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NNR: NO No.:	KOEBERG NUCLEAR POWER STATION SAFETY CULTURE ENHANCEMENT PROGRAMME			PAGE 1

KORC	ACCESS	IMPORTANCE CATEGORY	NEXT REVIEW DATE	DATE AUTHORISED
NO	Nuclear Restricted	NSA	2023-07-31	2020-07-31

COMPILED/REVISED	REVIEWED	AUTHORISED
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MO TSHIVHILINGE	K BETHEL	V NTULI
SENIOR ADVISOR ISED	SENIOR ADVISOR ISED	GENERAL MANAGER KOEBERG NUCLEAR POWER STATION
DATE 2020-07-29	**DATE** 2020-07-29	**DATE** 2020-07-31

THIS PROCEDURE HAS BEEN SEEN AND ACCEPTED BY:

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FCA	ALARA REVIEW	SUPERSEDES
SAFETY CULTURE	NO	KAA-850, Rev 0 dd. 2013-12-24 FULL REVIEW

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1.0 PURPOSE

To describe the establishment and implementation of a Safety Culture Enhancement Programme (SCEP) that fosters and maintains a strong and healthy safety culture as part of the Koeberg Nuclear Power Station (KNPS) Integrated Management System.

2.0 SCOPE

2.1 This document details the KNPS business area SCEP as a requirement of 238-28 and includes the following:

2.1.1 Provides for the establishment of a KNPS Safety Culture Plan;

2.1.2 Defining the management roles and responsibilities in respect of implementing the Safety Culture Plan (SCP);

2.1.3 Details the composition and functioning of the Safety Culture Steering Committee (SCSC);

2.1.4 Provides for the establishment, implementation, monitoring and evaluation of the KNPS SCEP that takes into account safety culture enhancement initiatives from the functional area Departments;

2.1.5 Details how the KNPS monitors Level 1 supplier safety culture status and sets out Safety Culture Enhancement Programme, as it is applied within KNPS.

3.0 DEFINITIONS AND ABBREVIATIONS

3.1 Definitions

3.1.1 **Integrated Management System** – A single coherent management system in which all the organisational processes are integrated to enable the organisation's goals, strategies, plans and objectives to be achieved. (Definition in accordance with 238-1)

3.1.2 **Leader(s)** – Executives, managers and supervisors throughout the Koeberg Operating Unit as well as its contractors and its suppliers of products of high importance to nuclear safety where RD-0034 is applicable, that are involved in all Nuclear Installation life-cycle phases.

3.1.3 **Nuclear Safety Culture** – Core values and behaviours resulting from a collective commitment by leaders and individuals to emphasise safety over competing goals to ensure protection of people and the environment. (Definition in accordance with 238-28)

3.1.4 **Safety Culture Forum** – A Safety Culture Enhancement Programme management review forum, chaired by the CNO, convened to assess the health of safety culture at the NOU.

3.1.5 **Safety Culture Plan** – A plan developed and implemented to document specific activities that will be carried out under the Safety Culture Enhancement Programme. The Safety Culture Plan must be developed in consultation with and communicated to staff at all levels of the organisation. The plan must be regularly reviewed and updated.

3.1.6 **Safety Culture Steering Committee** – Is a committee, chaired by the GM or his/her designate that oversees the execution of the KNPS Safety Culture Plan.

3.1.7 **Safety Management System** – A system concerned with the nuclear safety of processes, including reliability of the products with respect to their nuclear safety function (Definition in accordance with 238-1).

3.1.8 **Trait** – A trait is defined as a pattern of thinking, feeling, and behaving such that safety is emphasised over competing priorities.

