	Procedure	Kriel Power Station
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Title **EMS Planning Procedure**

Document Identifier **RER 0206**

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Functional Area **Environment**

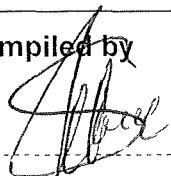
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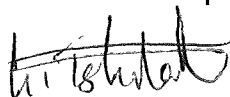
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Date 26.02 2025

Functional Responsibility



Initials and Surname

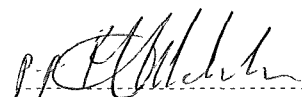
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Date 26/02/2025

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Kriel Power Station:
General Manager

Date 26/02/2025

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When the model of a continuous-time system is sampled, this is equivalent to the possibility loss with the

from [10], [11], [12], [13], [14], [15], [16], [17], [18], [19], [20], [21], [22], [23], [24], [25], [26], [27], [28], [29], [30], [31], [32], [33], [34], [35], [36], [37], [38], [39], [40], [41], [42], [43], [44], [45], [46], [47], [48], [49], [50], [51], [52], [53], [54], [55], [56], [57], [58], [59], [60], [61], [62], [63], [64], [65], [66], [67], [68], [69], [70], [71], [72], [73], [74], [75], [76], [77], [78], [79], [80], [81], [82], [83], [84], [85], [86], [87], [88], [89], [90], [91], [92], [93], [94], [95], [96], [97], [98], [99], [100], [101], [102], [103], [104], [105], [106], [107], [108], [109], [110], [111], [112], [113], [114], [115], [116], [117], [118], [119], [120], [121], [122], [123], [124], [125], [126], [127], [128], [129], [130], [131], [132], [133], [134], [135], [136], [137], [138], [139], [140], [141], [142], [143], [144], [145], [146], [147], [148], [149], [150], [151], [152], [153], [154], [155], [156], [157], [158], [159], [160], [161], [162], [163], [164], 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[594], [595], [596], [597], [598], [599], [600], [601], [602], [603], [604], [605], [606], [607], [608], [609], [610], [611], [612], [613], [614], [615], [616], [617], [618], [619], [620], [621], [622], [623], [624], [625], [626], [627], [628], [629], [630], [631], [632], [633], [634], [635], [636], [637], [638], [639], [640], [641], [642], [643], [644], [645], [646], [647], [648], [649], [650], [651], [652], [653], [654], [655], [656], [657], [658], [659], [660], [661], [662], [663], [664], [665], [666], [667], [668], [669], [670], [671], [672], [673], [674], [675], [676], [677], [678], [679], [680], [681], [682], [683], [684], [685], [686], [687], [688], [689], [690], [691], [692], [693], [694], [695], [696], [697], [698], [699], [700], [701], [702], [703], [704], [705], [706], [707], [708], [709], [710], [711], [712], [713], [714], [715], [716], [717], [718], [719], [720], [721], [722], [723], [724], [725], [726], [727], [728], [729], [730], [731], [732], [733], [734], [735], [736], [737], [738], [739], [740], [741], [742], [743], [744], [745], [746], [747], [748], [749], [750], [751], [752], [753], [754], [755], [756], [757], [758], [759], [760], [761], [762], [763], [764], [765], [766], [767], [768], [769], [770], [771], [772], [773], [774], [775], [776], [777], [778], [779], [780], [781], [782], [783], [784], [785], [786], [787], [788], [789], [790], [791], [792], [793], [794], [795], [796], [797], [798], [799], [800], [801], [802], [803], [804], [805], [806], [807], [808], [809], [810], [811], [812], [813], [814], [815], [816], [817], [818], [819], [820], [821], [822], [823], [824], [825], [826], [827], [828], [829], [830], [831], [832], [833], [834], [835], [836], [837], [838], [839], [840], [8

1. Introduction

This document is critical and required to ensure that the planning process for Environmental Management System (EMS) at Kriel Power Station undertaken based on a defined, documented and standardised process which conforms with requirements of ISO14001 2015 standard

2. Supporting Clauses

2.1 Scope

2.1.1 Purpose

This document is intended to outline Kriel Power Station's processes to comprehensively manage actions to address risks and opportunities (clause 6 1), as well as environmental objectives and plans to achieve those objectives (clause 6 2) as required by clause 6 of ISO14001 2015 standard. In terms of actions to address risks and opportunities, this procedure will, firstly, provide the process plan through which risks and opportunities will be determined (clause 6 1 1), secondly, outline the process for determining the environmental aspects associated with Kriel Power Station's activities, products and services (under station's control and those under station's influence), and their associated environmental impacts bearing in mind a life cycle perspective (clause 6 1 2), thirdly, provide compliance obligation and compliance evaluation planning information (clause 6 1 3 & 9 1 2), and lastly, it will provide the action planning process as required by clause 6 1 4 ISO14001 2015 standard. In terms of environmental objectives and plans to achieve those objectives (clause 6 2), this procedure will outline the process through which they should be established and the process to be followed when establishing actions to achieve the aforementioned objectives.

