Eskom	ADMINISTRATIVE PROCEDURE	Allocation Centre 38A	Reference Number KAA-688	Rev 19
NNR: NO **No.:**	THE CORRECTIVE ACTION PROCESS			PAGE 1

KORC	ACCESS	IMPORTANCE CATEGORY	NEXT REVIEW DATE	DATE AUTHORISED
NO	Nuclear Restricted	NSA	2023-06-30	2020-06-30

COMPILED/REVISED	REVIEWED	AUTHORISED
(sgd) K BETHEL	(sgd) S BAILEY	(sgd) A STEPHANUS
K BETHEL	S BAILEY	A STEPHANUS
SENIOR ADVISOR ISED	CAP MANAGER	ISED MANAGER
DATE: 2020-06-29	**DATE:** 2020-06-29	**DATE:** 2020-06-30

THIS PROCEDURE HAS BEEN SEEN AND ACCEPTED BY:

C Bester Document Custodian

S-CAR Members

FCA	ALARA REVIEW	SUPERSEDES
DEFICIENCIES AND CORRECTIVE ACTION	NO	KAA-688, Rev 18 dd. 2019-05-02 FULL REVIEW

PAGE STATUS INDEX

	REVISION							
Page	18	19						
1	x	x						
2	x	x						
3	x	x						
4	x	x						
5	x	x						
6	x	x						
7	x	x						
8	x	x						
9	x	x						
10	x	x						
11	x	x						
12	x	x						
13	x	x						
14	x	x						
15	x	x						
16	x	x						
17	x	x						
18	x	x						
19	x	x						
20	x	x						
21	x	x						
22	x	x						
23	x	x						
24	x	x						
25	x	x						
26	x	x						
27	x	x						
28	x	x						
29	x	x						
30	x	x						

	REVISION							
Page	18	19						
31	x	x						
32	x	x						
33	x	x						
34	x	x						
35	x	x						
36	x	x						
37	x	x						
38	x	x						
39	x	x						
40	x	x						
41	x	x						
42	–	x						
43	–	x						
44	–	x						
END								

CONTENTS PAGE

1.0 PURPOSE

1.1 To describe the process and responsibilities for identifying, reporting, investigating and trending occurrences, problems, events, conditions and near misses for Koeberg Nuclear Power Station.

1.2 To ensure that operating experience information is effectively identified, screened, classified, investigated, distributed and tracked to identify actions to improve nuclear safety, conventional safety, health and environment, prevent events from recurring and ensure continuous improvement.

1.3 To establish uniform practices for reporting, recording, classifying, investigating and closing out occurrences, problems, events, conditions and near misses.

2.0 SCOPE

2.1 Applicable to all persons working within Koeberg Nuclear Power Station when an occurrence, problem, event, or near miss arises that impacts on nuclear safety, generating reliability, or poses economic, environmental, health and safety risk and adverse trends as identified by station trend reports.

3.0 DEFINITIONS AND ABBREVIATIONS

3.1 Definitions

3.1.1 **ActionWay** – The Corrective Action Management software used to capture, monitor and trend Condition Reports for KOU.

3.1.2 **Adverse Trend** – Repetition of similar events to the extent that further investigation and additional management attention may be warranted.

3.1.3 **Analysis** – A full and detailed investigation to establish the root causes and/or organisational weaknesses of the event and the appropriate preventive and corrective actions.

3.1.4 **Apparent Cause** – A cause of an event or issue which, if corrected, will reduce the likelihood and/or consequences of future similar events or issues. Recurrence prevention is not expected, as the objective is to reduce risk to acceptable levels.

3.1.5 **Assessment** – A basic investigation methodology to determine the direct cause of the event.

3.1.6 **CAPco** – Corrective Action Program Co-ordinator. A line group or department representative authorised to manage the corrective action process issues for their group or department.

3.1.7 **Component Failure** – A failure of any plant component to meet its required performance standard (e.g. a leaking gland that requires nipping up is not a failure – a leaking gland that requires repacking is a component failure).

3.1.8 **Condition Report** – The means of reporting a problem, performance gap, event, occurrence, near miss into the KOU corrective action process.

3.1.9 **Conditional Release** – A recorded action that allows an item to be used for a specific application in accordance with pre-determined conditions and limitations. It also initiates a tracking mechanism of non-conforming items on the plant.

3.1.10 **Corrective Action Review Meeting** – A senior management review of the Significant Events Investigation Report and Corrective Action Programme Health/Oversight.

3.1.11 **Corrective Actions** – Action taken after a condition is identified that restores it to an acceptable condition of capability and is associated with apparent and contributory causes. Corrective actions can also be allocated to direct causes at the discretion of the line group or S-CAR.

3.1.12 **Corrective Actions to Prevent Recurrence** – Actions taken to prevent recurrence of the root cause of the event and only associated with root cause analysis investigations.

3.1.13 **Department CAR** – A department level forum to review CAP items for that department.

3.1.14 **Direct Cause** – The most basic action, omission or condition that produced or led to the event (e.g. direct cause for the water spill is that the valve leaked).

3.1.15 **Economic Risk** – The possibility of financial loss to Koeberg.

3.1.16 **Effectiveness Review** – A review to ensure that the issue initially investigated and assigned corrective actions as directed by S-CAR was resolved as intended.

3.1.17 **Evaluation** – The investigation methodology to determine the Apparent Cause of the event. Apparent Cause evaluation required investigation of Programmatic and Organisational Issues.

3.1.18 **Final Close Out** – A final close out report classification is granted when an investigation is completed and all Corrective Actions have been implemented.

3.1.19 **General Actions** – Actions taken to improve or enhance a programme, process, or procedure. General Actions are not used as corrective actions to address root, apparent, or contributing causes.

3.1.20 **Investigation Team** – A team sponsored by a Senior Manager supported by a Subject Matter Specialist and a trained/authorised Root Cause Analysis Investigator constituted for events where an Analysis-level investigation is required.

3.1.21 **KEG Principal** – An individual who has been trained in event investigations to identify root causes, apparent causes and direct causes, and is authorised in accordance by the PSM.

3.1.22 **Lead Investigator** – The group responsible for co-ordinating and performing the investigation.

3.1.23 **Learning Group** – The group identified benefiting the most from the learning points of the event.

3.1.24 **Minor Event (M)** – An event that has minor actual negative impact to the plant or nuclear safety.

3.1.25 **Non-Compliance** – Unintentional/intentional infringement, breach or non-observance of a principle, standard. (Koeberg will only use the term non-compliance and the severity grading in KLA-005).

3.1.26 **Non-Conformance** – A condition of plant, equipment or material that does not satisfy the specification, design or operating criteria, which requires an engineering evaluation.

3.1.27 **Non-Conformity** – ISO 9000:2015 defines a nonconformity as a nonfulfillment or failure to meet a requirement. A requirement is a need, expectation, or obligation. It can be stated or implied by an organization or interested parties.

3.1.28 **Occurrence, Problem, Incident, Condition, Event or Near-Miss**:

- any uncontrolled/undesired event that results in or may result in hazard to personnel, damage to equipment or the environment.
- is directly prejudicial to nuclear safety, man made or natural with origins either internal or external to the plant;
- constitutes a potential nuclear safety hazard, or a precursor to an accident;
- is of such a nature as to be likely to arouse public concern, or to lead to adverse media coverage even though it may not necessarily be nuclear related;
- may have no nuclear safety impact but affects the availability and or the operability of the nuclear power plant.
- Does not necessarily result in actual consequences.

3.1.29 **Organisational Weakness** – Previously undetected deficiencies in organisational processes or values or equipment that create conditions that provoke error or degrade the integrity of defences.

3.1.30 **Plant Event (P)** – An event that directly affects the operations of the plant, but does not have significant nuclear safety implications.

3.1.31 **Process Type Administrator** – A person with ActionWay access responsible for updating the specific process type status, including date change and closure.

3.1.32 **Process Type Owner** – The person responsible for a specific process type.