3.2 Abbreviations

3.2.1 **CAP** – Corrective Action Program

3.2.2 **CNO** – Chief Nuclear Officer

3.2.3 **CR** – Condition Report

3.2.4 **EDF** – Electricite De France

3.2.5 **HOD** – Head of Department

3.2.6 **HP** – Human Performance

3.2.7 **IAEA** – International Atomic Energy Agency

3.2.8 **IMS** – Integrated Management System

3.2.9 **INPO** – Institute of Nuclear Power Operations

3.2.10 **INSAG** – International Nuclear Safety Advisory Group

3.2.11 **ISED** – Independent Safety Evaluation Department

3.2.12 **KNPS** – Koeberg Nuclear Power Station

3.2.13 **NEI** – Nuclear Energy Institute

3.2.14 **NNR** – National Nuclear Regulator

3.2.15 **NOU** – Nuclear Operating Unit

3.2.16 **NSA** – Nuclear Safety Assurance

3.2.17 **OE** – Operating Experience

3.2.18 **PM** – Plant Manager

3.2.19 **PSGM** – Power Station General Manager

3.2.20 **QMS** – Quality Management System

3.2.21 **QRL** – Quality Record Listing

3.2.22 **SC** – Safety Culture

3.2.23 **SCEP** – Safety Culture Enhancement Programme

3.3.24 **SCF** – Safety Culture Forum

3.2.25 **SCP** – Safety Culture Plan

3.3.26 **SCSC** – Safety Culture Steering Committee

3.2.27 **SHEQ** – Safety, Health, Environment and Quality

3.2.28 **SOER** – Significant Operating Experience Report

3.2.29 **WANO** – World Association of Nuclear Operators

4.0 REFERENCES

4.1 Referenced Documents

4.1.1 238-1, Rev 0: Nuclear Division Integrated Management System (IMS) Description

4.1.2 238-28, Rev 3: Nuclear Operating Unit: Nuclear Safety Management Programme

4.1.3 240-129883544, Rev 1: Procurement Quality Engineering Requirements

4.1.4 335-2, Rev 5: Koeberg Nuclear Power Station Management Manual

4.1.5 'Excellence in Human Performance', INPO, 1997

4.1.6 'Principles for a Strong Nuclear Safety Culture', INPO, November 2004

4.1.7 'Traits of a Healthy Nuclear Safety Culture', INPO 12 – 012 April 2013

4.1.8 'WANO PO&C Performance Objectives and Criteria', PO&C 2019 – 1 October 2019

4.1.9 IAEA INSAG-13: Management of Operational Safety in Nuclear Power Plants

4.1.10 IAEA INSAG-15: Key Practical Issues in Strengthening Safety Culture

4.1.11 IAEA Safety Series No.75 INSAG-4: Safety Culture

4.1.12 KAA-500, Rev 13: The Process for Controlled Documents

4.1.13 KGA-095, Rev 1: Overview of the Integrated Management System Used in the Nuclear Portfolio in Support of Koeberg

4.1.14 KSA-011, Rev 14: The Requirements for Controlled Documents

4.1.15 NNR RD-0034, Rev 0: Quality and Safety Management Requirements for Nuclear Installations

4.2 Applicable Documents

4.2.1 32-421: Life Saving Rules Directive

4.2.2 32-727: Safety, Health, Environment and Quality (SHEQ) Policy

4.2.3 32-1023: Recruitment and Selection Procedure

4.2.4 36-220: Generation Occurrence Management

4.2.5 238-105: Nuclear Operating Unit Supplier Qualification and Audit Manual

4.2.6 238-129: Nuclear Operating Unit Self Assessments

4.2.7 240-131691121: Internal and External Communication Procedure

4.2.8 335-3: Conduct of Maintenance: Reference Manual

4.2.9 KAA-501: Project Management Process for Koeberg Nuclear Power Station Modifications

4.2.10 KAA-598: SHE Management System

4.2.11 KAA-632: ALARA Programme

4.2.12 KAA-665: KORC Constitution

4.2.13 KAA-667: Processing a Permit to Work

4.2.14 KAA-687: KOSC Constitution

4.2.15 KAA-688: The Corrective Action Process

4.2.16	KAA-721:	Online Work Management Process
4.2.17	KAA-730:	The Safety, Health and Environmental (SHE) Constitution and Meeting Format
4.2.18	KAA-778:	Station Alara Committee Constitution
4.2.19	KAA-789:	Koeberg Accident Procedures Sub-Committee
4.2.20	KAA-832:	Quality Assurance Monitoring Processes
4.2.21	KAA-833:	Quality Assurance Monitoring Programme Development for the Koeberg Operating Unit
4.2.22	KAD-025:	Processing of Operating Experience
4.2.23	KGA-051:	Benchmarking Guide at Koeberg Nuclear Power Station
4.2.24	KGA-053:	Self-Assessment at Koeberg Nuclear Power Station
4.2.25	KGA-076:	Performing Trending & Trending Analysis
4.2.26	KGA-078:	Coaching and Job Observation at Koeberg Nuclear Power Station
4.2.27	KGA-085:	Effectiveness Reviews
4.2.28	KGA-091:	Safety, Health and Environment (SHE) Management Inspection and Plant Area Ownership Programme
4.2.29	KGA-097:	Station Event-Free Clock Program
4.2.30	KSA-038:	Requirements for Quality Records
4.2.31	KSA-049:	Koeberg Training Standard
4.2.32	KSA-119:	Management and Control of Supplemental Workers Koeberg Nuclear Power Station
4.2.33	KSA-122:	Human Performance Tools
4.2.34	KSB-005:	Operating Standards and Expectations