This document is also intended to explain the process for determining aspects significance. It should further be used as a reference document to determine the aspects/impacts significance rating (high, medium, low significance).

2.1.2 Applicability

This procedure is applicable to all Kriel Power Station's departments and appointed contractors whose activities, products and services may have impacts on the environment.

2.1.3 Effective date

This document will be effective from the date of authorization.

2.2 Normative/Informative References

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs:

- RER 0363 - Kriel EMS Manual and plan
- RER 0364 - Kriel Environmental Statement of Intent
- 32-727 – SHEQ Policy

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- RER0204 - Kriel Power Station Aspects & Impacts Register
- RER0231 - Kriel Power Station Objectives
- RER0367 – Risk & Opportunity Register [Including Compliance Obligation changes register]
- RER0368 - Kriel Power Station's Contextual Issues Register
- ISO 14001 2015 - Environmental Management Systems – Clause 6, Clause 4 1, Clause 4 2, 4 3, Clause 5 & Clause 9 1 2

2.3 Definitions

Term	Definition
Environmental Management System	Part of the management system used to manage environmental aspects, fulfil compliance obligations, and address risks and opportunities
Environmental Policy	Intentions and direction of an organization related to environmental performance, as formally expressed by its top management
Top Management	Person or group of people who directs and controls an organization at the highest level
Interested Party	Person or organization that can affect, be affected by, or perceive itself to be affected by a decision or activity
Environmental Aspect	Element of an organization's activities or products or services that interacts or can interact with the environment
Environmental Condition	State or characteristic of the environment as determined at a certain point in time
Environmental Impact	Change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization's environmental aspects
Environmental Objectives	Set by the organization consistent with its environmental policy
Compliance Obligations	Legal requirements that an organization has to comply with and other requirements that an organization has to or chooses to comply with
Procedure	It is a uniform method that outlines how to perform a process, such as how you control internal and external functions of the organisation
Risk	Effect of uncertainty
Risk & Opportunities	Potential adverse effects (threats) and potential beneficial effects (opportunities)
Life Cycle	Consecutive and interlinked stages of a product (or service) system, from raw material acquisition or generation from natural resources to final disposal

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Outsource	Make an arrangement where an external organization performs part of an organization's function or process
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2.4 Abbreviations

Abbreviation	Description
ISO	International Organisation for Standardization
EMS	Environmental Management System
KPS	Kriel Power Station
AEL	Atmospheric Emissions Licence
KMT	Kriel Management Team
R&O	Risk and opportunity
CoE	Centre of Excellence
CAPA	Corrective and Preventative Action
QIM	Quality Issue Management

2.5 Roles and Responsibilities

Top Management:

- Reviews significant environmental aspects and associated objectives, and provide direction to ensure continual improvement
- Provide all necessary support (e.g. resources, training, etc.)

Head of Departments and Line Managers:

- Managers at all levels of the organisation are responsible for leading and initiating environmental improvement activities within their own areas of responsibility
- Responsible for ensuring that the control measures documented in the aspects & impact register are implemented
- Ensure that all team members understand the environmental aspects, compliance obligations, objectives, risk and opportunities as well as required actions to achieve intended outcome associated with departmental activities

Environmental Practitioner:

- Support all departments and contractors in the process of establishing, implementing and maintaining EMS planning requirements (Risk & Opportunities, Aspects register, etc)
- Communicate the changes on significant environmental aspects to Top Management and allow to influence

All Employees:

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- Must ensure that all the planning requirements as stipulated in this procedure are implemented effectively

2.6 Related/Supporting Documents

- RERO206 revision 19 is superseded by this document

Related/supporting documents which shall be referenced

- *RER0204 - Kriel Power Station Aspects & Impacts Register*
- *RER0231 - Kriel Power Station Objectives*
- *RER0367 – Risk & Opportunity Register [Compliance Obligation changes register]*
- *RER0368 - Kriel Power Station's Contextual Issues Register*
- (RER0245) - Legal Verification Register
- (RER0043) - Internal and external communication

3. Procedure

3.1 Risk and Opportunities

3.1.1 DETERMINATION AND MANAGEMENT OF RISKS AND OPPORTUNITIES

- **IMPORTANT** Risks or threats may easily turn into complications and they should therefore be monitored and managed accordingly Kriel Power Station can be able to avoid or reduce risks by minimising the consequence or probabilities of risks
- For example risks can be managed by replacing a high risk activity (risk) with a low risk activity (opportunity) and by also removing the risk if possible Risks can also be removed by adding risk evasion activities to the way we work
- Risks and Opportunities associated with the following elements must be determined
 - Environmental aspects,
 - Compliance obligations and
 - Issues and requirements from the context review
- Probability factor shall be used to define risk and opportunity
- Experience and available data on the elements mentioned in bullet 3 above will play a critical role in the assessment process to determine and classify the risks and opportunities
- Every risk presents an opportunity to improve, hence risks must be mitigated before turning into incidents in order to achieve continual improvement and enhancement of the EMS
- Not all Risks and Opportunities(R&O) can be prioritized at once, therefore a risk and opportunity assessment method to assist with R&O classification has been developed and available in the relevant registers (**refer to R&O Assessment Criteria documented in RER0367, RER0245 & RER0368**).
- Hereunder is a simplified risk and opportunity assessment criteria adopted by Kriel Power Station to ensure prioritization