3.1.33 **Prompt Investigation** – An initial investigation performed within the first 24 working hours from when an event is identified, initiated by the PSM, for the purposes of identifying immediate necessary recovery or mitigation actions.

3.1.34 **QANC** – A Quality Assurance nonconformity raised from a Quality Assurance monitoring activity and registered as a Condition Report on Actionway.

3.1.35 **QAOBS** – A Quality Assurance observation raised from a Quality Assurance monitoring activity and registered as a General Action on Actionway. An observation is a statement of fact made during an audit and substantiated by objective evidence, which does not necessarily arise from a standard/directive or requirement.

3.1.36 **Recurring Event** – An event of low significance which was trended and has recurred.

3.1.37 **Repeat Event** – An event similar in cause or consequence to a existing CR that had been investigated at either Evaluation or Analysis level in the previous 3 years. The investigation of a Repeat Event should address possible investigation deficiencies and/or ineffective corrective actions from the previous event.

3.1.38 **Restoration Corrective Action** – Action which restores a non-conforming condition to an acceptable condition (i.e. removes the non-conformance).

3.1.39 **Risk** – Probability of an injury, damage or loss.

3.1.40 **Root Cause** – The fundamental underlying cause(s) that, when corrected will prevent recurrence of an inappropriate action or equipment failure that results in a consequential event or condition.

3.1.41 **Root Cause Methodology** – Any recognised investigation methodology used to identify root causes, performance problems, organisational weaknesses or adverse trends.

3.1.42 **Significant Event(S)** – Any event that has significant negative impact on nuclear safety or plant reliability, or results in loss of life or negative public image.

***NOTE**: During any classification exercise the problem is assessed against the most severe categories first. It is acknowledged that the grading of events is conservative.*

3.1.43 **Trending (T) Event** – An event that has no actual consequences.

3.1.44 **Trending Investigation Type** – No investigation required, only coding applied for trending purposes.

3.1.45 **Violation** – Intentional infringement, breach or non-observance of a principle, standard or procedure. (*The term violation is to be used by the NNR only when they deem an event as intentional. Koeberg will only use the term non-compliance and the severity grading in KLA-005*).

3.2 Abbreviations

3.2.1 **CA** – Corrective Action

3.2.2 **CAPco** – Corrective Action Programme co-ordinator

3.2.3 **CAPR** – Corrective Action to Prevent Re-occurrence

3.2.4 **CAR** – Corrective Action Review Meeting

3.2.5 **CE** – Component Engineering Group

3.2.6 **CF** – Component Failure items

3.2.7 **CR** – Condition Report items

3.2.8 **CSR** – Critical Safety Related

3.2.9 **D-CAR** – Department CAR Meeting

3.2.10 **EA** – Engineering Action items

3.2.11 **EDF** – Electricité de France

3.2.12 **EFR** – Effectiveness Review Reports

3.2.13 **EP** – Emergency Plan items

3.2.14 **EPR** – Engineering Problem Report

3.2.15 **GA** – General action items

3.2.16 **HOD** – Head of Department

3.2.17 **HOG** – Head of Group

3.2.18 **INES** – International Nuclear Event Scale

3.2.19 **ISED** – Independent Safety Evaluation Department

3.2.20 **KEG** – Koeberg Event Group

3.2.21 **KNLD** – Koeberg Nuclear Licensing Department

3.2.22 **KNPS** – Koeberg Nuclear Power Station

3.2.23 **KORC** – Koeberg Operations Review Committee

3.2.24 **LAN** – Local Area Network

3.2.25 **LCO** – Limiting Condition of Operation

3.2.26 **LD** – Licence Document (NNR)

3.2.27 **LI** – Licensing Issue items

3.2.28 **M** – Minor (Event Category)

3.2.29 **MW** – Maintenance Waivers

3.2.30 **MWP** – Megawatt Park

3.2.31 **NC** – Non Conformance items

3.2.32 **NCR-CA** – Restoration Corrective Action related to an NC

3.2.33 **NEXCO** – Nuclear Executive Committee

3.2.34 **NI** – Nuclear Safety Assurance items

3.2.35 **NNR** – National Nuclear Regulator

3.2.36 **NSA** – Nuclear Safety Assurance

3.2.37 **OCC** – Outage Control Centre

3.2.38 **OE** – Operating Experience

3.2.39 **OH** – Occupational Health (conventional safety) items

3.2.40 **OH & S** – Occupational Hygiene & Safety

3.2.41 **OH & S Act** – Occupational Health and Safety Act

3.2.42 **OPN** – Operability Problem Notification

3.2.43 **OTS** – Operating Technical Specifications (OPS 7030)

3.2.44 **P** – Plant (Event Category)

3.2.45 **PSM** – Power Station Manager

3.2.46 **QA** – Quality Assurance

3.2.47 **QANC** – Quality Assurance Nonconformity

3.2.48 **QAOBS** – Quality Assurance Observation

3.2.49 **QC** – Quality Control

3.2.50 **QD** – Quality Deficiency

3.2.51 **S** – Significant (Event Category)

3.2.52 **SAP** – Systems Applications Products

3.2.53 **SAP QIM** – SAP Quality Issues Management system

3.2.54 **S-CAR** – Station CAR Meeting

3.2.55 **SHE** – Safety Health and Environment

3.2.56 **SQITR** – Station Quarterly Integrated Trend Report

3.2.57 **T** – Trend (Event Category)

3.2.58 **TD & RM** – Technical Documentation and Records Management

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

3.2.60 **WE** – World Experience Items

4.0 REFERENCES

4.1 Referenced Documents

4.1.1 32-95, Rev 8: Occupational Health and Safety Incident Management Procedure

4.1.2 238-35, Rev 0a: Radiation Protection Dose and Risk Limits

4.1.3 238-47, Rev 0a: Radiological Environmental Surveillance Requirements

4.1.4 238-54, Rev 0: Radiation Protection Licensing Requirements for KNPS

4.1.5 240-143501787, Rev 1: Koeberg Nuclear Power Station Licensing Processes

4.1.6 240-64257586, Rev 2: Generation Issue Management Work Instruction

4.1.7 335-2, Rev 5: Koeberg Nuclear Power Station Management Manual

4.1.8 ESKPVABA0, Rev 0: Events Reportable in terms of the International Nuclear Events Scale (INES)

4.1.9 K5964N: NNR Letter

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

4.1.11 KAD-025, Rev 2: Processing of Operating Experience

4.1.12 KGA-035, Rev 4: Processing of Experience Feedback Received Through the EDF Co-operation Agreement

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

4.1.14 Legal Registers, as applicable

4.1.15 ISO 9001:2015 Quality Management Systems - Requirements

4.2 Applicable Documents

4.2.1 INES IAEA Document: The International Nuclear Event Scale Users Manual

4.2.2 KAA-583: The Provision and Application of First Aid and Emergency Care

4.2.3 KAA-685: INES Evaluation and Reporting

4.2.4 KAA-690: Operability Determinations

4.2.5 KAA-743: Identifying, Accessing and Implementing Legal and Other SHE Requirements

4.2.6 KAA-832: Quality Assurance Monitoring Processes

4.2.7 KAA-840: Non-conformance (NC) Process

4.2.8 KAA-850: Koeberg Nuclear Power Station Safety Culture Enhancement Programme

4.2.9 KFA-071: Request for NCR-CA Extension

4.2.10 KGA-076: Performing Trending and Trending Analysis

4.2.11 KGA-085: Effectiveness Reviews

4.2.12 KGA-089: Management Oversight of the Corrective Action Program

4.2.13 KGA-094: Event Investigators Guide

4.2.14 KGA-097: Station Event-Free Clock Program

4.2.15 KLA-005: Koeberg Event Classification and Reporting Criteria Listing

4.2.16 LD-1000: Notification Requirements for Occurrences Associated with Koeberg Nuclear Power Station

4.2.17 MN-01: WANO Reference Manual - Operating Experience Programme

4.2.18 RD-0025: Emergency Communication with the National Nuclear Regulator (k10000657N)

5.0 RESPONSIBILITIES

5.1 It is the responsibility of all individuals working at Koeberg Nuclear Power Station to ensure the identification and accurate reporting of occurrences, problems, incidences, conditions, events and near misses within 48 hours of the occurrence, problem, incidence, condition, event or near miss, or the discovery thereof.