5.0 RESPONSIBILITIES

Commitment to Safety

Management commitment to nuclear safety and to the strengthening of safety culture is demonstrated within the KNPS as described in the NOU Nuclear Safety Management Programme 238-28, and in the Conventional Safety, Health, Environmental and Quality Policy. This is further supported by the adoption of the traits set out in Appendix 2, to serve as the basis of a healthy safety culture at KNPS and also apply to all supplemental personnel, and Level 1 suppliers and vendors. These traits, as well as the objectives and attributes when embraced, will influence values, assumptions, experiences, behaviours, beliefs and norms that describe what it is like to work at KNPS.

5.1 The Power Station General Manager (PSGM):

The PSGM is responsible for ensuring that a healthy safety culture has been established and maintained at KNPS. The responsibilities include:

5.1.1 Allocating sufficient organisational resources, such as budgets, times and staff, to give effect to the SCEP.

5.1.2 Establishing a Safety Culture Steering Committee (SCSC) for KNPS that is charged with monitoring the effective implementation of the SCEP and improving safety culture.

5.1.3 Ensuring compliance to the requirements of the NOU as stipulated in the governing document, 238-28.

5.2 Independent Safety Evaluation Department (ISED):

The ISED Manager, on behalf of the PSGM, is responsible for:

5.2.1 Demonstrating the behaviours necessary to foster a healthy safety culture within KNPS.

5.2.2 Developing and implementing SCEP that will detail specific initiatives aimed at achieving and strengthening a healthy safety culture in the KNPS Functional Area.

5.2.3 The establishment, maintenance and implementation of KNPS SCP.

5.2.4 Ensuring that the SCEP and associated actions comply with the requirements of the NNR as stipulated in Regulatory Guide RD-0034.

5.2.5 Evaluation of event, audit and review reports for possible safety culture improvement requirements.

5.2.6 Continuously monitoring safety culture within KPNS and associated Level 1 suppliers.

5.2.7 Leading an annual process of safety culture self-assessment described in 238-129 and KGA-053.

NOTE: *These functions are/shall be executed by the Safety Culture Practitioner or Co-ordinator which is a function residing in ISED.*

5.3 Head of Department (HOD):

5.3.1 Ensuring a healthy safety culture has been established and maintained within their Departments.

5.3.2 Demonstrating the behaviours necessary to foster a healthy safety culture within their departments.

5.3.3 Involvement in and contributing to the development of KNPS SCEP and SCP.

5.3.4 Developing, implementing and maintaining a Departmental SCEP and SCP in consultation with staff at all levels within the Department

5.3.5 Ensuring that the Departmental SCP and training programme emphasise the requirements of 238-28, RD-0034 and the KNPS SCEP and SCP.

5.3.6 Active involvement and contribution to the annual KNPS safety culture self assessment and survey process, carried out through the SCF.

5.3.7 Active participation in the KNPS Safety Culture Steering Committee meetings.

6.0 PROCESS

6.1 Safety Culture Enhancement Programme (SCEP)

The SCEP follows the whole or part, of the routes shown in the Work Flow responsibility matrix (Appendix 1), and shall detail the following requirements:

6.1.1 Selection, Training, Competence

6.1.1.1 The safety attitudes and values shall be taken into account in the selection processes for leaders and specific categories of personnel where applicable.

6.1.1.2 Induction training programmes shall include a section on safety management and safety culture, to ensure that all personnel have the same understanding of their personal accountability and responsibility for nuclear safety.

6.1.1.3 Specific safety culture training and awareness interventions shall be conducted on the basis of feedback from surveys, CAP investigations, audits, internal and external OE, and reviews.

6.1.1.4 In accordance with the requirements of 238-28, activities having a potential impact on nuclear safety shall be performed by suitably qualified and experienced persons.

