

#### **Procedure**

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## **CONTROLLED DISCLOSURE**

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## 1. Introduction

The effective management of environmental incidents is required to achieve Eskom's value of Zero Harm (the prevention of harm to people and the environment brought about through visible and felt leadership, including the implementation of effective controls and practices) and Eskom's Safety, Health, Environment and Quality (SHEQ) Policy (32-727) principles that environmental incidents are preventable. This procedure sets out the way in which Eskom approaches environmental incident management.

The aims and objectives of incident management are as follows:

- a) Reduce risk and prevent any recurrence of incidents.
- b) Ensure that incidents are managed timeously and effectively.
- c) Ensure that incidents are classified and recorded accurately.
- d) Ensure prompt and appropriate investigation.
- e) Share incident information for continual improvement.
- f) Report to external and internal stakeholders, as appropriate.
- g) Promote the analysis of trends, and review practices accordingly.

Incident management is not a mechanism for assigning blame or monitoring staff performance but rather a way of identifying root causes of incidents and addressing opportunities for incident prevention and improvement in practices to reduce environmental impacts, risks, and achieve our environmental compliance obligations.

## 2. Supporting clauses

## 2.1 Scope

## 2.1.1 Purpose

This document describes the high-level intention and requirements for the effective management of environmental incidents that occur while conducting Eskom's business that result in an unplanned event that has caused or that could, or does, result in a negative environmental impact. This procedure excludes emergency situations as specified in Section 30A of the National Environmental Management Act (NEMA). However, guidance in terms of identifying an emergency situation and the reporting thereof is provided in Appendix D. In addition to the requirements set out in this document, all incidents must be assessed and reported according to the requirements of or environmental approvals/permits/licences and applicable legislation such as the NEMA, the National Water Act (NWA), and the Public Finance Management Act (PFMA), as this is not covered as a requirement within the scope of this document.

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## 2.1.2 Applicability

This document shall apply throughout Eskom Holdings SOC Ltd divisions, subsidiaries, and entities in which Eskom has a controlling interest or influence.

## 2.1.3 Effective date

This revision of the document is applicable from 1 April 2022.

#### 2.2 Normative/Informative references

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

#### 2.2.1 Normative

- [1] 32-727: Eskom, Safety, Health, Environment, and Quality Policy
- [2] 240-51122806: Process Control Manual (PCM) for Incident Management
- [3] 240-81320273: Process Control Manual (PCM) for Perform Incident Investigation
- [4] National Water Act 36 of 1998
- [5] National Environmental Management Act 107 of 1998
- [6] National Environmental Management: Air Quality Act 39 of 2004
- [7] Eskom Environmental Reporting Procedure 32-249
- [8] Environmental Incident Classification Committee Terms of Reference

### 2.2.2 Informative

- [9] ISO 14001 Environmental Management System Standard requirements with guidance for
- [10]32-123: Eskom Emergency Planning Procedure
- [11]32-256: Emergency Response Procedure Communications
- [12]240-131863738: Eskom Emergency Response Procedure
- [13]240-52599304: Process Control Manual (PCM) for Environmental Management
- [14] ISO 9001 Quality Management Systems
- [15] National Environmental Management: Biodiversity Act 10 of 2004
- [16] National Forests Act 84 of 1998
- [17] National Environmental Management: Waste Act 59 of 2008
- [18] Heritage Resources Act 25 of 1999

The list of legislation is not exhaustive and/or not limited to those listed above.

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#### 2.3 Definitions

2.3.1 Ash spillage: The spillage of ash (residue remaining from the burning of coal) or water-containing ash, whether it is in its dry form or in the form of a slurry, from any ashing activity on site that is released into the environment (including land or water, but excluding atmospheric and fugitive emission), which has caused or could or does result in an environmental impact.