5.2 The respective “process type owners” are responsible for ensuring that this procedure is correctly implemented, maintained and reviewed and that accurate information and statistics are available. The ISED Manager is responsible for ensuring the overall document remains current.

The Process Administrators are responsible for capturing the relevant coding to their items in ActionWay.

5.2.1 CRs relevant to conventional safety shall be categorised as OH.

5.2.2 Component Failures shall be categorised as CF. Component Engineering is responsible for the investigation and trending of component failures, establishing failure causes, preventive actions and corrective actions, including the assessment or the impact on the Maintenance Programme.

5.2.3 Engineering Non Conformances shall be categorised as NC, and are the responsibility of Plant Engineering and controlled by procedure KAA 840. (NC and CR processes to be administered separately).

5.2.4 NCR-CAs are Restoration Corrective Actions to an NC raised by Engineering that removes the non-conformance. NCR-CAs can be extended by completion of form KFA-071 (Request for NCR-CA extension).

5.2.5 Quality Assurance are responsible for creating QANCs (QA nonconformities) resulting from their monitoring activities, and registering them as Condition Reports.

5.2.6 Quality Assurance is responsible for the final verification and closure of condition reports stemming from QANCs.

5.2.7 Quality Assurance are responsible for creating QAOBS (QA observations) resulting from their monitoring activities, and registering them as General Actions.

5.2.8 Security department shall ensure that the ActionWay reference number is cross-referenced on their system for confidential CRs.

5.2.9 Nuclear Safety Assurance are responsible for creating NI's for all Issues Requiring Attention from their reviews.

5.3 The Operating Shift Manager is responsible for:

5.3.1 Performing all notifications directly to the NNR and the Power Station Manager, Operating Manager, Emergency Controller, Koeberg Licensing Manager and Radiation Protection (Health Physics) Controller that require immediate or 24 hour notification, or immediate investigation. Condition Reports (electronic or paper) to be updated with notification information.

5.3.2 Evaluating incoming CRs for any possible Operability Determinations. If there is an operability concern, the Operating Shift Manager shall evaluate the equipment to determine if there is a further concern with common cause or a common mode failure. Appropriate actions to be taken to mitigate associated risks.

5.3.3 Initiating immediate investigation by retracting involved individuals from active duty pending investigation and commencing immediate data gathering such as personnel statements, relevant and paper data. This may entail calling in additional assistance such as an independent investigator, the Station Psychologist, Ops Training and / or Ops Support personnel.

5.4 The Plant Manager is responsible for deciding on the need for an independent investigator to start with immediate interviews and data collection in the event of a potentially significant event.

5.5 The CAP Manager is responsible for:

- Appointing a KEG Chairman to co-ordinate the daily KEG meeting.
- Determining the non-compliance scoring for the non-compliance indicator.
- Co-ordinating the line group CAPco function by: (example)
  - Maintaining updated list of all line CAPcos
  - Co-ordinating CAPco training

  - Monitoring attendance and participation at KEG
  - Co-ordinating correspondence to CAPCos
- Administering the CAPco forum
- Co-ordinating the administration of S-CAR
- Identifying Repeat Events and capturing such in ActionWay
- Managing the CAP Health Indicator
- Sanctioning upgrades of General actions to Corrective Actions if deemed of high enough nuclear safety significance. These issues shall be reported to the S-CAR meeting.

5.6 The KEG Chairman is responsible for:

- Co-ordinating the daily KEG meeting.
- Grading Repeat and trended CRs, which may, at the KEG Chairman's discretion, be elevated to a higher grading as appropriate. CRs are to be ratified by S-CAR.
- Identifying non-compliance issues to ensure that the classification of these items is verified by the relevant Koeberg Custodian and that the PSM is informed.
- Informing Operations Manager of any CRs that are upgraded from the Ops Shift Managers' initial grading by the KEG Committee.
  (Note – this excludes T and M graded CRs)

5.7 The S-CAR Committee is responsible for:

- Ratifying the grading and investigation type of CRs from the KEG committee meetings held in the week prior to S-CAR.
- Reviewing Analysis and selected Evaluation reports (typically for multidisciplinary events). This includes evaluation reports from departments where a D-CAR is not yet established.
- Approving CAR Charters for Analysis reports to support the assignment of the relevant individuals for the initial week of the investigation.
- Reviewing SOER reports, Effectiveness Reviews, Common Cause, Trend Reports, Focussed Self-Assessment and Benchmarking plans and reports.
- Reviewing CRs for any potential trends.
- Advising S-CAR Chairman on downgrades of Investigation Type reports (i.e.) from Evaluation to Assessment.

- Advising S-CAR Chairman on changes to line group assignment of CRs.
- Advising S-CAR Chairman on changes to CAs and CAPRs from CR reports.
- Reviewing corrective actions periodically to ensure validity and relevance, in line with the Industry Cumulative Impact report.
- Endorsing the construct of the CAP Health Indicator.

5.8 The S-CAR Chairman is responsible for:

- Ratifying the grading and investigation type of CRs from the KEG committee meetings held in the week prior to S-CAR.
- Approving Analysis, and selected Evaluation reports (typically for multidisciplinary events). This includes evaluation reports from departments where a D-CAR is not yet established.
- Approving SOER reports, Effectiveness Reviews, Common Cause and Trend Reports.
- Approving downgrades of Investigation Type reports (i.e.) from Evaluation to Assessment.
- Approving changes in line group assignment of CRs.
- Approving changes to CAs and CAPRs from CR reports.
- Coordinating the senior management team review of all Analysis level investigations prior to CAR submission.

5.9 Line CAPco's are responsible for:

- Promoting reporting of CRs.
- Reviewing daily CR list.
- Attending daily KEG meeting.
- Participating in the KEG committee grading and coding of CRs.
- Managing CAP items and indicators for their group(s).
- Co-ordinating the administration of the D-CAR, as relevant.
- Closing of all Assessments and Evaluations approved for closure by the relevant D-CAR/HOD in ActionWay.
- Raising of all CA's and GA's from such reports into ActionWay, and relevant Interim and Final EFRs as required.
- Reviewing CA and GA closure information, and closing the CA's/GA's in ActionWay.

- Perform trending and identifying adverse trends for issues relating to their groups.
- Providing CAP with inputs to the Station Quarterly Integrated Trend Report.
- Attending the Root Cause Analysis training.
- Attending the CAPco forum.
- Performing investigations as assigned by respective group managers.

5.10 The D-CAR committees are responsible for:

- Reviewing and Approving all Assessment and Evaluation reports for that department
- Reviewing and approving all Self-Assessment reports for that department
- Reviewing and approving all Effectiveness Review reports for that department
- Reviewing all that departments' inputs to SQITR
- Reviewing all trending analysis for that department
- Reviewing all open and due actions for that department (CAPR, CA and GA type)
- Reviewing the CAP Health indicator for that department
- Managing all items for which that department is the process custodian (e.g.) Plant Eng D-CAR for all NC and CF type items

5.11 Department Managers (HODs) are responsible for:

- Managing their departments' CAP by:
- Reviewing all completed reports from the Department for CAP quality. (See NOTE on D-CARs, below)
- Reviewing CAP Health Indicator for the Department, and taking appropriate actions
- Ensuring all CAs and CAPRs for the Department are properly closed with adequate detail in ActionWay.
- Processing all CA extension requests for the Department as routed by ActionWay.