NOTE: *A graded approach to the systematic approach to training is followed for the training programmes at KNPS, in accordance to KSA-049. The assessment of technical competence is an integral part of training programmes.*

6.1.2 Safety Culture Awareness and Communication

6.1.2.1 Lessons learned from OE, both local and at other nuclear power utilities and relevant industries, which serve as examples of where poor safety culture has resulted in significant events, shall be used to inform specific safety culture awareness interventions.

6.1.2.2 Guidance on what is reflected as traits for a healthy Nuclear Safety Culture according to various industry organisations shall be incorporated into safety culture awareness interventions.

6.1.3 Individual Awareness/Questioning Attitude

6.1.3.1 KNPS promotes the use of human performance and error prevention tools to promote safe, error free operation. Human performance and error prevention tools provide a set of practical methods to anticipate and prevent errors.

6.1.3.2 The application of the HP and error prevention tools by individuals allows the demonstration of a questioning attitude and the requirement of each individual or team to stop and review safety, evaluate assumptions, anomalies or conditions before starting work or commencement of a procedure.

6.1.3.3 The application and integration of human performance and error prevention tools allows individuals to adopt a rigorous and prudent approach and to ensure the necessary communication practice is applied to ensure information transferred and received is confirmed and correct.

6.1.3.4 The traits of individual awareness and questioning attitude can be observed in the preparation and execution of work activities and during the use of procedures.

6.1.3.5 KNPS permanent and supplemental employees attend periodic Safety Culture awareness interventions which promote the importance of a healthy nuclear safety culture.

6.1.3.6 The characteristic of individual awareness and questioning attitude is an integral part of KNPS processes specifically those activities having an impact on nuclear safety.

6.1.4 Safety Leadership

6.1.4.1 Leaders demonstrate a commitment to safety in their decisions and behaviours. This commitment to safety is supported and demonstrated by management and staff in their decisions and behaviours in the station nuclear safety and SHEQ committees and programmes.

6.1.4.2 Leaders must ensure that personnel, equipment, procedures and other resources are available and adequate to support nuclear safety.

6.1.4.3 To influence and maintain a desired safety culture in an organisation, managers and supervisors are required to practice visible leadership in the field through coaching, mentoring, reinforcing, rewarding and general interaction with workers.

6.2 Acceptance of Rules

The standards and rules governing the production, review and availability of KNPS documents ranges from policy directives and processes to working procedures, and the associated records to ensure that activities important to safety and quality are complied to.

6.3 Safety Culture Assessments

6.3.1 Internal Audits and Reviews

6.3.1.1 Quality audits and management surveillance provide a measure of the adequacy and effectiveness of the safety management system. Internal audits findings will be the responsibility of KNPS as part of the QMS audit programme

6.3.1.2 Scheduling, execution and closure of internal SCEP management reviews will be carried out as part of the SCSC mandate. The periodicity will be detailed in the SCP.

6.3.1.3 Self-Assessments' reviews provide a structured approach in assessing the effectiveness of programmes, processes or performance against specific criteria, to identify gaps and opportunities for performance improvement.

6.3.2 External Audit and Reviews

Audits and reviews of KNPS safety management system are also scheduled by independent organisations such as WANO (i.e. Peer Reviews), OSART, NSRB, NOSA, SABS, as well as local independent oversight reviews involving staff from other Eskom business areas such as NSA. The reviews of the safety management system allow a judgement to be made on the status of safety culture as well as the effectiveness of the KNPS safety management system.

6.4 Safety Culture Surveys and Monitoring

A systematic process for monitoring safety culture using a graded approach to nuclear safety provides insight to leading and lagging indicators. The leading aspect of monitoring involves identifying pre-cursor level problems for resolution before they become larger organisational issues.

6.4.1 Examples of leading indicators involve activities such as:

- self-assessments;
- field observations;
- benchmarking;
- routine trending and performance monitoring;
- Other performance indicators to identify deteriorating performance or behaviours;

6.4.2 Examples of lagging indicators involve activities such as:

- condition discovery and reporting;
- corrective action effectiveness reviews, and
- management review of and response to top level station performance indicators, such as those depicting lost generation (UCLF) events, Lost Time Injuries (LTI) events and significant human performance errors.

6.4.3 Safety culture monitoring will take the form of:

- Periodic safety culture surveys at the frequency documented, in 238-28.
- Results from review of the annual NSC Self-Assessments
- Results from review of Behaviour Observations
- Results from review of Performance Trending
- Corrective Action Effectiveness Reviews to prevent recurrence and gauge effectiveness of improvement actions
- Review of Operating Experience
- Review of the KNPS nuclear safety performance indicators
- Review reports of NSA Evaluations
- Review reports from WANO Peer Review

- Review reports from OSART reviews
- Review reports from NSRB reviews

Event, audit and review reports will be evaluated by ISED for possible safety culture improvement requirements. The results of monitoring will be individually evaluated to determine the need for any corrective action to be taken. Any actions identified will be included in the annual SCP.