- 2.3.2 Breach: The non-compliance with requirements of environmental legislation (including provincial legislation and district/municipal bylaws), authorisations, permits, and licences. Note: The total number of breaches reported includes environmental legal contravention incidents (as defined in this document) and administrative non-compliances (as established through reviews or audits, etc.).
- **2.3.3 Classification**: A process of determining, through applying a set of criteria, whether the incident is an environmental legal contravention incident, an environmental legal contravention incident as a result of a significant failure of business systems (FBS), or an environmental event.
- **2.3.4 Corrective actions:** Actions identified to correct and/or prevent the reoccurrence of an incident.
- **2.3.5 Environment:** Surroundings in which an organisation operates, including air, water, land, natural resources, flora, fauna, humans, and their interrelationships (ISO 14001). Note: Occupational health and safety incidents are managed through the Occupational Health and Safety Incident Management Procedure (32-95).
- **2.3.6 Environmental incident:** An unplanned event or occurrence that has caused, that could or does result in a negative environmental impact.
- **2.3.6.1 Environmental event:** All incidents that are not classified as an environmental legal contravention incident and/or an environmental legal contravention incident as a result of a significant failure of business systems (FBS) when the classification criteria are applied.
- 2.3.6.2 Environmental legal contravention incident: An incident where a provision of environmental legislation (national, provincial, or local) and/or a condition of an environmental approval (for example, environmental authorisation, water use licence, waste licence, licence in terms of the National Forests Act) or any other legal document issued in terms of environmental legislation is contravened. (An environmental legal contravention incident is considered a breach in terms of compliance reporting).

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**Note**: Environmental legislation refers to legislation or legal requirements that has/have, or potentially has/have, an impact on activities interacting with the physical environment as defined in NEMA, including, but not limited to, events that result in either air pollution, sterilising the soil, or destroying rare, endangered, or protected fauna or flora (as set out in the NEMA: Biodiversity Act or provincial environmental ordinances) or result in making any water resource unfit for its original purpose, such as domestic, agricultural, or industrial use, or reduce the water quality to such a state that human intervention is required to restore it to its original quality.

- 2.3.6.3 Environmental legal contravention incident as a result of a significant failure of business systems (FBS): Specific cases of environmental legal contravention incidents that are considered to be of very high significance in terms of its impact on the environment and/or Eskom in that they have a material business impact and illustrate a significant failure of business systems. In the light of the above principles, they are identified in terms of the criteria below. If any one of the criteria specified in Appendix C or the principle defined above is relevant to a specific contravention of environmental legislation, then that environmental legal contravention incident is a potential "environmental legal contravention incident as a result of FBS" (previously OHD).
- **2.3.7 Environmental impact:** Change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's environmental aspects (ISO 14001).
- **2.3.8 Hydrocarbon spill:** The release of liquid petroleum hydrocarbon (oil, diesel, jet fuel, etc.) spillage into the environment (includes soil and water), which has caused, which could or does result in environmental damage and/or pollution, and/or degradation.
- **2.3.9 Incident:** An unplanned happening or occurrence (a): an occurrence of an action or situation that is a separate unit of experience. (b): an accompanying minor occurrence or condition: (c) an action likely to lead to grave consequences (harm to environment, people, property, or processes).
- **2.3.10 NEMA Section 30 incidents:** An unexpected, sudden and uncontrolled release of a hazardous substance, including from a major emission, fire or explosion, that causes, has caused or may cause significant harm to the environment, human life or property.
- 2.3.11 NWA Section 20 incident: Includes any incident or accident in which a substance:
  - a) pollutes, or has the potential to pollute, a water resource; or
  - b) has, or is likely to have, a detrimental effect on a water resource.

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2.3.12 Repeat Environmental incident: Any environmental incident that occurred within 12 months of the previous environmental incident, occurred within the same OU/BU, is related to the same legislation and/or licence, has the same causes and the corrective and preventive actions identified but not implemented or that were implemented, but were not effective and failed. Note: This definition must be applied in conjunction with the definition of a FBS and the duty of care principle for repeat environmental legal contravention incidents. (Appendix a provides a guidance).