NOTE: *All HODs are advised to establish a formal D-CAR on a frequency suited to that departments' CAR items.*

5.12 Line Management are responsible for:

- Managing their groups' CAP by:
- Identifying a CAPco for their group. The CAPco is required to be a competent, experienced individual with credibility with the group and familiar with the processes and practices of the group.
- Closing out CAs and GA's in ActionWay, and ensuring that the close-out is properly implemented as intended.

5.13 CAP is responsible for:

- Compiling the Station Quarterly Integrated Trend Report (SQITR)
- Presenting the SQITR to S-CAR for discussion and agreement on actions
- Presenting the Self-Assessment programme to S-CAR
- Updating ActionWay and SQITR with the agreed actions from S-CAR
- Attending KEG Committee
- Ensuring a consistent application of classification, coding and keywords by KEG members.

5.14 An Analysis level investigation shall be performed into all events where the Root Causes of the event need to be determined. This shall be performed by an Investigation Team.

5.15 An Evaluation shall be performed by Line Group Investigators as assigned, for all events where it is determined that Apparent Causes of the event need to be determined.

5.16 Assessments investigations will be performed by line groups.

5.17 KEG Principals shall assist part-time line investigators, as required, but responsibility for the investigation remains with the line-group.

5.18 Koeberg Nuclear Licensing Department is Responsible for:

- Raising LIs/CAs from incoming NNR correspondence as required
- Raising LIs/CAs on outgoing correspondence to NNR based on Line Group's intent
- Linking new LI/CAs to previous CAs if additional NNR issues arise

6.0 PROCESS

6.1 For details on the process, refer to Workflow Responsibility Matrix (Appendix 1).

6.2 For details on the investigation report format, refer to KGA-094: Event Investigators Guide.

For details on Trending, refer to KGA-076: “Performing Trending and Analysis”.

6.3 General Process for all Problem Types

The term CR (Condition Report) is used to denote all categories of ActionWay problem types.

Condition Report is the ActionWay process flow for CAP items that are required to be graded, coded, investigated and are inputs to the SQITR.

Sub-Condition Report Types on ActionWay include:

- CR - Condition Report General
- CR-CF - Component Failure
- CR-NC - Non-Conformance
- CR-OH - Conventional Safety
- CR-NI - IRA’s from NSA Evaluations
- CR-QA - Quality Assurance nonconformities from QA Audits

6.3.1 A Condition Report (CR) is to be raised for any problem, occurrence, event, anomaly or incident that has (or has the potential to have) negative consequences for Koeberg Nuclear Power Station or impacts on conventional or nuclear safety that is within the concern and/or influence of Koeberg Nuclear Power Station.

6.3.2 A CR can be raised by any employee or contractor. Appendix 10 provides broad guidance on CR reporting.

6.3.3 A CR can be either hand-written on a Condition Report form available on the LAN, or completed electronically on ActionWay.

6.3.4 A CR should be raised within 48 hours of the occurrence, problem, incident, condition, event or near-miss.

6.3.5 The Event Date of a CR is the date of discovery of the occurrence, problem, incident, condition, event or near-miss.

6.3.6 If the individual who has identified the CR is not from the line group responsible for the issue or process relating to the CR, it is desirable that the group head and/or CAPco of the relevant group be notified of the CR. This is to allow more detail and accuracy to be captured in the initial CR.

NOTE: *This should not prevent the CR from being reported.*

6.3.7 The Operating Shift Manager shall determine if the information provided is sufficient and contact the initiator if detail is lacking.

6.3.8 The Operating Shift Manager shall perform a review of the submitted CR and assign an initial grading in accordance with KLA-005 to CRs that have a plant impact or notification requirements.

- CRs that do not have a plant impact or notification requirements do not require an initial grading by Ops Shift Manager.
- The CR shall be graded according to information contained in the Condition Report and not verbal information.
- The Operating Shift Manager will also determine whether the CR requires an Operability Determination, or if it is a Non-conformance. If so, he shall evaluate the equipment to determine if there is a further concern with common cause or a common mode failure.

6.3.9 The Operating Shift Manager shall perform any required notifications for events with notifications requirements that fall before the next scheduled KEG committee meeting as per KLA-005.

6.3.10 All Condition Reports with a NNR notification requirement shall be transmitted to the NNR via the Koeberg Licensing Department using the official communication process. (KAA-831 – Koeberg Nuclear Licensing Process. (For “24 hrs” and “ASAP” this is for information only as prior notification will have taken place).

6.3.11 The line group CAP co-ordinator will review all new CRs relating to their group and assemble additional information as may be needed to assist the accurate coding and grading of the CR at the daily KEG committee meeting.

6.3.12 The KEG committee shall propose the grading, the INES rating, and the applicable trend coding, and assign the investigating group and the learning group for each event.

6.3.13 The KEG committee shall propose what level of investigation is required for the CR (see Appendix 2).

- It is desirable that for minor type events the close-out information is included with the CR. The KEG committee shall review and ratify the information. If satisfactory, the CR shall be closed on ActionWay for trending only (no investigation required).

6.3.14 Potential non-compliance events are to be confirmed by groups having oversight on the impacted processes.

6.3.15 Potential plant status control events are to be confirmed by the Ops HP.

6.3.16 Potential Station or Departmental HP CLOCK events are to be confirmed by CAP.

6.3.17 CRs will be reviewed at the next S-CAR meeting to ratify the grading, investigation type and investigation group as proposed by the KEG Committee.

6.3.17.1 To change the line group assigned to the investigation, the relevant line manager must make a motivation to the KEG Chairman. The KEG Chairman shall inform S-CAR of any such changes. Should there be a dispute as to the line group assigned to the investigation, S-CAR will make the final decision.

6.3.17.2 To change the investigation type (i.e.) downgrade from Evaluation to Assessment, an Assessment report must be completed on the CR and presented to S-CAR by the relevant line manager. Downgrades are agreed at S-CARs' discretion.

6.3.18 The CAP group shall capture all additional data on the CRs onto the ActionWay database.

6.3.19 CR investigations and close outs shall be completed within the specified deadlines in accordance with Appendix 4.

6.3.19.1 If other issues are identified during the course of an investigation, the investigator can choose to include it in the scope of the original CR, or raise a new CR on the discovered issue, and make note of this in the original CR investigation report.

6.3.20 All Analysis, Common Cause, Effectiveness Reviews, focussed Self-Assessment reports, and selected Evaluation reports are to be submitted to S-CAR for approval before they can be closed on ActionWay.

6.3.21 All Evaluation and Assessment reports are to be approved by the relevant department manager before closing on ActionWay. Where a D-CAR has been established, this forum will take precedence in reviewing and approving items over the HOD in his/her individual capacity.

NOTE: *If the cause can only be determined at a future date due to equipment becoming available during outages, or where determination of cause is dependent on OEM, the CR can be flagged as "Management Exception" in ActionWay by the CAP group, and a new due date for the Investigation manually assigned. This allows the CR to continue in Investigation Phase, without impacting that groups' CAP Health Indicator.*

6.3.22 Corrective Actions (CAs), Corrective Actions to Prevent Recurrence (CAPRs) and General Actions (GAs) are captured into ActionWay by CAP group for Evaluations and Analysis reports approved by S-CAR; or by the relevant CR type administrators.

6.3.23 Corrective Actions (CAs), Corrective Actions to Prevent Recurrence (CAPRs) and General Actions (GAs) are captured into ActionWay by the CAPco for Evaluations and Analysis reports approved by the relevant D-CAR/HOD. This includes CAs from OH items, and the relevant CAs and EFRs for NIs.

6.3.24 Before general actions and corrective actions are assigned to a group, the item shall be discussed with the CAPco or Group Head and agreement reached on the actions to be performed and due date of the action. Agreement is to be proven by obtaining a signature or an electronic confirmation from the actioned party (i.e. e-mail attached to the report).

6.3.24.1 Should a line group identify that a CAPR or a CA cannot be implemented as intended, the relevant line manager must present a motivation to S-CAR for the CAPR or CA to be changed. The motivation must reference the original investigation and prove to S-CARs' satisfaction that the change will not weaken the barriers to prevent a recurrence.

