANSTO Health will conduct a review of the IAEA's guidance on SPIs and will modify its SPIs accordingly. Status: Open
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)	Key Objective 1: Our workers will be value driven, enabled, prepared, trained, aware and engaged. Key Objective 3: Our systems, processes and initiatives will be integrated and of high integrity; enabling, informing, measurement based and validated.		
Outcome	ANSTO Health develops its own SPIs, which are used to drive safety improvements.		
Critical Success Factors (How improvements will be measured & sustained.)	<ul style="list-style-type: none"> ANSTO Health has a clear set of SPIs to aid the organisation in safety improvements. This will be demonstrated through the development and implementation of a framework for reporting safety KPIs for ANSTO Health. The implementation will ensure this becomes a business-as-usual approach including review and improvements to SPI's in consultation with staff. 		
ANSTO Officer	Group Executive Customer Advocacy and Value Chain		
Task Leader/s	High Reliability Support Manager		
Priority	Low		
Rec #	Action ID	Action	Due Date (Calendar Quarter)
28	A4160	Review the IAEA's guidance and other relevant literature/practices on SPIs and develop appropriate SPIs for ANSTO Health.	Q1 2020

Recommendation 31			
Rec #	Recommendation		ANSTO Response
31	WMSD risks for staff remaining in ANSTO Health should be controlled as a matter of urgency in order to ensure they are ALARP. [Context from Review is ANSTO Health]		Agreed – ANSTO has made significant improvements to biomechanical risks in ANSTO Health in recent years. ANSTO will conduct a retrospective analysis of Work-related Musculoskeletal Disorders (WMSDs) in ANSTO Health giving consideration to findings of the 2009 review and recent incident statistics related to WMSD's. ANSTO Health will identify improvements and prioritise the implementation of higher order controls where possible. Status: Open
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)		Key Objective 1: Our workers will be value driven, enabled, prepared, trained, aware and engaged. Key Objective 2: Our workplaces will be managed on a risk informed basis, fit for purpose, monitored, maintained and compliant.	
Outcome		Reduction in WMSDs in ANSTO Health.	
Critical Success Factors (How improvements will be measured & sustained.)		<ul style="list-style-type: none"> WMSDs in ANSTO Health are reduced. This will be measured by the incident rate of WMSD's. 	
ANSTO Officer		Group Executive Customer Advocacy and Value Chain	
Task Leader/s		General Manager ANSTO Health	
Priority		High	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
31	A4170	Conduct a retrospective analysis of WMSD incidents to identify trends in area, type and employee. Then consult with relevant staff in ANSTO Health to further identify areas which may require improvement.	Q4 2019
31	A4180	Develop an implementation plan to control identified hazards; inclusion of ergonomic expert in development of plan to reduce sustained postures.	Q1 2020

Recommendation 44			
Rec #	Recommendation		ANSTO Response
44	ANSTO should develop suitable controls related to the procurement of systems performing a safety function which reflects their safety classification. [Context from Review is ANSTO Health]		Agreed - ANSTO has developed suitable controls for the procurement of chemicals and radioactive sources. ANSTO also has project systems for specifying and procuring safety-related equipment. The processes for procurement of systems performing a safety function in ANSTO Health will be reviewed and integrated with other procurement systems as necessary. Status: Open
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)		Key Objective 3: Our systems, processes and initiatives will be integrated and of high integrity, enabling, informing, measurement based and validated.	
Outcome		The procurement of systems performing a safety function in ANSTO Health is suitably controlled.	
Critical Success Factors (How improvements will be measured & sustained.)		<ul style="list-style-type: none"> The procurement of systems is controlled in a manner commensurate with their safety classification. This will be demonstrated through the documented procurement process and subject to routine review. 	
ANSTO Officer		Chief Nuclear Officer	
Task Leader/s		Chief Nuclear Officer	
Priority		Medium	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
44	A4190	Review existing procurement processes in ANSTO Health against this recommendation and modify/integrate as necessary.	Q4 2019

Recommendation 59			
Rec #	Recommendation		ANSTO Response
59	The safety case formats should include a section on how ageing and obsolescence are to be addressed through the hazard identification, safety analysis and the deductions arising from the analysis.		Agreed - The safety case format will be updated to more specifically address ageing, obsolescence and the management of issues arising from these factors. Status: Open
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)		Key Objective 3: Our systems, processes and initiatives will be integrated and of high integrity, enabling, informing, measurement based and validated.	
Outcome		The Safety Case more explicitly addresses issues involving ageing and obsolescence.	
Critical Success Factors (How improvements will be measured & sustained.)		<ul style="list-style-type: none"> The SAR outlines how issues involving ageing and obsolescence of facilities are managed. This will be demonstrated through the update of the SAR format. 	
ANSTO Officer		Chief Nuclear Officer	
Task Leader/s		Chief Nuclear Officer	
Priority		Low	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
59	A4200	The current SAR format will be revised to include a section on ageing and obsolescence and the management of issues arising from these factors. These will be included in the routine updates of SARs.	Q2 2020