6.5 Contractors, Suppliers and Vendors

6.5.1 KNPS monitors supplier progress on safety culture enhancement, through audits, reviews of the suppliers SCEP and routine progress reports. This monitoring includes Level 1 suppliers described in 238-105.

6.5.2 The frequency of monitoring safety culture at suppliers will be planned and scheduled to take into account the suppliers schedules for design, manufacturing, delivery and construction activities in accordance with the frequencies prescribed in 238-105.

6.5.3 Areas for improvement (AFI) and non-conformances raised during these audits and reviews are monitored by KNPS. This is included in the quality assurance programme requirements for procured items and services from Level 1 suppliers for status tracking and updates in accordance with 240-129883544.

6.5.4 Contractors, Suppliers and Vendors of products with high importance to nuclear safety shall be required to have and implement an acceptable SCEP that complies with the requirements and aspects important to reach an appropriate safety culture.

6.6 Continuous Improvement

6.6.1 Feedback and Continual Improvement

6.6.1.1 Operating Experience feedback process (including liaison with international bodies such as IAEA, WANO, INPO and NEI) shall be used to continually improve KNPS SCEP. Operating experience facilitates the learning of lessons from internal and external sources, both within and outside the nuclear industry.

6.6.1.2 Event reporting (near misses, findings, events, etc.) is reported as per the requirements of the CAP process. The results of investigations plus the status of any corrective actions are also tracked. To ensure that all Eskom and regulatory reporting requirements are complied with, applicable events are also reported and investigated as per the requirements of the process.

6.6.1.3 The creation of the SCEP and the maintenance of the SCP will facilitate continuous improvement of the safety culture within KNPS.

6.6.1.4 Self-Assessment of programs and processes to identify gaps and opportunities for improvement shall be used to continually improve safety culture within KNPS.

6.6.2 Learning from Events

6.6.2.1 Internal Events

Relevant operating experience from previous events within the KNPS is used in order to prevent and to mitigate the effects of events. The objective is to help reduce the number and consequence of events and also the reoccurrence of similar events and also to improve safety standards, (both nuclear and conventional), equipment availability, reliability and processes.

6.6.2.2 External Events

Regular fact finding and benchmarking exercises are made to leading international utilities, Original Equipment Manufacturers, other nuclear plants and vendors to explore best practices and to acquire operating experience in order to prevent and to mitigate the effects of events. KNPS review, screen, evaluate and provide Koeberg management and staff with applicable industry operating experience especially from WANO SOER's, EDF Affaire' Parcs and Eskom Events.

6.7 Control of Safety Culture Enhancement Programme

This SCEP document and associated SCP was created to document the initiatives of safety culture enhancement within the KNPS. The Safety Culture Steering Committee (SCSC) has been convened comprising staff members across KNPS to facilitate control and to encourage staff involvement in safety culture activities.

NOTE: *When a HOD of a represented department is not available to attend, the HOD is to appoint a designate from his direct reports. The SCSC meeting will be facilitated by ISED.*

6.7.1 The Safety Culture Steering Committee (SCSC)

6.7.1.1 The Safety Culture Steering Committee meets quarterly to discuss the status of the SCEP activities and the annual SCP.

6.7.1.2 The SCSC meeting will be chaired by either, the PSGM, the Plant Manager, the ISED Manager or one of the HODs, unless designated otherwise by the PSGM.

6.7.1.3 The HODs of all the KNPS departments are required to attend the SCSC meeting.

6.7.1.4 SCSC quorum requires the chairman and at least four represented departments HOD's.

6.7.1.5 The reviewed SCEP, SCP and SCSC meeting minutes and actions will be indexed under ISED QRL and updated quarterly.

6.7.2 Safety Culture Forum (SCF)

Periodic assessment and evaluation of safety culture is important in ensuring that a healthy safety culture is established and sustained.

6.7.2.1 The NOU SCF convenes quarterly to review the NOU SCEP, review status of NOU safety culture and align on initiatives to enhance safety culture within NOU the business areas.