6.3.24.2 CAP will update ActionWay with the changes to the CAPR or CA once S-CAR has given agreement.

6.3.25 When a CA cannot be completed with the due date, a CA Extension is required. The CA Escalation policy applies to all CAs in ActionWay. Approval for first extension is required from the action Group Manager. Second extension must be approved by the Department Manager. Third extension approval requires approval from the Power Station Manager, or relevant E Band.

6.3.26 Extensions to CAPRs may only be processed by CAP group with the documented consent of the PSM or relevant E Band. Documented rationale must be provided.

6.3.27 Close-out of CAPRs is to be authorised by the Senior Manager Sponsor of the Analysis investigation. See Appendix 7 for guidance on closure of corrective actions.

6.3.28 S-CAR will perform a periodic review of all open corrective actions in ActionWay to validate their applicability. S-CAR will support CAs to be closed if their value cannot be substantiated, and their close-out is justifiable. This is in line with current industry practices.

6.4 Spares Anomalies

6.4.1 For spares anomalies requiring a conditional release, a "NC" type item shall be raised on ActionWay with details of the conditional release when these items are to be installed on the plant.

6.5 Security Related Events

6.5.1 Security related events and/or problems that require secure/confidential handling shall be entered using only generic or non-specific statements, and shall be marked “Confidential”. Investigation reports will be kept as records in the security confidential filing system.

6.6 Safety, Health and Environmental Issues

6.6.1 All safety, health and environmental issues are to be reported into ActionWay as CR-OH items.

6.6.2 CR-OH items will be processed in accordance with the CAP process.

6.7 Nuclear Safety Assurance Issues

6.7.1 NSA will raise an NI on ActionWay for each IRA (Issue Requiring Attention) identified by NSA during their reviews.

6.7.2 These NI’s will be captured as Assessment Investigation Type, and assigned to the relevant group.

6.7.3 The relevant line group will identify the specific actions necessary to address the IRA (NI), draft an assessment report with station-identified success factors, and discuss the IRA with NSA to obtain agreement. The report will be submitted to the relevant D-CAR for processing.

6.7.4 The CAPco shall capture the report and all actions into ActionWay. These actions must have a due date and action owner.

6.7.5 Once all the CAs loaded against the NI-CR have been completed, the CR will move to Review For Completion status in DevonWay, actioned for the line group.

6.7.6 The line group manager (or assignee) shall review the overall IRA and current status after the completion of all corrective actions.

- Should the reviewer decide that the IRA is resolved, the CR can be COMPLETED in Devonway by documenting the rationale for the closure, captured in the COMMENTS of the CR. This will close the CR. (The basis upon which the reviewer concludes that the IRA is resolved must be captured in detail.)
- Should the reviewer decide that the IRA is not yet resolved and additional actions are required, the review conclusions must be captured in the COMMENTS of the CR, and additional CAs must be added to the parent-CR as required to resolve the IRA.

6.7.7 If NSA deems an IRA as not resolved at the next scheduled related evaluation, NSA will raise a new Repeat IRA. The subsequent assessment report for the repeat IRA must be submitted to S-CAR for approval.

6.8 Quality Assurance issues

6.8.1 QA will register each monitoring activity (audit or surveillance) as a General Action (Type: General; QA-Audit).

6.8.2 QA will raise either a QANC or a QAOBS on ActionWay for each identified nonconformity or observation raised by QA during their reviews.

6.8.3 The QANCs will be captured as Assessment Investigation Type, and assigned to the relevant group.

6.8.4 The relevant line group will identify the specific corrective actions (CAs) necessary to address the QANC, draft an assessment report, submit and discuss the corrective actions with QA to obtain agreement. The report is to be submitted to QA within 25 days from CR initiation. The CAs require approval by the relevant line manager and QA.

6.8.5 The CAPco shall capture the approved report, which has been signed off by QA, and all actions onto Actionway. These actions must have a due date and action owner.

6.8.6 Once the line groups have completed the actions, obtained D-CAR approval and the CAs have been closed, the line CAPco processes the CR to QA for closure.

6.8.7 In the case of a QANC, there is a two-step process for QA to close the CR. The first step is a Review for Closure, and if QA is satisfied that the CA was implemented correctly, then QA processes the CR to *Approve for Closure* status. Completing this step will close the QANC CR.

6.8.8 If the QA deems the CAs as ineffective, the CAs will be re-opened by CAP on QA's request and a rollback of the CR will be effected.

6.9 WANO Reporting

6.9.1 Site events that must be reported to WANO are covered by Appendix 8A and 8B.

7.0 RECORDS

7.1 ActionWay shall be deemed to be the official log of all occurrences, problems, event data/information.

7.2 All relevant paper work raised in connection with an analysis or evaluation investigation must be attached to the relevant CR or GA in ActionWay and archived as a permanent record. Examples are investigation reports, corrective actions raised, log sheets, printouts, recorder charts etc.

7.3 The associated documentation must be retained as a lifetime record by TD & RM.

8.0 ATTACHMENTS

Appendix 1 – Work Flow Responsibility Matrix: The Condition Report (CR) Process

Appendix 2 – Type of Investigations

Appendix 3 – Grade of Events

Appendix 4 – Guidelines for Investigation Response Times

Appendix 5 – Criteria and Process for Reporting of Koeberg Events into SAP QIM

Appendix 6 – Non-compliance Scores

Appendix 7 – Guidance for the Close-out of CA's

Appendix 8A – Work Flow Responsibility Matrix: The Process for Reporting Events to WANO

Appendix 8B – Template for Reporting Events to WANO

Appendix 9 – Application for Access Rights for the Updating and Operation of ActionWay

Appendix 10 – Guidance on CR Reporting

Appendix 11 – Justification

WORK FLOW RESPONSIBILITY MATRIX

APPENDIX 1
THE CONDITION REPORT (CR) 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

ACTIVITIES	ORIGINATOR	SHIFT MANAGER	PSM	KEG CHAIRMAN		CAP GROUP	LEAD GROUP/INVESTIGATOR	SENIOR MANAGER/HOD	DEPARTMENT CAR/REVIEW AUHTORITY	LINE GROUP (CAPco's)	STATION CAR	CAP MANAGER	NOTES & REFERENCES
	1	2	3	4	5	6	7	8	9	10	11	12	
1. Identify and report using the electronic CR system or CR Form.	[R]									[I]			See Appendix 10 for guidance on CR reporting.
2. The Operating Shift Manager shall perform a review of the submitted CR and assign an initial grading in accordance with KLA-005 to CRs that have a plant impact or notification requirements. CRs that do not have a plant impact or notification requirements can be forwarded to the KEG group without grading. Initiate action and notify (including the NNR). Add any immediate actions necessary.		[R]											In accordance with KLA-005. For Significant Events KEG to inform PSM of proposed grading within 24 working hours.
3. Raise an Operability Determination) if there is an operability concern.		[R]											Refer to KAA-690. Evaluate for common cause/common mode failure. Raise an NC.
4. CAP group will process CR's to KEG workflow step.						[R]							A prompt investigation may be initiated for relevant CR's.
5. Review for grading and event codes.										[R]			Ensure CR information is complete and accurate, and that immediate actions taken are recorded.
6. At the daily KEG Committee meeting, review and assign trending information. Verify the Classification, Type of Investigation and Problem Type.				[C]		[C]				[R]			In accordance with Appendix 2 and 3. Non-compliances to be referred to the relevant Koeberg custodians for concurrence Legal – GMR2 License – KNLD OTS – ISED (Safety Engineer) PSR – OPS Support The custodian response must be recorded in ActionWay as justification for final grading.
7. Review Generation Reporting requirements.				[R]		[C]							As per Appendix 5 (SAP QIM).
8. Allocate INES and non-compliance rating, where applicable. Assign a WANO Classification if applicable.				[C]		(S)						[R]	See MN 01: WANO Reference Manual Operating Experience. INES classification in accordance with the INES user's manual and KAA-685. For non-compliance rating see Appendix 6.