Recommendation 60		
Rec #	Recommendation	ANSTO Response
60	The safety case format documents should include a format for change/modification submissions.	<p>Agreed – The SAR (overall facility safety case document) is not the format applied to modifications. The safety approvals process is described in “Submissions to the Safety Assurance Committee” (AG-2426) and is supported by the “Safety Assurance Committee Process Flowchart” (AG-5846). This is the process that must be followed for all new, renewal or modified submissions. The Safety Assurance Committee Application Form (AF-2321) is the format for submission of changes/modifications (including changes to the safety case). The SAR format includes a revision table to identify the changes in the current version relative to the last previously approved version. This requirement is included in the updated Safety Assurance process.</p> <p>Status: Open pending review and verification</p>
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)	Key Objective 3: Our systems, processes and initiatives will be integrated and of high integrity, enabling, informing, measurement based and validated.	
Outcome	A clear process for the review of a change that is separate from a review of the whole SAR.	
Critical Success Factors (How improvements will be measured & sustained.)	<ul style="list-style-type: none"> Process/format exists for change/modification submissions. 	
ANSTO Officer	Chief Nuclear Officer	
Task Leader/s	Chief Nuclear Officer	
Priority	Low	

Recommendation 61			
Rec #	Recommendation		ANSTO Response
61	Any future projects, in particular changes or modifications within existing facilities, should have sufficient time and resources allocated to the hazard identification studies and that this step should act as a gate to prevent any further progress on the change if this requirement is not met. [Context from Review is ANSTO Health]		Agreed - ANSTO has a well-established, implemented and audited Project Management Methodology. The ANSTO project lifecycle consists of nine stage gates. All projects must pass through those gates, and the Methodology provides a checklist of items to be assessed at each gate, including appropriate identification and addressing of hazards and risks. The Methodology will be carefully reviewed with a view to increasing focus at the gates on ensuring that appropriate resourcing is provided to address identified hazards and risks and that change management processes are being implemented. Status: Open
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)		Key Objective 3: Our systems, processes and initiatives will be integrated and of high integrity, enabling, informing, measurement based and validated.	
Outcome		Sufficient time is allocated to hazard identification studies so that they are systematic and comprehensive.	
Critical Success Factors (How improvements will be measured & sustained.)		<ul style="list-style-type: none"> Sufficient time is allocated at the hazard identification stage of a project. Demonstrated through the Project Management Methodology (which is implemented and audited). 	
ANSTO Officer		Group Executive Engineering & Capital Programs	
Task Leader/s		Manager Portfolio and Project Governance	
Priority		High	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
61	A4210	The Project Management Methodology will be carefully reviewed/amended with a view to increasing focus at the gates on ensuring that appropriate resourcing is provided to address identified hazards and risks, and that change management processes are being implemented.	Q1 2019 (Complete)

Recommendation 65			
Rec #	Recommendation		ANSTO Response
65	ANSTO should consider the inclusion of suitable tabular schedules within the facility SARs as the record of traceability and auditability of safety provisions and their suitability against relevant hazards.		Agreed - The SAR template will be updated. Status: Open
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)		Key Objective 1: Our workers will be value driven, enabled, prepared, trained, aware and engaged. Key Objective 3: Our systems, processes and initiatives will be integrated and of high integrity, enabling, informing, measurement based and validated.	
Outcome		Safety measures are traceable against the relevant hazards.	
Critical Success Factors (How improvements will be measured & sustained.)		<ul style="list-style-type: none"> Safety measures in the SAR are traceable against the relevant hazard and their suitability demonstrated. This will be demonstrated through the update of the SAR template and the training of all licencing officers (i.e. those responsible for the SARs) 	
ANSTO Officer		Group Executive Engineering & Capital Programs	
Task Leader/s		Safety and Reliability Adviser	
Priority		Low	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
65	A4220	Incorporate tables in a revised SAR template to allow for traceability and audit of safety systems against relevant hazards.	Q2 2020
65	A4230	Develop training package and provide training sessions for licencing officers on the revised template.	Q2 2020