- **2.3.13 Wildlife**: Refers to birds, game, non-domesticated animals, vegetation, and marine and freshwater species, with special focus on protected species.
- Note 1: This definition is only applicable to the incident management procedure to enable practitioners to categorise biodiversity incidents into wildlife or vegetation types. Domestic animal incidents and animal encounters/interactions that do not meet the definition of an environmental incident such as snake encounters must be dealt with either through the OU/BU Environmental Management System (EMS) or dealt with as safety or property damage incidents and will not be covered in this procedure. However, killing a snake, killing a domestic or non-domesticated animal becomes an environmental incident.
- 2.3.13.1 Non-domesticated animals: any animal, reptile, or fowl which is not naturally tame or gentle, but is of a wild nature or disposition, and which, because of its size, vicious nature, or other characteristics would constitute a danger to human life (encountered at minimum, when falling into construction foundations, stepping on surveying pegs, stuck in between the tower steel members).
- **2.3.13.2 Domestic animals:** one that is sufficiently tame to live with a family, such as a dog or cat, or one that can be used to contribute to a family's support, such as a cow, chicken, or horse. When something is domesticated, it is converted to domestic use, as in the case of a wild animal that is tamed.
- **2.3.13.3 Encounter**: An encounter is seen when one is unexpectedly faced with or experience (something hostile or difficult). which puts a threat to human health e.g., snake, robbers, bees, dangerous animals, accident, an incident.
- **2.3.13.4 Interaction**: An interaction is when both/involved parties play a role to have an effect on each other be involved directly both negatively or positively.

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## 2.4 Abbreviations

Abbreviation	Explanation
AEL	atmospheric emission licence
CIR	central incident register
Corporate EM	Corporate Environmental Management Business Unit
DFFE	Department of Forestry, Fisheries and the Environment
EICC	Environmental Incident Classification Committee
EMS	Environmental Management System
ESC	Environmental Steering Committee
Eskom	Eskom Holdings SOC Limited
EWT	Endangered Wildlife Trust
FBS	A legal contravention incident as a result of significant failure of business systems (previously named OHD)
INO	initial notification of occurrence
LC	environmental legal contravention incident
NEMA	National Environmental Management Act
NEM:BA	National Environmental Management: Biodiversity Act
NEM:PAA	National Environmental Management: Protected Areas Act
NEM:AQA	National Environmental Management: Air Quality Act
NWA	National Water Act
OU/BU	operating unit/business unit
PCM	process control manual
SAP	Systems, Applications, and Products in Data Processing
SAP EH&S	SAP Environmental Health and Safety (IT system)
SHEQ	Safety, Health, Environment and Quality
S	Section of applicable legislation
SOC	state-owned company

## 2.5 Roles and responsibilities

Eskom divisions and its subsidiaries shall take all reasonably practicable steps to prevent all incidents that could or do result in an environmental impact.

The responsible managers (asset owners and environmental licence holders) shall be responsible for implementing, communicating, and monitoring the implementation of this procedure. The responsible manager must ensure that consequences of non-compliance to this procedure are communicated to all staff and that staff understands the environmental duty of care.

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## 2.6 Process for monitoring

Compliance with the requirements of this procedure shall be audited or monitored according to the audit/review process. The operating unit/business unit (OU/BU) is responsible for its own monitoring known as level one assurance reviews and/or self-assessments. All other assurance providers will monitor compliance with this procedure according to agreed assurance plans.

## 2.7 Related/Supporting documents

For the following types of incidents, refer to the following documents for additional process clarification.

Environmental incident type	Supporting document			
All incident types	Environmental Incident Management Procedure – 240-133087117.			
Ash spills	Position Paper on Ash Spillages – Document Number ENV16 – L009.			
AEL NEMA S30	AEL incidents: Initial report in terms of NEMA Section 30 – Document Number 240-7667761.			
	Atmospheric Emission Licence Practice Note – ENV20-R103 Rev 3. (Including Emissions Monitoring and Reporting Instruction Note).			
NEMA Section 30 incidents	NEMA Section 30 (Control of Incidents) Report Template – can be obtained from the DFFE website https://www.environment.gov.za/documents/forms#legal_authorisations (search emergency incident report).			
	<ol> <li>DFFE guidelines on the administration of incidents (as described in Section 30 of the National Environmental Management Act 107 of 1998) Supported by the decision note and/or position paper on incident management requirements – ENV19 – L164.</li> </ol>			
Wildlife incidents	Wildlife Interaction and Management Standard 32-829.			
Protected tree cutting	1. Emergency tree cutting: Government Gazette No. 773 Issued by the Department of Water Affairs – 24 August 2007. Exemptions in terms of Sections 7(1) and 15(1) of the National Forests Act, 1998 (Act 84 of 1998), as amended.			
	2. Briefing Report: Guidelines for protected tree cutting applications – dated 12 April 2013.			
Hydrocarbon spills	Spill Assessment Table – Document Number <b>240-47176039</b> .			
Environmental legal contravention	Environmental Incident Initial Notification Report – 240-161144504			