WORK FLOW RESPONSIBILITY MATRIX

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I – Informed
S – Service
[ ] – Mandatory Requirement
( ) – As Appropriate/Required
Flow Path:
Main Flow ⟷ Secondary Flow

ACTIVITIES	ORIGINATOR	SHIFT MANAGER	PSM	KEG CHAIRMAN		CAP GROUP	LEAD GROUP/INVESTIGATOR	SENIOR MANAGER/HOD	DEPARTMENT CAR/REVIEW AUHTORITY	LINE GROUP (CAPco's)	STATION CAR	CAP MANAGER	NOTES & REFERENCES
	1	2	3	4	5	6	7	8	9	10	11	12	
9. If non-compliance to KLBM (S7.6, S3, P3.1 orP3.5), or General Non-compliance then use Appendix 6 to determine non-compliance score.												[R]	Inform PSM with rationale Inform CAP to capture for trending.
10. Provide CR list at S-CAR meeting.						[R]							For ratification of grading, investigation and group. KGA-089.
11. Update ActionWay				[R]							(I)		
12. Investigate in accordance with Appendix 2.							[R]						(Types of Investigations).
13. Prepare a report in the prescribed format.				[C]			[R]			[C]			KGA-094.
14. CAPco to "Complete" the Investigation work flow and attach the report, in preparation for CAR approval.									[R]				
15. Present the report to the relevant authority for review.									[R]				Refer to Appendix 2 (Types of Investigation) Refer to Appendix 4 (for related reviews and approval) Capture CAR comments and conclusion.
16. Is the report an Analysis or an Evaluation for S-CAR review?											N/Y		
17. If the report is an Analysis or Evaluation, submit to the respective CAR.											[R]		All Analysis and selected Evaluation reports are to be reviewed by S-CAR. If a report is Accepted by CAR, CAP group will Complete the CR record in ActionWay. If report is Accepted With Comments, CAP group to assign appropriate authority for Approve for Closure. The CR will be directed back to the Investigating group to Review for Closure to address CAR comments. Upon completion of this review, CAP group will process the Approve For Closure, and the CR will be closed. If a report is rejected by S-CAR, the CR will rollback to Investigate step, and the clock for investigation timeline will continue. The investigation group are to complete the report and re-submit to CAR.

WORK FLOW RESPONSIBILITY MATRIX

APPENDIX 1
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Y/N or N/Y – Decision
C – Concur
I – Informed
S – Service
[ ] – Mandatory Requirement
( ) – As Appropriate/Required
Flow Path:
Main Flow ⟷ Secondary Flow

ACTIVITIES	ORIGINATOR	SHIFT MANAGER	PSM	KEG CHAIRMAN		CAP GROUP	LEAD GROUP/INVESTIGATOR	SENIOR MANAGER/HOD	DEPARTMENT CAR/REVIEW AUTHORITY	LINE GROUP (CAPco-ordinators)	CAR	CAP MANAGER	NOTES & REFERENCES
	ORGANISATION/FUNCTION												
	1	2	3	4	5	6	7	8	9	10	11	12	
18. Update Report and ActionWay to flag the required Effectiveness Review for all Analysis and selected Evaluation reports.						[R]					[I]		KGA-085. CAP group will raise an EFR on the CR record in ActionWay for the relevant action owner.
19. Capture corrective actions/ general actions and notify responsible group.						[R]							CA's to be marked CAPR or CA in ActionWay. Update ActionWay from the report (Approved by S-CAR).
20. Monitor open corrective actions and prepare statistics.						[R]				[R]			CA's and GA's from all other ActionWay problem types shall be managed according to this process.
21. Complete actions and enter comments on ActionWay.						(S)				[R]			Line Response. CA to be closed out by Group Managers or authorised delegates.
22. Verify CA closure.										[R]			Verify close-out with relevant authority.
23. Perform effectiveness review as directed by S-CAR.										[R]	[C]		The completed effectiveness review must be reviewed by S-CAR.
24. Update system, produce relevant feedback information and maintain data integrity.						[R]							
25. Provide close-out reports to appropriate bodies (WANO, NNR and Eskom).						[R]							Transmit to NNR in accordance with LD 1000 in accordance with KAA-685.
26. Coverslip and archive the finalised report with TD & RM.	(I)					[R]							All relevant information for analyses and evaluation investigations. Include effectiveness review report where applicable. Security confidential reports retained in the security filing system.

APPENDIX 2

TYPE OF INVESTIGATIONS

NOTE: *The grading of a CR is merely a guide to the level of investigation required. The level of investigation is decided at the KEG committee and ratified by S-CAR, with consideration for factors such as:*

- *The actual consequences of the event*
- *The potential consequences of the event*
- *The extent to which the causes of the event is already known and understood*
- *The extent to which future similar events must be prevented from recurring.*

ANALYSIS

An analysis of information to identify root causes and/or organisational weaknesses, and corrective/preventive actions.

To be performed by a root cause investigation team, led by a Senior or Line Manager, with support from a Subject Matter Specialist and a trained/authorised root cause analysis investigator. Individuals assigned to the investigation will be dedicated to the investigation for a minimum of the first week of the investigation.

A review of the full investigation findings and RCA worksheets by the senior management team will be co-ordinated by the CAR Chairman. This is to ensure the team are apprised of the findings and to determine appropriate actions.

Events requiring full root cause investigations typically:

- Significant (S) type Events
- Selected Plant (P) type Events (as determined by S-CAR)
- Selected Adverse trends as determined by S-CAR.

APPENDIX 2 (continued)

TYPE OF INVESTIGATIONS

EVALUATIONS

Evaluation of information to identify Apparent Causes, Failed Barriers and Precursors, and Corrective/Preventive actions.

To be performed by trained Line Group Investigators.

Events requiring evaluations typically:

- Plant (P) type Events
- Selected Minor (M) type Events as determined by S-CAR.
- Selected Adverse trends as determined by S-CAR.

COMMON CAUSE

- To address adverse trends
- Either at evaluation (apparent cause) or assessment (direct cause) level.

EVENT ASSESSMENTS

Assess to determine direct cause.

To be performed by Line Group investigators.

Events requiring assessments typically:

- M Events.
- Adverse trends
- Quality Assurance nonconformities

TRENDING

No investigation to be performed, but CR to be coded in accordance with event based cause categories for trending purposes. Typically would be T, M or P classified events that do not require investigation, but are used to establish adverse trends.

APPENDIX 3

GRADE OF EVENTS

S Events

An event of severity and significance that is on par with the events specified in Appendix 1 of KLA-005.

P Events

An event of a lesser severity and significance that is on par with the events specified in Appendix 2 of KLA-005.

M Events

An event of minor severity that is on par with the events specified in Appendix 3 of KLA-005.

T Events

An event that has no actual consequence but is noteworthy for reporting and trending purposes. This includes near misses and notification of adverse conditions that could negatively impact the plant and or staff in accordance with Appendix 4 of KLA-005.