Recommendation 70			
Rec #	Recommendation		ANSTO Response
70	The maintenance, inspection and test requirements for each facility should be formally documented from the safety analysis claims and supported by a suitable strategy. [Context from Review is ANSTO Health]		Agreed - Maintenance strategies (which include the inspection and test requirements) are in place; these are linked to maintenance plans. The maintenance strategies and plans with a safety basis will be reviewed and updated. Status: Open
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)		Key Objective 2: Our workplaces will be managed on a risk informed basis, fit for purpose, monitored, maintained and compliant.	
Outcome		Maintenance strategies covering safety-related measures are robust.	
Critical Success Factors (How improvements will be measured & sustained.)		<ul style="list-style-type: none"> Maintenance plans, inspection and test requirements, and substitution arrangements (in the case of unavailability) are known for all SSCs. All SSC's have maintenance strategies and plans linked to the safety case. Maintenance strategies and plans are enacted. Compliance with maintenance strategies and plans will be measured through the work order system in SAP; this system also ensures the ongoing implementation of the maintenance strategies. 	
ANSTO Officer		Group Executive Customer Advocacy and Value Chain	
Task Leader/s		CAVC Portfolio Leader	
Priority		Medium	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
70	A4240	Review all maintenance strategies and plans (with a safety basis) for Building 23. The review will consider the appropriateness of the work plan, the frequency and the acceptance criteria against the safety analysis claim that relate to Structures, Systems and Components (SSC's) which are categorised as level 1, 2, or 3 as per "ANSTO Guide" AG-2494.	Q1 2020
70	A4250	Ensure that suitable maintenance strategies are documented to cover all level 1, 2, and 3 SSC's.	Q4 2020

Recommendation 71			
Rec #	Recommendation		ANSTO Response
71	ANSTO should examine its claimed procedural safety measures to identify whether any could be classed as related to compliance with the safe operating limits and conditions i.e. "Operating Rules" and whether the associated procedures are robust enough from a quality assurance, training, implementation and human factors substantiation viewpoint. [Context from Review is ANSTO Health]		Agreed – ANSTO’s Operating Limits and Conditions (i.e. Operating Rules) are documented and are subject to a robust quality assurance process. The Operating Limits and Conditions in ANSTO Health will be audited, along with relevant policies, guides and procedures. Status: Open
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)		Key Objective 1: Our workers will be value driven, enabled, prepared, trained, aware and engaged. Key Objective 2: Our workplaces will be managed on a risk informed basis, fit for purpose, monitored, maintained and compliant. Key Objective 3: Our systems, processes and initiatives will be integrated and of high integrity, enabling, informing, measurement based and validated.	
Outcome		ANSTO Health’s Operating Limits and Conditions (OLC’s) are supported by robust procedures.	
Critical Success Factors (How improvements will be measured & sustained.)		<ul style="list-style-type: none"> The procedures supporting the Operating Limits and Condition in ANSTO Health are verified as being suitable and include appropriate margin layers. This will be demonstrated through an audit/review of all of the ANSTO Health Operating Limits and Conditions and their associated documents. 	
ANSTO Officer		Group Executive Engineering & Capital Programs	
Task Leader/s		Safety and Reliability Adviser	
Priority		Medium	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
71	A4260	Conduct a review of the Operating Limits and Conditions for ANSTO Health (Building 23 and Building 54) to identify related policies, guides, procedures and/or instructions.	Q1 2019 (Complete)
71	A4270	Evaluate the effectiveness of the documents thus identified within a quality assurance, training, implementation and human factors substantiation viewpoint. Involve subject matter expertise from Engineering & Capital Programs and OPAL as appropriate.	Q2 2020

Recommendation 76			
Rec #	Recommendation		ANSTO Response
76	ANSTO should consider the production of a safety case manual/safety assessment handbook.		<p>Agreed – ANSTO will develop a safety case manual to ensure consistency in the approach. Much of this information is currently contained within ANSTO Guides; this information will be used as the basis for a manual.</p> <p>Status: Open</p>
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)	Key Objective 3: Our systems, processes and initiatives will be integrated and of high integrity, enabling, informing, measurement based and validated.		
Outcome	The approach to completing a safety case is consistent across the organisation.		
Critical Success Factors (How improvements will be measured & sustained.)	<ul style="list-style-type: none"> The approach to completing a safety case is consistent across ANSTO. This will be demonstrated through the implementation of a safety case manual which is subject to routine review. 		
ANSTO Officer	Chief Nuclear Officer		
Task Leader/s	Chief Nuclear Officer		
Priority	Low		
Rec #	Action ID	Action	Due Date (Calendar Quarter)
76	A4280	ANSTO will develop a safety case manual/safety assessment handbook.	Q4 2020