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Risk/Threat Assessment

Consequence (What will happen if the risk becomes a problem?)	X	Probability (What is the probability that the risk will become a problem?)
$Risk(R) = C * P$		

Opportunity Assessment

Value (What will happen if the opportunity becomes a reality?)	X	Probability (What is the probability that the opportunity will be realized?)
$Opportunity(O) = V * P$		

- Using experience and available data, risk and opportunities shall be determined and assessed from the aspects and impacts register (RER0204), Kriel's Contextual Issues Register (RER 0368) and legal verification register (RER0245)
- Environmental Objectives shall be developed to address high risks as well as high opportunities
- Environmental programmes/ actions shall be developed to address medium rated risks (excluding opportunities)
- Low rated risks and opportunities shall just be monitored, actions can be implemented if necessary - more especially where there are chances of risk and opportunities changing to a negative outlook
- VERY IMPORTANT** Not all aspects, compliance obligations and contextual issues may result into risks and opportunities, if the risk and opportunity is not known, it should be noted as such within the relevant column or the column must be left blank. Not all areas with identified risks will have opportunities and not all areas with identified opportunities will have risks. Example: Usage of polystyrene cups may not necessarily be an EMS risk in terms of waste management, however, it may be a good opportunity to start using recyclable glass instead of polystyrene cups as it will come with financial savings and reduction of waste generation and disposal costs.

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3.2 Environmental Aspects

3.2.1 Identification of Environmental Aspects

All Eskom departments and contractors within Kriel Power Station shall identify environmental aspects associated with their activities, products and services within the defined scope of the EMS that they can control and those that they can influence taking into account the following

- Planned or new developments,
- New or modified activities (current and relevant-past activities), products and services,
- Normal and abnormal, shut-down and start up conditions as well as foreseeable emergency situations, and
- Life-cycle (inputs and outputs – both intended and unintended) of all activities, products and services

(i) Environmental Aspect Categories include but not limited to the following

Air emissions	Local Issues (e g noise, odour, dust, traffic, etc)
Biodiversity	Flora and Fauna (Plants and animals)
Materials (storage, handling and use)	Facilities operation and maintenance
Water discharges	Raw Material and Resource Use (water, energy, etc)
Waste management	Purchased (or subcontracted) products and services and energy use

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- (ii) The possible sources of information that may be consulted to identify environmental aspects sources related to activities, products and services include but not limited to the following.

Audit, monitoring and compliance reports	Integrated risk management outcome
Environmental authorizations	Modification plans
Environmental Impact Assessments Reports	Technical plans and site visits
Occurrence reports	Professional experience of staff and organizational knowledge
Environmental strategies and operation control procedures	Stakeholder consultation, public consultation and complaints registers

- (iii) Life cycle perspective

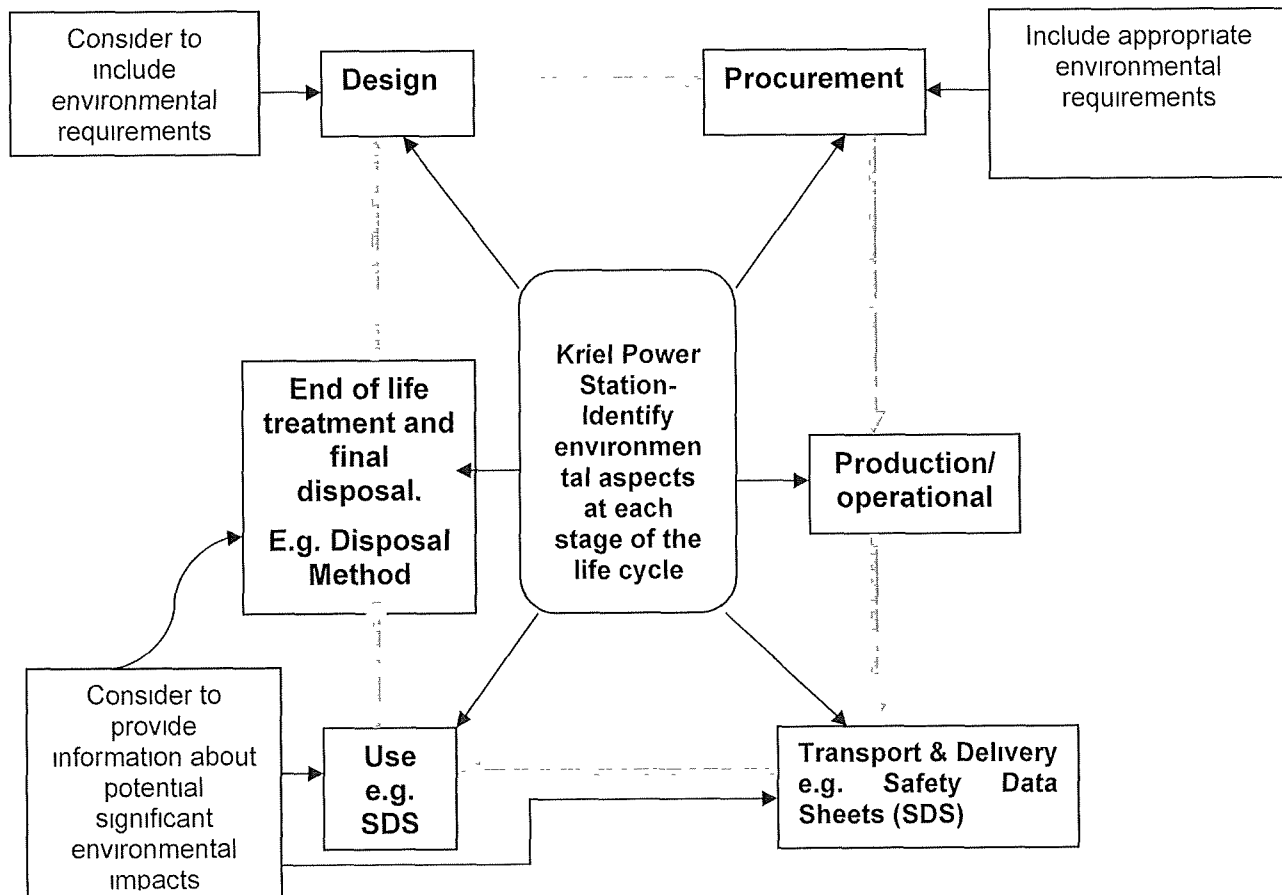
The following process flow shall be considered when assessing the life cycle of the activities,