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Environmental incident type	Supporting document	
- incidents (LC)	EICC Environmental Legal Contravention Incident Closure Certificate –     Document Number 240-76507067.	
	3. Decision Record for the Eskom Environmental Incident Classification Committee (EICC): Ownership and accountability of environmental incidents in areas of shared responsibilities between Eskom and Eskomowned entities or contractors dated 11 January 2016.	
	4. Environmental Incident Classification Committee TOR – 240-67689003.	

## 3. Environmental Incident Management Process

The following steps describe the process of environmental incident management and are described in detail in the remainder of the document:

- 1. Incident identification.
- 2. Initiation and execution of emergency response.
- 3. Notification and reporting to relevant stakeholders.
- 4. Incident prioritisation.
- 5. Classification and recording of incidents.
- 6. Incident investigation.
- 7. Management of corrective actions implementation and monitoring of incident corrective actions.
- 8. Incident close-out.
- 9. Incident communication occurs throughout the incident management process.

## 3.1 Incident identification

There are two ways of identifying or recognising an environmental incident, namely, direct and indirect observation.

- Direct observation includes seeing the incident happening or being involved in the incident.
- Indirect observation includes learning of the incident through, for example, complaints, feedback, or information provided by internal stakeholders (for example, Eskom employees or contractor employees) or external stakeholders (for example, authorities, members of the public, landowners, NGO's, etc.). Incidents are also identified indirectly through site inspections, audits, reviews, monitoring reports, a compliance notice, a directive, a fine (including a Section 24(g)), and/or prosecution from the authority.

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## 3.2 Initiation and execution of emergency response

a) Initiation and execution of emergency response include, but is not limited to, the following:

- i. Rescue operations.
- ii. Ensuring that the scene is safe during and after the incident.
- iii. Providing emergency care where necessary and/or applicable.
- iv. Initiating environmental emergency controls and responses in terms of the site emergency preparedness plan/procedure. Implementing reasonable measures to contain the incident and/or prevent pollution, environmental degradation and/or loss of species from occurring, continuing or recurring.

## 3.3 Notification and reporting

All environmental incidents must be reported within 24 hours of the incident occurring or becoming aware of the incident, internally to all relevant stakeholders and externally to relevant interested parties as identified in the site EMS. Incident notification may initially include email or telephonic communication but must be followed in writing within 24 hours by the Environmental Incident Initial Notification Report or the documented OU/BU notification template. The readily available information must be used for the initial notification and reporting. A level 1 Environmental Incident Initial Notification Report Template (240-161144504) has been developed and available for reporting incidents within Eskom.

An alarm report (also known as a formal Initial Notification Report) in terms of NEMA Section 30 control of incidents (referred to as NEMA S30 incidents from hereon in the document) and an initial notification in terms of NWA Section 20 control of emergency incidents (referred to as NWS S20 in the document) must be submitted to the relevant authority within 24 hours or as soon as reasonably practicable after knowledge of the incident, as specified in Appendix D.

As may be stipulated in the condition of a licence/authorisation and/or legislation (for example, NEMA S30 and NWA S20), such potential environmental legal contravention – incidents (LCs) must be reported to the relevant authorities within 24 hours and interested and affected parties.

## a) Internal stakeholders

- Supervisor and/or responsible manager.
- Environmental Department or SHEQ Department.
- Emergency Control Department if required.
- Respective divisional or subsidiary executive management for potential legal contravention.