Recommendation 79			
Rec #	Recommendation		ANSTO Response
79	ANSTO RPS should set up an experiment to ensure the Perspex glasses used as splash protection for the eyes also provide sufficient protection from beta radiation.		<p>Agreed - ANSTO will confirm that the eye protection used provides adequate beta shielding for beta emitters used at ANSTO in facilities where unshielded exposure is probable.</p> <p>Status: Open</p>
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)		Key Objective 3: Our systems, processes and initiatives will be integrated and of high integrity, enabling, informing, measurement based and validated.	
Outcome		Review of the suitability of eye protection.	
Critical Success Factors (How improvements will be measured & sustained.)		<ul style="list-style-type: none"> Suitable eye protection is used. This will be demonstrated by the results of a search of literature and/or completion of an experiment. 	
ANSTO Officer		Group Executive People, Culture, Safety & Security	
Task Leader/s		Radiation Protection Services Manager	
Priority		Medium	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
79	A4290	Research work already carried out at other establishments to determine the beta radiation shielding properties of eye protection used at ANSTO. If appropriate data is not available, Radiation Protection Services (RPS) will devise and execute an assessment of beta radiation shielding properties of eye protection in use at ANSTO.	Q4 2019

Recommendation 80			
Rec #	Recommendation		ANSTO Response
80	The ANSTO RPS roster staff to ensure health physics coverage when high risk activities are taking place.		Agreed – ANSTO will conduct a review of high risk radiological tasks and assess whether RPS presence is mitigating. After identifying the RPS requirements, the RPS workforce plan will be updated. ANSTO currently rosters on health physics staff from 06:00 to 19:00 6 days a week and has staff on call 24/7. Status: Open
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)		Key Objective 3: Our systems, processes and initiatives will be integrated and of high integrity, enabling, informing, measurement based and validated.	
Outcome		Suitable and adequate RPS coverage for high risk radiological tasks.	
Critical Success Factors (How improvements will be measured & sustained.)		<ul style="list-style-type: none"> Suitable and adequate RPS coverage for high risk radiological tasks. This will be demonstrated through review of all high risk radiological activities and a subsequent update to the RPS workforce plans and rosters as required. 	
ANSTO Officer		Group Executive People, Culture, Safety & Security	
Task Leader/s		Radiation Protection Services Manager	
Priority		Medium	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
80	A4300	Review high-risk radiological activities.	Q4 2019
80	A4310	Review controls of the radiological activities above. Identify the purpose and responsibilities of the administrative control of the RPS presence and consider whether this will add value to all or some of the high radiological risk tasks identified.	Q1 2020
80	A4320	Update RPS workforce plan accordingly	Q1 2020

Recommendation 81			
Rec #	Recommendation		ANSTO Response
81	ANSTO undertake an assessment and validation of the clearance procedure of high risk items, such as flasks, by non-health physics persons.		Agreed - ANSTO has a documented process (Flask Clearance for Accredited ANSTO Staff P-3097) which describes the procedure for the consignment of flasks between operational areas at ANSTO. ANSTO will conduct a review of this process. Status: Open
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)	Key Objective 3: Our systems, processes and initiatives will be integrated and of high integrity, enabling, informing, measurement based and validated.		
Outcome	Ensure that flask consignment is undertaken by appropriately competent staff.		
Critical Success Factors (How improvements will be measured & sustained.)	<ul style="list-style-type: none"> Flasks are consigned by competent staff. This will be demonstrated by the outcome of the review and the implementation of resulting actions. 		
ANSTO Officer	Group Executive People, Culture, Safety & Security		
Task Leader/s	Radiation Protection Services Manager		
Priority	Low		
Rec #	Action ID	Action	Due Date (Calendar Quarter)
81	A4330	Carry out a review of the Flask Clearance process (including a review of the validation of the competency of non-RPS staff accredited to monitor the flasks).	Q2 2020