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products and services associated with environmental aspect



Kriel Power Station employees and service providers need to understand the following points underpinning the importance of considering life cycle of environmental aspects

- Kriel Power Station employees and service providers need to be aware that activities, products and services selections are not isolated, but influence a larger system **Example** with an understanding that it takes 24 trees to create 50,000 sheets of office paper and 23 cubic meters of landfill space to dispose of it. Therefore, it is critical to choose paper made from recycled material and elect to support paper producers that source from sustainable managed forests
- Kriel Power Station employees and service providers need to be aware that choices must be made for a longer term with considerations of associated environmental and social issues, avoid short term decisions that lead to environmental degradation **Example** Disposal of ash at the ash dams instead of recycling
- It is important to improve the entire system, instead of single parts of systems, by avoiding decisions that fix one environmental problem but cause another unexpected or costly environmental problem. When assessing the life cycle, avoid shifting problems from one life

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cycle stage to another, from one geographic region to another and from one environmental medium (air, water or soil) to another **Example** It is important to reduce stack emissions, however, it is completely useless to then transfer the ash into the unlined ash dam which creates ground water pollution and air quality pollution

- When identifying the environmental aspects, it is important to look for unintentional impacts of our actions (such as damaging a natural eco-system or inadvertently supporting unfair labour conditions and wages) and take some action to prevent those impacts

(iv) Aspect identification steps

- The very first and most important step on identifying an environmental aspect is to understand your departmental scope of work or activities in order to determine aspect sources

Note: As you are busy brainstorming your departmental activities, products and services, it is important to have a scribe who will note these points down

- The next step will be to determine as how all the identified aspect sources (meaning your departmental activities, products and services) actually or may potentially interact with the environment – this will then be your “Environmental Aspect”
- Once the “Environmental Aspect” is identified, then the next step will be to determine the actual and potential effect or consequence of the environmental aspect into the environment – this will then be your “Environmental Impact”

Note: Summary of Aspect & Impact Identification steps

~Environmental Aspect “Source” causes Environmental “Aspect” which also then causes Environmental “Impact”~

- Other important points to note during the process of identifying environmental aspect and impacts
 - Identification of environmental aspects must include the controllable aspects (meaning those aspects that you can directly control e.g. activities you directly undertake in the power station) and the influenceable aspects (meaning those aspects you can influence e.g. Stating conditions during procurement process to influence the supplier’s behaviour into complying)

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- Environmental aspects identification should not only focus on the activities currently taking place on site, however, it should also take into account planned or new developments, new or modified activities, products and services
- Identification of environmental aspects should also take into account those aspects which have a potential to and those which are actually causing environmental impacts
- Document each identified environmental aspect in the Aspects Register, with the required information. Where appropriate, group together similar aspects of a minor nature as a single aspect for further consideration

3.2.2 ASPECT ASSESSMENT

- The aim of an aspect assessment is to determine the significance of environmental aspects. In many circumstances, professional judgement will play an important role in determining how to address significant aspects and this can be helped through consultation with appropriate stakeholders. Significant aspects will always take first priority
- Method of significance determination –
 - Each product, service or activity is evaluated as a Raw Impact before any controls
 - Raw impact assessment involves cross-referencing of severity with probability or likelihood in order to get a “significance impact rating” which will be the final rating to be used to determine the aspect’s significance. Also refer to appendix A for impact rating assessment table