APPENDIX 4

GUIDELINES FOR INVESTIGATION RESPONSE TIMES

1. Guidelines for the expected completion times for investigation reports and levels of approval.

NOTE: *All formal reports are to be in the respective templates.*

EVENT LEVEL	**INVESTIGATION REQUIREMENTS**		
	TIME	**FEEDBACK REQUIREMENT**	**APPROVAL**
Analysis	3 days or next S-CAR	Charter to S-CAR	S-CAR
	40 days	(Verbal) Workshop of investigation findings with senior management team	N/A
	45 days after Charter	Formal report	S-CAR
Evaluation	45 days	Formal report	D-CAR and S-CAR for cross-functional Evaluations or where D-CAR not established
Common Cause	45 days	Formal report	D-CAR (if established) and S-CAR
Prompt Investigation	Compile within 24 hours, present at subsequent S-CAR	Formal report	S-CAR
Assessment	30 days, except for QANCs in which case the line groups have 25 days to submit the report to QA, to allow sufficient time for the QA review prior to the 30 day due date	Formal report	D-CAR or line manager and QA in the case of QANCs.
Trending	Closed	No investigation required. Information used for trending purposes.	
OH&S	30 days	Formal report	Group Head

NI	30 days	Formal report	NEW IRA – Line Manager and Continuing IRA – S-CAR
NC	60 days	Formal report	PE CAR
OTHER ISSUES	60 days	Formal report	PE CAR
QANC	25 + 5 days	Formal report	D-CAR or line manager and QA
WANO reports	??	Preliminary report	KIT Manager
	??	Final report	KIT Manager

NOTE: *For Analysis Investigations, the 45 days will commence once the Charter has been approved by S-CAR. For all other investigation types, the deadline commences from the KEG Review date in ActionWay. S-CAR reserves the right to regrade an occurrence, depending on the information supplied in the Investigation Report. S-CAR may request that KEG reconsider the grading of an event.*

APPENDIX 5

CRITERIA AND PROCESS FOR REPORTING OF KOEBERG EVENTS INTO SAP QIM

First consideration to be given to the following 240-64257586 Level 1 and 2 criteria:

Level 1 (Major) incident
Technical

Plant/asset damage exceeds R10 million (Present Year Currency, e.g. Mechanical, C&I, Electrical, Civil or Fire Damage.

- Incidents that have caused maximum generation load interruptions, emergency generation, use of gas turbines and load shedding.

Non-technical

- The death of an employee, member of the public or a contractor.
- Physical harm to a person(s) or a member of the public requiring hospitalisation.

Level 2 (Significant) incident

- Plant/asset damage more than R2 m but less than R10 m (Present Year Currency, e.g. Mechanical, Instrumentation, Electrical, Civil or Fire Damage).
- Load loss (considered significant by the Power Station Manager).

Non-technical

- Non-routine security responses, including interventions by the SAPS
- An incident considered Eskom-noteworthy by SGM (Koeberg Operating Unit) and/or the PSM
- Conventional Safety event (of P or S level)
- Environmental impact event (of P or S level)

And

- Where S-CAR assigned investigation type is Evaluation or Analysis level;

And

- The KLA-005 grading is P or S level;

And

- Where the technical consequences or causes of the event are not specific to the primary system (i.e.) equipment and components common to both Koeberg and other Eskom generating power stations.

APPENDIX 5 (continued)

CRITERIA AND PROCESS FOR REPORTING OF KOEBERG EVENTS INTO SAP QIM

Only CRs graded P or S, at Evaluation or Analysis level, on the non-primary systems, that meet one of the selected criteria of 240-64257586 Level 1 or 2 will be reported on SAP QIM.

Process for reporting:

Action	Responsible	Timeline
Establish if Koeberg CR meets the reporting requirements of this document	CAP/OE	Within 48 hrs of report date in ActionWay.
Maintain a register of events to be reported to SAP QIM – update with all new events for tracking purposes.	OE	n/a
Assign report – writer (within CAP)	CAP Manager	n/a
Review draft report	CAP Manager	50 calendar days after ActionWay report date
Send final report via GroupWise to SAP QIM custodian	OE	60 calendar days after ActionWay report date
Confirm receipt and logging in SAP QIM	SAP QIM custodian	10 working days after receipt

APPENDIX 5 (continued)

CRITERIA AND PROCESS FOR REPORTING OF KOEBERG EVENTS INTO SAP QIM

Report Format for reporting of Koeberg Events to SAP QIM

SAP QIM – Koeberg event

Title of the event: (short, concise, overall title)

Event Date:	(**ActionWay CR Number)**
Reference:	**(KLA-005 grading)**
Koeberg grading:	Koeberg, Unit *
Component:	**(the equipment/component affected)**

SUMMARY:
(short statement of event, 2-3 sentences giving the issue, mode of discovery, actual and potential consequences, and causes)

DESCRIPTION:
(if necessary – more detail on the event/sequencing than the Summary allows. If Summary covers it all, leave this out.

CONSEQUENCES:
(impact on plant and production, and staff)

INVESTIGATION FINDINGS/COMMENTS:
(short description of what the investigation uncovered)

CAUSES:

- (telegraph-style statement on the causes i.e. – procedure non-compliance to K******/inadequate supervisory oversight/deficiency in procedure detail…)
-
-

CORRECTIVE ACTIONS:

- (the corrective action as it appears in ActionWay) CA/GA no: (ActionWay #)
- CA/GA no:_____
- CA/GA no:_____

For further information on this event, contact:

Steven Bailey
Koeberg Corrective Action Program Manager
Email: baileys@eskom.co.za
Tel: 021 27 550 5476

APPENDIX 6

NON-COMPLIANCE SCORES

CR No.:_____

Event Description:

Significance:

Actual Consequence:

Frequency:

Organisation/Process:

Immediate Actions Taken:

This event is a non-compliance of _____

Points	**10**	**5**	**5**	**2**	**2**	**1**	**0**	**0**
	high	**high**	**high**	**med**	**med**	**med**	**low**	**low**
Significance	**X**	**X**	**X**	**X**	**X**	**X**	**X**	
Consequence	**X**	**X**	**X**		**X**			
Frequency	**X**	**X**		**X**				
Organisation	**X**		**X**					

Significance Take potential consequence into account for significance
Consequence Only actual consequences
Frequency Not used for PSR or OH&S type non-compliance
Organisation Used if this situation spread throughout organisation or several process affected

Final Score:
Rational for Score:
Signed: CAP Manager

APPENDIX 7

GUIDANCE FOR THE CLOSE-OUT OF CA's

CAs are determined to be inappropriately closed if, by the detail captured in ActionWay on the CA, it is established that:

- The action is not complete or was closed on intent.
- All aspects of CA not covered/not addressed/not considered.
- Insufficient or no objective evidence/reference/records/proof.
- Intent/purpose of CA not met/not addressed/not effective.

Such CAs will be reopened.

Accountability for the effective close-out of CA resides with the individual whose name appears in ActionWay as Verifier. It is this individuals' responsibility to ensure that the close-out information in ActionWay for each CA is detailed, accurate and auditable. From the information captured in ActionWay it should be possible for an external party to validate the implementation and effectiveness of the action.

For example (but not limited to)

CA	DETAIL REQUIRED FOR APPROPRIATE CLOSURE
Procedure change/revision	Include procedure number with revision number, detail of what changes made and authorisation date, and date available on Excalibur.
Drawing change/revision	Include drawing number, detail of what changes made and authorisation date.
Training	Identify the training audience, give the dates that training was given, a copy of or a reference where the training material can reviewed, a copy of or a reference where the training attendance records may be found.
Action taken on plant	State the action take (i.e.) valve replaced. Give the SAP notification number and the date of execution, and any relevant history.
Modification	State the nature of the modification, the mod number, its station priority, and date of completion.
Inspection	State the specific purpose and scope of the inspection, names and designations of inspectors, date inspection carried out and the results and conclusions of the inspection.
Awareness	State the content of the message, the medium used, the intended audience and records or evidence to prove the actual audience reached.
OE	State the date and forum where the OE was shared, the audience, provide the content.

NOTE: *If a CA cannot be completed as written in ActionWay, the relevant line group must provide a motivation to S-CAR stating explicitly why the CA cannot be implemented, and propose a change that will provide equal assurance to S-CAR that the risk of recurrence is addressed*.