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 Divisional or subsidiary Environmental Management Department to be notified of potential legal contravention incidents and/or NEMA S30 incidents or NWA S20 incidents. This includes the Risk and Sustainability Corporate Environmental Management Department (RS:EM) as required.

 All AEL emission exceedance incident notifications and investigation reports must be copied to the divisional or subsidiary Environmental Department when notifying the authorities. Reference Document: Initial Report in Terms of NEMA S30 – Document Number 240-7667761.

## b) External stakeholders or interested parties

- Relevant government department.
- · Local and district municipality.
- •Interested parties as identified in terms of the site EMS, such as neighbouring farmers, communities, Eskom lenders, strategic partners, etc., if potentially or perceived to be affected by the incident.

## 3.4 Capture initial notification

- a) Initial reports are reports that are submitted by any individual who is reporting an incident to the relevant OU/BU Environmental Department. These can be provided using the Environmental Incident Notification Report (reference number 240-161144504) or the OU/BU documented method for the internal flash report, including the SAP EH&S Flash Report.
- b) Initial reports outline the known facts of an incident (that is, date, time, place, what happened, immediate actions taken, photographic evidence, and preliminary findings).
- c) Eskom's environmental practitioner shall, where reasonably practicable, be responsible for initially assessing the environmental damage arising out of the incident.
- d) Wildlife incidents on the Central Incident Register (CIR) System of the wildlife strategic partner, and provide an incident number as a reference to the relevant individual or OU/BU reporting the incident.

## 3.5 Incident prioritisation

## 3.5.1 Consequence and priority rating

Environmental incidents must be prioritised to determine the potential consequences and actions required to mitigate the incident timeously. The consequence of an incident must be checked against Table 3.5.1, and the incident prioritised using the allocated priority ratings within the table.

The wildlife strategic partner will use their incident investigation decision tool to determine and prioritise wildlife incidents for further detailed investigation or monitoring for recurrence.

NB: Consequence referred to below related to the environmental consequence of the incident, and thus this is required to be captured on SAP EH&S.

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Table 3.5.1 Consequence and priority rating table

Consequence categories	Low/ Minimum	Minor	Moderate	Major	Critical
Consequences	Little or no ecological effect and no measurable impact on human health.	Minor ecological effect. Ecological damage can be remedied within three months. Minor hazard to humans in the immediate vicinity.	Incident could/does result in a moderate uncontained or sustained environmental release, impacting the local environment only. Ecological damage can be remedied in less than six months. Health hazard to humans in the immediate vicinity, but not resulting in critical or fatal injury/illness.	Incident could/does result in a major uncontained or sustained environmental release, impacting the regional environment only.  Ecological damage can be remedied in less than one year. Health hazard to humans in the immediate vicinity resulting in critical or fatal injury/illness.	Incident has a recognised national or international environmental impact. Widespread or permanent local ecological damage. Remediation would take longer than one year. Could result in a major public health hazard. Magnitude is unknown.
Environmental priority rating	Low	-	Moderate	High	Extreme

**Note:** If the incident is considered a potential LC or FBS, as defined in this document, the incident must automatically be prioritised as high and extreme, respectively, regardless of the actual consequence.

## 3.5.2 Action and responsibility requirements

All environmental incidents must be reported within 24 hours of the incident occurring or as soon as becoming aware of the incident as specified in legislation and/or conditions of applicable licences/authorisations. The initial notification process must be followed where a flash report or respective Environmental Incident Notification Reports (OU/BU-specific or 240-161144504) is sent to internal and external stakeholders and interested parties via email. Documented proof of the notification must be available on the incident management system. The responsible manager must ensure that the initial notification is communicated according to the timeframes (24 hours) specified in this document.