Note: Any aspect which has the Significance Raw Impact Rating which is “Intolerable” will be deemed as significant and therefore objectives and targets should be developed to manage such impact. More detail on other raw impact rating and their management is explained on Appendix B

3.2.3 ASPECT CONTROL FACTORS

These include but not limited to the following

- Compliance with Environmental Legislation and other requirements etc
- Control (e.g. procedures, waste handling, oil spill response, bunded storage facilities, handling apparatus, abatement technology, spill kits etc)

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- Compliance to environmental control procedures
- Knowledge of an impact
- Maintenance of associated machinery, plant and equipment
- Records of an Environmental Impact
- Environmental awareness training
- Accident and emergency training e.g. simulated spillage response training etc
- Monitoring of environmental aspects and impacts
- Compliance with minimisation initiatives

3.2.4 ASPECTS/IMPACTS PARAMETERS

Aspects and impacts parameters that should be considered during aspects assessment include but are not limited to the following

- Quantity (volume and / or rate of emission or consumption)
- Toxicity (e.g. environmental threat)
- Existence of applicable legislation
- Frequency of occurrence (normal operating conditions only)
- Likelihood of occurrence (abnormal / emergency situations only)
- Transmission effectiveness of pathway
- Public perception of environmental aspects
- Number of complaints received
- Completion of environmental improvement programmes
- size, nature, frequency, likelihood and duration of the environmental impact,
- the sensitivity of the receiving environment and the extent to which the impact is reversible,
- the extent to which the impact (or the activity, product or service which causes it) is covered by environmental laws and regulations, or contractual requirements, and its importance

3.2.5 DETERMINATION OF ASPECTS' SIGNIFICANCE AND ENVIRONMENTAL OBJECTIVES

- Each environmental aspect/impact's significance is determined through its raw impact rating
- Below is the method for evaluating raw impact value



Raw Impact Rating = Severity cross-referenced with Probability

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- The impact level measure matrix to determine if the aspect is rated low, medium or high is outlined on **Appendix B**
- The effectiveness of the mitigation measures / controls applied to mitigate raw impact is assessed under “effectiveness of the current controls” – refer to Appendix C for a sample.
- **VERY IMPORTANT:** Objectives & Targets and Environmental Management Plans/Programs are to be developed for Aspects/Impacts that are deemed significant (**has an “Intolerable “raw impact rating)**
- Documented environmental objectives shall be aligned with the Kriel environmental statement and also SMART (Specific, Measurable, Attainable, Realistic and Time-bound) in approach
- The environmental objectives shall be communicated with the relevant functions/employees on a regular basis and with KMT at least once within a financial year
- The objectives must be monitored and updated as appropriate – revision records must be documented in the first page of Objectives register