6.7.2.4 The CNO chairs the forum, which is attended by SC custodians representing all NOU Business Areas. KNPS is represented in this forum.

NOTE: *The ISED Manager is delegated as alternate chairperson.*

7.0 RECORDS

The following permanent records will be produced from this procedure and will be indexed in the ISED QRL:

7.1 The KNPS SCEP.

7.2 The KNPS SCP.

7.3 The Nuclear Safety Culture Survey results.

7.4 The annual Safety Culture Assessment Report.

7.5 The Quarterly SCSC Meeting Minutes and Actions.

8.0 ATTACHMENTS

Appendix 1 – Work Flow Responsibility Matrix – KNPS Safety Culture Process

Appendix 2 – Traits of a Healthy Nuclear Safety Culture (from INPO 12-002)

Appendix 3 – Justification

WORK FLOW RESPONSIBILITY MATRIX	**APPENDIX 1: KNPS SAFETY CULTURE PROCESS**

R – Responsible A – Approve F – File • – Outside Matrix Scope Y/N or N/Y – Decision C – Concur I – Informed S – Service [ ] – Mandatory Requirement ( ) – As Appropriate/Required Flow Path: Main Flow Secondary Flow	**SAFETY CULTURE ENHANCEMENT PROGRAMME**												**NOTES & REFERENCES**
	POWER STATION MANAGER	ISED	HEAD OF DEPARTMENT	HEAD OF GROUP/LINE MANAGER	STAFF	PLANT TRAINING DEPARTMENT	TD&RM	OPERATING EXPERIENCE GROUP	STAKEHOLDER MANAGEMENT				
ACTIVITIES	1	2	3	4	5	6	7	8	9				
A Implementation of KNPS SCEP													
1. Establish a SCEP.	[R]	[S]											238-28 requirements for KNPS to establish a SCEP that include Level 1 suppliers.
2. Establish and maintain the SCEP.	[A]	[R]	[C]	[C]	[I]								The maintenance of the SCEP includes the safety culture plan (SCP) which details the safety culture enhancement activities.
3. Commitment to Safety.	[R]	[C]	[I]	[I]	[I]								238-28 – This Nuclear Safety Management Programme focuses on the integration of its key elements to ensure that safety is not compromised. Its principles will be used to promote good nuclear safety, radiological safety, occupational safety, environmental safety, and security consciousness. 32-727, KAA 598 – Safety, Health and Environmental Management System.

WORK FLOW RESPONSIBILITY MATRIX

APPENDIX 1:
KNPS SAFETY CULTURE PROCESS

R – Responsible
A – Approve
F – File
• – Outside Matrix Scope
Y/N or N/Y – Decision
C – Concur
I – Informed
S – Service
[ ] – Mandatory Requirement
( ) – As Appropriate/Required
Flow Path:
Main Flow ⟷ Secondary Flow

SAFETY CULTURE PLAN

ACTIVITIES	1 POWER STATION MANAGER	2 ISED	3 HEAD OF DEPARTMENT	4 HEAD OF GROUP	5 STAFF	6 PLANT TRAINING DEPARTMENT	7 TD&RM	8 OPERATING EXPERIENCE GROUP	9 STAKEHOLDER MANAGEMENT	10 QUALITY ASSURANCE MANAGER	11	12	13	14	**NOTES & REFERENCES**
B Selection, Training and Competence															
1. Ensure that Safety Culture Traits is integrated into selection, training and competence processes.		[C]	[R]	[I]		[S]									32-1023 KSA-049 KSA-119 KSA-122
C Communication and Awareness															
1. Communicate relevant Safety Culture information on the station.		[R]			[I]				[S]						240-131691121
D Individual Awareness/ Questioning Attitude															
1. Demonstration of individual awareness and questioning attitude.			[C]	[C]	[R]										KSA-122 KSA-119
2. Ensure integration of individual awareness and questioning attitude in KNPS processes.	[C]	[R]	[S]	[S]	[I]										KSB-005 335-3 KAA-832 KAA-501 KAA-721 KAA-667
E Safety Leadership															
1. Leaders demonstrate a commitment to safety in their decisions and behaviours.	[R]	[C]	[C]	[C]	[C]										238-28 KAA-665 KAA-687 KAA-789 KAA-789 KAA-730 KAA-598 KAA-778 KGA-097