WORK FLOW RESPONSIBILITY MATRIX	APPENDIX 8A THE PROCESS FOR REPORTING EVENTS TO WANO

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

ACTIVITIES	1 ISED MANAGER	2 CAP MANAGER	3 KIT MANAGER	4 OE TECHNICIAN	5 REPORT COMPILER	6 CAP CLERK	7	8	9	10	11	12	NOTES & REFERENCES
1. Review station CRs to identify suitable events to report to WANO as OE.	[C]	[R]		(S)									It is desirable that 3 reports are submitted to WANO per month Type of events should include • Significant Events • Technical events on inadequate equipment performance • Significant human performance events • Fuel failures or indications of cladding or fuel failures (SOER 90-2 and 03-2) • Unit Power Excursions Events of interest to the industry where lessons can be shared.
2. Flag the selected items on the CR in ActionWay.						[R]							The report is to be compiled, reviewed and sent to WANO within 50 days of the event. If all relevant information is not available by this time, a preliminary report can be sent
3. Assign the WANO report to a Report Compiler.		[R]											
4. Report Compiler to compile the WANO report in the prescribed template.					[R]								Report Compiler to liaise with the event investigator to ensure factual information Remove all Koeberg specific terminology and trigrammes Use internationally accepted terms, and the WANO cause categories (KGA-094) Use the WANO Template (appendix 8b)
5. Review.		[C]	[R]	(C)									Ensure the information is accurate, stated in appropriate terminology and meets the expected WANO standard
6. Send the report to WANO						[R]							This can be done by uploading the report onto the WANO OE Programme Manager, Atlanta office.

APPENDIX 8B

TEMPLATE FOR REPORTING EVENTS TO WANO

Unit, Year Commercial: Koeberg, Unit 1, 2 (1984, 1985)
Reactor Type (size): PWR, (920 MWe)
Reactor Manufacturer: Framatome
Plant Designer: Westinghouse

*** Note:*	*****As a minimum these items should be completed for all Preliminary WERs*
**** Event Date:**	Enter date event occurred or discovered. (dd/mm/yyyy)
****Title:**	Enter title and include the most important aspect of the event.
****Reference Unit:**	Enter the single unit on which the event occurred.
****Station Event:**	State if this was a station event or a single unit event.
Summary:	Enter a brief summary of what went wrong, consequences and cause.
Event units:	List all the units affected by the event.
References:	List events, reports or documents related to this event.
Report description:	Enter an in-depth description of what happened.
****Consequences:**	Enter an in-depth description of the consequences of the event.
Report Analysis and Comments:	Enter the answer for why the event occurred.
Corrective Actions:	Enter a description of corrective actions taken and planned.
INES Level:	Enter the INES level assigned to the event, 0 if none assigned.

CODED FIELDS:

Field	Code	Description
Station Status:		
Station Activity:		
Direct cause:		
Category:		
Consequence(s)*:		
System(s)*:		
Component(s)*:		
Group(s)*:		
Root cause(s)*:		
Causal factor(s)*:		
List Attachments:		

*** can have more than one code**

Plant Information Contact:
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APPENDIX 9

APPLICATION FOR ACCESS RIGHTS FOR THE UPDATING AND OPERATION OF ACTIONWAY
(This is for individuals requiring CAPco level rights in ActionWay)

I,_____, have read the procedure KAA-688 (The Corrective Action Process) and understand my duties with regards to the CAP Process.
Details required for access rights to ActionWay are:

Unique Number: _____

LAN ID: _____

Group: _____

***** Please ensure that you are conversant with the attachments to KAA-688. Your knowledge of the process will be verbally tested.

I understand the responsibilities assigned to me in the rights to operate ActionWay effectively and I shall abide by the requirements as stipulated in KAA-688.

_____ _____
Signed by Applicant Date

_____ _____
Approved by Line Manager Date

_____ _____
Authorised by Line Representative/CAR Chairperson/ISE Manager Date

_____ _____
Accepted by CAP Manager Date

APPENDIX 10

GUIDANCE ON CR REPORTING

This appendix serves to provide broad guidance on the type of conditions, issues, occurrences, incidences and events that are to be reported into the CAP programme.

Note: this is not a fully inclusive list, but serves as guidance as to the type and consequence of an item to be reported into the CAP programme.

The CAP programme is a means for the organization to learn. It requires inputs of conditions, issues, occurrences, incidences etc. that are experienced or discovered by all workers (ESKOM and contractors) of all levels and in all fields. Anything that impacts or has the potential to impact the KOU people, plant, or processes has value in the CAP programme.

The purpose of CAP is to analyse a quantity of inputs to determine possible trends that can be actioned before the issue escalates into a consequential event. This can only happen effectively when there is a consistent and low threshold of reporting (i.e.) that all workers report issues even if they do not experience a direct consequence.

The CAP programme accommodates plant and non-plant/non-technical issues; and all levels of severity from non-consequential (a typical “near-miss”) to significant consequence.

Every CR will receive a Severity grading (T, M, P or S) and an Investigation Type (Trending, Assessment, Evaluation or Analysis) depending on its detail. It will also be assigned relevant Event Based Codes that distinguish the type of issue and is used for trending.

The following are examples to serve as guidance as to the type of issues that are to be reported:

Signposting: (Radiation, Safety or general signage and notices)

- Not present when required
- Put up too late
- Put in wrong place
- Incorrect for situation
- Removed too early
- Not removed after situation resolved

Documentation: (Technical work instructions, service notifications, administrative procedures, guides)

- Do not exist
- Not available
- Not used
- Not correct for the situation
- Misleading
- Incomplete
- Ambiguous
- Out of date
- Misplaced/misfiled
- Wrong revision
- Wrong procedure used
- Incorrect section of procedure referenced

APPENDIX 10 (continued)

GUIDANCE ON CR REPORTING

Planning (POD, Outage, projects)

- Plan not adhered to
- Plan incorrect
- Plan changed
- All parties not notified of or included in the plan
- Plan not updated from changes
- Planning structures not attended
- Plan milestones missed

Facilities

- LAN not available
- Audio/visual hardware not available
- Audio/visual hardware not working
- Quality of food from canteen
- Office equipment broken
- Office equipment not available
- Office building issues
- Birds in the office
- Plant doors not operational
- Plant doors damaged
- Plant telephones not operational
- Laboratory equipment not operational
- Security equipment not available

Near Misses

- Nearly went to wrong unit
- Nearly went to wrong component
- Nearly tripped/fell/slipped/bumped/burned…(safety type near-misses)
- Nearly discarded sample
- Nearly performed wrong analysis
- Nearly left off FME caps

Communication

- Incorrect information conveyed
- Inadequate information conveyed
- Communication mediums not available
- Communication mediums not operational
- Information not conveyed timeously
- Information conveyed to wrong persons

APPENDIX 10 (continued)

GUIDANCE ON CR REPORTING

Authorisations

- Expired

Safety

- PPE not worn
- PPE not available
- PPE not correct for type of work
- PPE not operational/faulty
- PPE worn incorrectly
- PPE not correctly identified for work scope
- Unsafe working behaviors
- Unsafe working conditions
- Potentially unsafe conditions/behaviours
- Safety training not adequate
- Safety training not attended
- Safety information incomplete
- Stuck lifts

Stores and warehousing

- Items stored incorrectly
- Items stored in wrong place
- Spares not labeled correctly
- Wrong spares issued
- Wrong spare requested
- Spares documentation incorrect
- Spares documentation incomplete
- Shelf-life expiry
- Missed date of spare delivery
- Wrong items delivered
- Issued spare not fit for purpose
- Storage conditions

Miscellaneous

- Missed rounds (security, ops, chemistry, RP)
- Administrative errors
- Ammunition/weapons storage issues
- Visitor/delivery hosting issues

Any of the above on its own could be a non-consequential event, or could be an S level event. The only differences are the other circumstances.

The purpose of CRs is not to gripe or moan or blame others, but to record that something happened, that could possibly have been avoided – and in doing so, assist in ensuring that it doesn't happen again. In this manner we can improve our performance, safety and production.

APPENDIX 11

JUSTIFICATION

Revision 18

1. Remove references to 36-220, KAA-824 and KGA-092.

Revision 19

1. Full Review.
2. Amendments to NI process by NSA.
3. Inclusion of detail on QA CR processing by QA.
4. Inclusion of responsibilities for immediate investigations.
5. Add NCR-CA definition.
6. Remove all references to NSEG and replace with CAP.