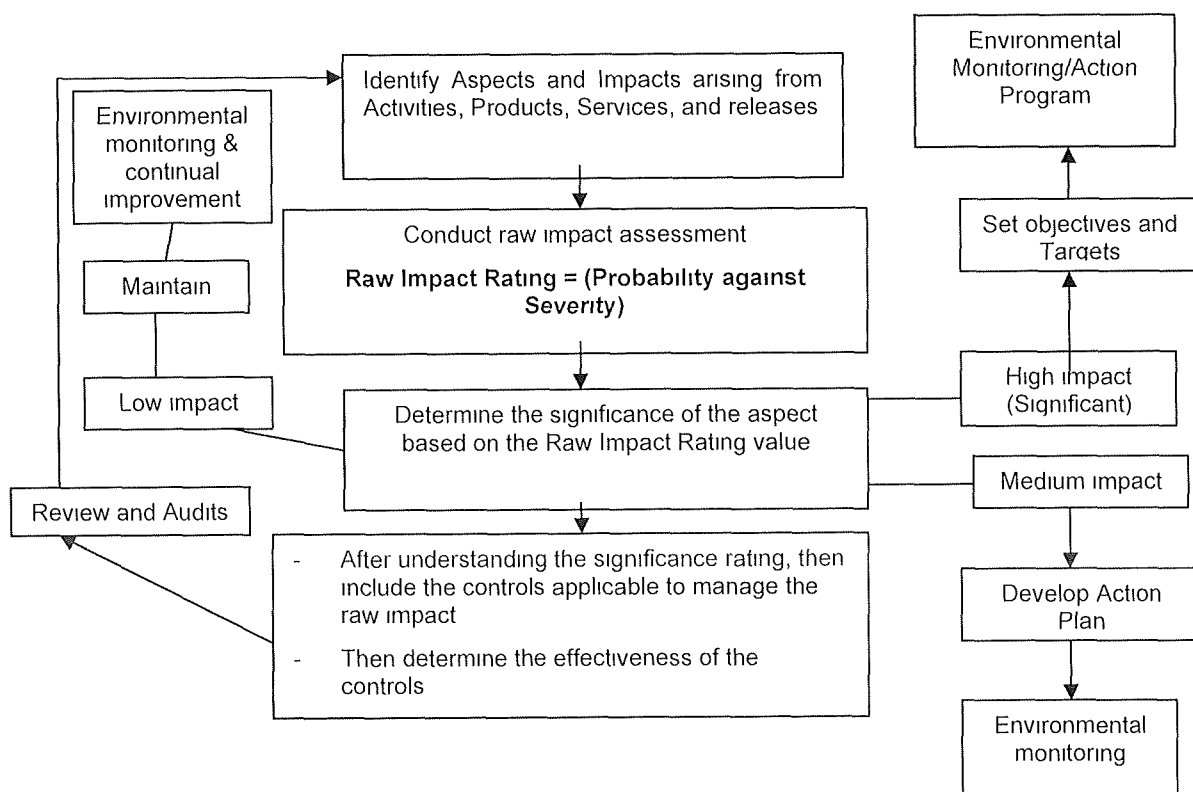


Figure 1: Aspect Identification and Significance Determination flow chart

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For each of the n points, we compute the $2n$ distances to the $2n$ points on the circle. Since computing the distances to the $2n$ points on the circle is $O(n)$, and

3.2.6 REVIEW OF ENVIRONMENTAL ASPECTS AND IMPACTS REGISTER

- Aspects and impacts register shall be reviewed annually or when deemed necessary
- Factors such as improved assessment methodologies, resource requirements or major changes to the organisation's Environmental Statement, products and processes are considered in determining the need to update the assessment

3.3 Compliance Obligations

3.3.1 Compliance Obligations – Legal and Other Requirements

(i) Legal Requirements Determination, Accessibility and Applicability Process

- The Aspects and Impacts Register and Kriel's Contextual Issues Register shall have designated columns which make reference to identified or determined applicable legal requirements if there is any and a note explaining the applicability of a particular determined legal requirement to Kriel as the organization
- Examples of legal requirements include the following
 - Requirements from governmental entities or other relevant authorities,
 - International, national and local laws and regulations,
 - Requirements specified in permits, licenses or other forms of authorization,
 - Orders, rules or guidance from regulatory agencies,
 - Judgements of courts or administrative tribunals
- The following sources can be used to access legal requirements
 - a) The risk register = <https://registers.ecoimpacts.co.za/userdashboard>
 - b) Kriel Document centre at 017 615 2367/2430 or by simply walking-in and request the document

IMPORTANT *It must be ensured that the determined legal obligations are accomplished, in cases where they are not being achieved, action plans to achieve them must be established, implemented and monitored*

(ii) Other Requirements Determination, Accessibility and Applicability Process

- The Aspects and Impacts Register and Kriel's Contextual Issues Register shall have designated columns which make reference to identified or determined applicable other requirements if there is any and a note explaining the applicability of a particular determined other requirement to Kriel as the organization

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- Examples of other requirements include the following
 - Agreements with community groups or non-governmental organizations,
 - Agreements with public authorities or customers,
 - Organizational requirements,
 - Voluntary principles or codes of practice,
 - Voluntary labelling or environmental commitments,
 - Obligations arising under contractual arrangements with the organization,
 - Relevant organizational or industry standards
- The following sources can be used to access other requirements
 - a) Kriel Document centre at 017 615 2367/2430 or by simply walking-in and request the document

IMPORTANT *It must be ensured that the determined legal obligations are achieved, in cases where they are not being achieved, action plans to achieve them must be established, implemented and monitored*

3.3.2 Tracking of Changes Related to Compliance Obligation

The following measures shall be implemented to ensure that compliance obligations changes are effectively managed

Activity/Process Questions	Legal Requirements (responses)	Other Requirements (responses)
Who keeps track of changes?	Environmental section	Environmental Section
What sources of information are used?	EcolImpact legal site	Sustainability Updates, Interested Parties Updates
Frequency of tracking?	To be checked monthly	To be checked monthly
Method for recording the change?	Compliance Obligation changes register – then filtered to any other relevant document such as aspects and impacts register, etc.	Compliance Obligation changes register – then filtered to any other relevant document such as aspects and impacts register, etc
How changes in compliance obligations are communicated?	Kriel Comm & direct communications with relevant Functions; management and other station meetings if necessary	Kriel Comm and/or direct communications with relevant Functions if required, management and other station meetings if necessary

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3.3.3 Evaluation of Compliance

- The following methods and frequency shall be used to evaluate compliance against applicable compliance obligation

Method of Evaluation	Responsible	Frequency
Compliance Obligation Audit	External Auditor	Once every 3 years
Legal Verification Check-sheet	Internal self-assessment – Environmental Section	Monthly
Compliance Obligation Evaluation (required by clause 9.1.2 of ISO14001 2015)	Environmental Section	Bi-Annually
Air Quality Review – AEL	Air Quality CoE	Once every 3 years
Environmental monitoring	Internal self-assessment – Environmental Section	Weekly – reports generated every 3 months