WORK FLOW RESPONSIBILITY MATRIX	**APPENDIX 1: KNPS SAFETY CULTURE PROCESS**

R – Responsible
A – Approve
F – File
• – Outside Matrix Scope
Y/N or N/Y – Decision
C – Concur
I – Informed
S – Service
[ ] – Mandatory Requirement
( ) – As Appropriate/Required
Flow Path:
Main Flow ⟷ Secondary Flow

	SAFETY CULTURE PLAN														**NOTES & REFERENCES**
	POWER STATION MANAGER	ISED	HEAD OF DEPARTMENT	HEAD OF GROUP	STAFF	PLANT TRAINING DEPARTMENT	TD&RM	OPERATING EXPERIENCE GROUP	STAKEHOLDER MANAGEMENT	QUALITY ASSURANCE MANAGER					
ACTIVITIES	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	
2. Leaders demonstrate a commitment to safety in practicing visible leadership.	[R]	[C]	[S]	[S]	[I]										KGA-078 KGA-091
F Acceptance of Rules															
1. Controlling documents that specify requirements or prescribe how activities important to safety and quality are controlled.	[C]	[I]	[R]	[I]		[I]	[S]								335-2 KSA-011 KAA-500 KSA-038
G Audits and Reviews															
1. Ensure an internal SCEP audit programme.		[C]								[R]					KAA-833
2. Ensure an internal SCEP management review programme.		[C]	[S]	[S]	[S]					[I]			[R]		238-129 – KGA-053
3. External Audit and Reviews.	[R]	[C]	[I]	[I]	[I]										SHE Management System Audit: NOSA integrated management audits Safety Management System Reviews: WANO OSART SABS NSA

WORK FLOW RESPONSIBILITY MATRIX	**APPENDIX 1: KNPS SAFETY CULTURE PROCESS**

R – Responsible
A – Approve
F – File
• – Outside Matrix Scope
Y/N or N/Y – Decision
C – Concur
I – Informed
S – Service
[ ] – Mandatory Requirement
( ) – As Appropriate/Required
Flow Path:
Main Flow ⟷ Secondary Flow

	SAFETY CULTURE PLAN														**NOTES & REFERENCES**
ACTIVITIES	1 POWER STATION MANAGER	2 ISED	3 HEAD OF DEPARTMENT	4 HEAD OF GROUP	5 STAFF	6 PLANT TRAINING DEPARTMENT	7 TD&RM	8 OPERATING EXPERIENCE GROUP	9 STAKEHOLDER MANAGEMENT	10 QUALITY ASSURANCE MANAGER	11	12	13	14	
H Monitoring and Assessment															
1. Ensure Safety Culture monitoring at KNPS.	[C]	[R]													Event, audit and review reports will be evaluated by the Safety Culture Co-ordinator for possible safety culture improvement.
I Continual Improvement															
1. Internal and External Events Evaluation and processing of internal and external industry operational experience to prevent and to mitigate the effects of events.	[R]	[C]	[I]	[I]	[I]			[S]							KAA-688 KGA-035 KAD-025 KGA-051 36-220
J Control of Safety Culture Enhancement															
1. Establish and maintain control of Safety Culture Enhancement.		[R]	[C]	[I]	[I]				[I]			[S]			
2. Produce a plan that details Safety Culture Enhancement.	[C]	[R]	[I]	[I]	[I]					[I]					

APPENDIX 2

TRAITS OF A HEALTHY NUCLEAR SAFETY CULTURE (from INPO 12-002)

The traits described in this document are divided into three categories that are similar to the three categories of safety culture in International Nuclear Safety Advisory Group (INSAG)-4, Safety Culture. The categories and their primary traits are as follows:

- **Individual Commitment to Safety**
  - — Personal Accountability (PA)
  - — Questioning Attitude (QA)
  - — Effective Safety Communication (CO)
- **Management Commitment to Safety**
  - — Leadership Safety Values and Actions (LA)
  - — Decision-Making (DM)
  - — Respectful Work Environment (WE)
- **Management Systems**
  - — Continuous Learning (CL)
  - — Problem Identification and Resolution (PI)
  - — Environment for Raising Concerns (RC)
  - — Work Processes (WP)

APPENDIX 3

JUSTIFICATION

Revision 0

1. New procedure demonstrating the implementation and monitoring of Safety Culture at KNPS in accordance with 238-28, Nuclear Division Safety Culture Programme. (LI 73981)

Revision 1

1. Periodic review.

2. Review the procedure as per the requirements of – CR 103445-002 CA and CR 113998-004 CA.