Recommendation 82			
Rec #	Recommendation		ANSTO Response
82	ANSTO come to a final decision on the total dose assigned to the QC analyst who suffered a hand burn due to beta radiation exposure in August 2017 and ensure that this dose is added to their 2017 dose record. A discussion with the REAC/TS group at Oak Ridge is suggested, where it can be determined if there is enough remaining evidence to provide a proper dose assessment. Additionally, ANSTO should consider enrolling a member of the RPS staff to the REAC/TS course to gain knowledge and experience with dealing with medical management of radiologically contaminated persons.		Agreed - ANSTO will record the final dose range assessment once determined by the medical team. ANSTO will enrol selected RPS and medical staff in a Radiation Emergency Assistance Centre/Training Site (REAC/TS) training course. Status: Open
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)		Key Objective 3: Our systems, processes and initiatives will be integrated and of high integrity, enabling, informing, measurement based and validated.	
Outcome		Increase knowledge of RPS team in dealing with medical management of radiologically contaminated persons.	
Critical Success Factors (How improvements will be measured & sustained.)		<ul style="list-style-type: none"> Increase knowledge in dealing with medical management of radiologically contaminated persons. This will be demonstrated by updates to ANSTO RPS staff training curricula and training records of RPS staff will demonstrate that staff have been appropriately trained. 	
ANSTO Officer		Group Executive People, Culture, Safety & Security	
Task Leader/s		Radiation Protection Services Manager	
Priority		Low	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
82	A4340	RPS will record the final skin dose range as determined by the medical team involved.	Q2 2020
82	A4350	RPS will review the REAC/TS training and include appropriate identified training in the Health Physicist Development Initiatives (ANSTO/RPS/TN/2018-8).	Q4 2019

Continued – Recommendation 82			
Rec #	Action ID	Action	Due Date (Calendar Quarter)
82	A4360	Identified RPS staff will attend the REAC/TS identified training.	Q4 2019
82	A4370	RPS will amend the ANSTO RPS Emergency Procedures to incorporate the learnings gained by attending the REAC/TS training courses.	Q4 2019

Recommendation 83			
Rec #	Recommendation		ANSTO Response
83	ANSTO review their procedures to ensure proper uses of physical units and amend them based on the review.		<p>Agreed – ANSTO uses units appropriate for the context and is aligned with the regulator in its practices. ANSTO will review the training and procedures provided to RPS staff and ensure that staff are trained to use the correct radiological units for the circumstances.</p> <p>Status: Open</p>
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)	Key Objective 3: Our systems, processes and initiatives will be integrated and of high integrity, enabling, informing, measurement based and validated.		
Outcome	Review use of physical units.		
Critical Success Factors (How improvements will be measured & sustained.)	<ul style="list-style-type: none"> RPS staff are knowledgeable in the use of correct radiological units. This will be demonstrated through a review and update of relevant RPS training/procedures and training records to show that staff have been trained appropriately. 		
ANSTO Officer	Group Executive People, Culture, Safety & Security		
Task Leader/s	Radiation Protection Services Manager		
Priority	Low		
Rec #	Action ID	Action	Due Date (Calendar Quarter)
83	A4380	RPS will review the staff training and procedures and ensure RPS staff are trained to use correct radiological units for the circumstances.	Q4 2019

Recommendation 84			
Rec #	Recommendation		ANSTO Response
84	ANSTO review the staffing and workload of the RPS unit, with consideration that accepting many of the recommendations of this review will result in a higher workload for an already lean staff.		Agreed - ANSTO will conduct a detailed workforce review. Status: Open
ANSTO Strategic Objective (From ANSTO Work Health & Safety Strategy)		Key Objective 1: Our workers will be value driven, enabled, prepared, trained, aware and engaged.	
Outcome		The RPS team is sufficiently staffed.	
Critical Success Factors (How improvements will be measured & sustained.)		<ul style="list-style-type: none"> The RPS team is appropriately staffed. This will be demonstrated through a workforce plan and gap analysis. 	
ANSTO Officer		Group Executive People, Culture, Safety and Security	
Task Leader/s		Radiation Protection Services Manager	
Priority		Medium	
Rec #	Action ID	Action	Due Date (Calendar Quarter)
84	A4390	ANSTO RPS will develop a workforce plan which will include a gap analysis and a roadmap to achieving the identified demand.	Q4 2019

Appendix Four: WHS Definitions

Officer

An 'officer' is a person who makes, or participates in making decisions that affect the whole or a substantial part of ANSTO.

(WHS Act 2011, Section 27)

Worker

A person is a worker if the person carries out work in any capacity for a person conducting a business or undertaking, including work as:

- An employee; or
- A contractor or subcontractor; or
- An employee of a contractor or subcontractor; or
- An employee of a labour hire company who has been assigned to work in the person's business or undertaking; or
- An outworker; or
- An apprentice or trainee; or
- A student gaining work experience; or
- A volunteer.

(WHS Act 2011, Section 7).