- Compliance evaluation shall be undertaken as per the plan outlined above, subsequent to evaluations, the following shall be done
 - If needed, action must be taken to address the evaluations outcome. Actions to be taken will be dependent to the nature of the outcome – some actions might be escalated to top management, some actions may be managed through incident management process, some may be addressed through relevant forums (e.g. production meetings), etc. NB what is critical is to retain documented information as evidence on how the actions have been addressed and the results
 - Compliance audit reports, legal compliance verification check sheet, air quality review report and environmental monitoring report shall be retained to serve as evidence of the compliance evaluation

Important The abovementioned evaluations are very critical to ensure that KPS maintains its knowledge and understanding of applicable compliance status

3.4 Plans to Take Action

- The following process shall be taken to address significant environmental aspects, compliance obligations, and risks and opportunities

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- Significant environmental aspects – Objectives and actions to achieve them shall be developed, the objectives and action plans shall be monitored
 - Compliance obligations - Appropriate actions such as establishing objectives and targets may have to be undertaken to address compliance obligation deviation which are considered to be of high risk
 - Risk and opportunities - these shall be addressed according to plans outlined under section 3.1.1 of this document
- In order ensure an integration of abovementioned actions into the EMS, actions (especially high significant) must be tracked within the established platforms aimed at improving performance of a various environmental aspects. For example actions relating to water can be tracked at the water management forum while actions relating to emissions can be tracked at emissions forum. Platforms such as production meetings, SHEQ meetings, and departmental toolbox meetings can also be used to address actions as they form part of platforms to address EMS related issues
 - Performance evaluations shall be conducted as outlined under section 3.3.3 in order to assure compliance against obligations, the outcome of monitoring and measurement activities for environmental aspects such as emissions, water, etc. can also be used to assess the effectiveness of the actions. Review of control measures outcome such as the review of an extent in which objectives and targets are met, action effectiveness verification conducted by Quality Engineer, etc. may also be used to evaluate the effectiveness of implemented actions
 - A formal report with three signatories (Compiler, Environmental Manager) to be retained as a documented information for bi-annual compliance obligation evaluation. The results (non-compliances/conformances) from the aforementioned report shall be captured in SAP QIM and follow through relevant closeout process
 - Actions to address environmental objectives must be clearly documented to reflect an activity to be done, resources required (human, financial, etc.), responsible person and completion date
 - The environmental section will go through all objectives and actions to assess the outcome of the actions against the indicators. In case where the environmental personnel is unable to evaluate the result of an action, an expert in the subject will be involved (e.g. quality effectiveness engineer), the evaluation of action results shall be carried out with an involvement of the relevant function and/or person
 - Evaluation of actions which tracked through SAP QIM process (e.g. audit actions, etc.) shall be undertaken by CAPA team

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4. Acceptance

This document has been seen and accepted by

Name	Designation
M Raphasha	General Manager
Rofhiwa Nelwamondo	Engineering Manager
Lungile Gumbi	Maintenance Manager
S Hlatshwayo	Operating Manager
T Nkuna	Finance Manager
T Sibanda	Production Manager
L Machobane	Human Resources Manager
R Maahlo	Risk & Assurance Manager
Nomava Jafta	Outage Manager
Ally Modjela	Projects Integration Manager

5. Revisions

Date	Rev.	Compiler	Remarks
25/01/2025	20	Tumelo Lekone	<ul style="list-style-type: none"> Section 2 1 1 – Correction of sentence grammar Section 2 2 – Correction of Risk & Opportunity Register [Compliance Obligation changes register] Section 2 2 – Inclusion of Clause 4 1, Clause 4 2, Clause 4 3 and Clause 5 Section 2 3 – Inclusion of definitions of Environmental Objective and Procedure Section 2 4 – Inclusion of abbreviations R&O, CoE, CAPA and QIM Section 2 6 – Inclusion of Risk & Opportunity Register, Legal Verification Register, and internal and external communication Section 3 1 1 – Bullet 9 Correction of the spelling for legal verification register Section 3 2 1(i) [Environmental Aspect Categories] – Inclusion of Biodiversity (Fauna and Flora)

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			<ul style="list-style-type: none"> Section 3 2 5 and 3 2 6 – Changing from Environmental Policy to Environmental Statement Section 3 3 1 – EcoImpact legal site Section 3 3 3 – Change from environmental self-assessment to environmental monitoring
17/04/2023	19	Palesa Sebilo	<ul style="list-style-type: none"> Update the latest link for Risk register and Compliance Obligations
17/05/2021	18	Lizo Ntla	<ul style="list-style-type: none"> Section 3 3 1 – Example of other requirements updated
20/01/2020	17	Palesa Sebilo	<ul style="list-style-type: none"> General update of the procedure, nothing has been changed
28/02/2017	16	Khuliso Rasimphi	<ul style="list-style-type: none"> General update of the procedure in line with ISO 14001 2015 Standard
28/02/2017	15	Khuliso Rasimphi	<ul style="list-style-type: none"> Section 2 – few more references were added Section 5 – the whole section (roles and responsibilities) was removed as it duplicates information in the roles and responsibility procedure Section 5 1 – more information added regarding identification of environmental aspects including sources of information to identify environmental aspects Section 5 1 – information regarding residual risk assessment removed
22/02/2016	14	Khuliso Rasimphi	<ul style="list-style-type: none"> General review and update of the procedure

6. Development Team

The following people were involved in the development of this document

- Livhuwani Tshilale
- Palesa Sebilo
- Nketu Mokutu
- Onwaba Qwabi
- Linda Sithole
- Takalani Kutame
- Tumelo Lekone

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Appendix A – IMPACT RANKING ASSESSMENT

Severity	ENVIRONMENTAL IMPACT MATRIX						7 NORMS AND STANDARDS (N)	8 EFFECT ON WORK IMAGE (WI)	9 EFFECT ON ENVIRONMENT (E1)	10 EFFECT ON SOCIAL AND ECOSYSTEM PROCESSES (E2)	11 PUBLIC REACTION (P)	13 LEGAL IMPLICATIONS (L)
	A	Intolerable	Intolerable	Intolerable	Intolerable	Intolerable	Consistently outside of the norm or standard	Reputation impacted with majority of key stakeholders	Irreversible changes to abundance/biomass in affected area. Loss of ecological functioning with little prospect of recovery	Major where natural or social functions or processes are altered to the extent that they will permanently cease.	Severe national pressure to cease business. Serious public or media outcry (international coverage)	Referral to the National Prosecuting Authority. Investigation by authority with significant prosecution and fines. Very serious litigation including class actions
	B	ALERT	Intolerable	Intolerable	Intolerable	Intolerable	Largely deviating from the norm or standard	Reputation impacted with significant number of key stakeholders	Substantial reduction of abundance/biomass in affected area. Eventual recovery of ecological systems possible but not necessarily to same pre-impact conditions	Major where natural or social functions or processes are altered to the extent that they will temporarily cease.	Severe local and national public or press reaction	Withdrawal of permit/closure/fine. Major regulatory breach with investigation and prosecution and potential major fine. Major litigation
	C	ALERT	ALERT	Intolerable	Intolerable	Intolerable	Frequent and significant deviations from the norm or standard	Reputation impacted with some stakeholders	Reduction of abundance/biomass in affected area. Limited impact to local biodiversity without significant loss of pre-impact functioning	Moderate where the affected environment is altered but natural and social functions and processes continue albeit in a significantly modified way.	Local public or press reaction	Directive. Serious regulatory breach with investigation or report to authority with prosecution and/or moderate fine possible
	D	Maintain	Maintain	ALERT	ALERT	Intolerable	Occasional and minor deviation from the norm or standard	Reputation impacted with small number of people	Minimal reduction of abundance/biomass in affected area. Limited impact to local biodiversity without significant	Moderate where the affected environment is altered but natural and social functions and	Minor local public or media reaction	Notification of Intent to issue a Directive. Minor legal issues. Non-compliance to regulations. Minor prosecution eg On the spot fine

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									loss of pre-impact functioning	processes continue albeit in a moderate modified way		
E	Maintain	Maintain	Maintain	ALERT	ALERT	ALERT	Rare and minimal deviation from the norm or standard	No discernible impact on reputation	Reduction of the abundance/biomass of flora and fauna in affected area No permanent changes to biodiversity or exposed ecological system	Minor, where the impact affects the environment in such a way that the natural and social functions and processes are not permanently affected	Little or no reaction Public concern restricted to local complaints	Investigation Low-level legal issue Technical non-compliance Prosecution unlikely
F	Maintain	Maintain	Maintain	Maintain	Maintain	Maintain	Consistently within the norm or standard	No discernible impact on reputation	Possible incidental impacts to flora and fauna in locally affected area No ecological consequences	Minor where the impact affects the environment in such a way that the natural and social functions and processes are not affected	None	Complaints
Probability / Likelihood												
	14 G	H	I	J	K	15 16 L						
	Highly unlikely	Rare	Low likely-Hood Unlikely	Probable Possible	Can happen Likely	Regular Almost Certain						
Per centage	<0.1%	0.1-4%	5-14%	15-49%	50-74%	75-100%						
Appendix A Descriptor	Practically impossible not foreseen to occur Once in more than 10 000 years	Conceivable under exceptional circumstances Once in 1 000 years	Only remotely possible (has happened somewhere) Once in 100 years	Unusual but possible (can happen) Once every 10 years	Quite possible Once every year	Is the most likely and expected to happen (has and foresee it to happen again) More than once a year						

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Appendix B – Impact Level Measure

	IMPACT DESCRIPTION	ACTION	Sign-Off
	Intolerable (High /Significant)	Develop objectives and targets	General Manager
	Alert (Medium/Noteworthy/Important)	Develop an action plan	Environmental Manager
	Maintain (Low /Tolerable / Minor)	Just maintain	None

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Appendix C – SAMPLE FOR ASPECTS AND IMPACTS REGISTER

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