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Table 3.5.2 Action and responsibility table

Environmental priority rating	Low	Moderate	High	Extreme
Levels of management to be informed	Middle manager and environmental practitioner.	OU/BU management. OU/BU environmental manager/ practitioner.	Those specified under moderate plus the divisional EICC representative and R&S EMBU.	Inform those specified under high and the senior environmental manager and divisional/ subsidiary group executive.
Classification and recording of all incidents within 48 hours. Unknown classification must be system until the status has been determined. Any be done immediately when new information is a during the investigation process.				d as an event on the in classification must
Investigation requirements  Investigations must be completed as specified within	Initiate investigation process within seven working days. Complete investigation within 30 calendar days.	Initiate investigation process within seven working days. Complete investigation within 30 calendar days.	Initiate investigation process within 48 hours. Complete investigation within 45 calendar days.	Initiate investigation process within 24 hours. Complete investigation within 45 calendar days.
legislation, licences and using this table. Legislated timeframes are 14 calendar days	by OU/BU in cons	n shall be determined sultation with the ental practitioner.	shall be determ	
*Refer to Appendix E for investigation cause guidance	A basic investigation that determines the direct cause of the incident (assessment).	An investigation that determines the apparent cause including processes and organisational issues (evaluation).	causes and/or of	uses, including root organisational the incident and the ventive and

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	Notify the Environmental Department and line management in writing immediately or no later than 24 hours.		Notify the Environmental Department, line management, and/or EICC representative for LCs in writing immediately or no later than 24 hours.		
	Communicate the OU/BU within 48		ort to the relevant person(s) at the		
	The lessons learnt must be shared within the OU/BU on a	The individual trends for moderate incident lessons learnt must be shared within the OU/BU quarterly.	Case studies with lessons learnt, using the Eskom template, for all LCs must be compiled, shared within the OU/BU, and		
Incident communication	six-monthly basis when necessary.		submitted to the respective divisional or subsidiary head office within three months of the incident being classified.		
			Eskom-wide circulation of lessons learnt will occur as a consolidated sharing six-monthly.		
			Case studies for all other incidents rated high and extreme must be shared within the OU/BU and relevant Division within one month (30 days) after the investigation.		
Environmental priority rating	Low	Moderate	High Extreme		

**Note** <sup>1</sup> Environmental incidents that occur over weekends, on days off (for example, pay weekend), and holidays will not be considered late captures during audits and reviews when assessing the capturing of incidents onto SAP EH&S. These incidents should be captured within 48 hours upon return to a working day.

# 3.6 Classification and recording of incidents

All environmental incidents must be prioritised, classified, and recorded in the SAP EH&S system according to the CARAT principles. The SAP EH&S system is the only acceptable system for capturing incidents, excluding wildlife incidents that will be recorded on wildlife strategic partner's CIR.

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#### 3.6.1 Classification

All environmental incidents must be classified using the definitions provided above and criteria in the table in Appendix C to determine if the incident is an environmental event, LC, or a LC as a result of FBS. NEMA S30 incidents and NWA S20 incidents must be classified using the guidance provided in Appendix D. The outcome of the classification must then be completed on SAP EH&S as a mandatory requirement.

If the environmental incident is classified by the OU/BU as an LC or an LC as a result of FBS, the incident must be reported to EICC via the divisional EICC representative in the same month that the incident occurred, where practicable. EICC will review and confirm the LC and the LC as a result of FBS. Incidents where the classification is uncertain may be brought to the committee for deliberation. However, there should have been discussions and proposal of classification within the respective division or subsidiary before presenting the incident to the committee.

## Specific incidents:

This section only highlights those incidents considered complex with a need for clarity in the form of practice notes and assessment tables etc. However, the list is not exhaustive of all types of environmental incidents.

The results of the respective assessments completed for specific incidents must be completed, and documented evidence must be electronically attached to the incident in the SAP EH&S document management system for all incidents highlighted below.

- a. Hydrocarbon spill incidents: In terms of classifying hydrocarbon spill incidents, the spill classification form must be completed to determine if the occurrence is classified as an incident for reporting and managing on SAP EH&S. If the assessment outcome is minor, moderate, or major, then the assessment and all relevant documents must be electronically attached to the incident in SAP EH&S. The form is registered as a Spill Assessment Table (Document number 240-47176039).
- b. Ash spill incidents: All ash spill incidents must be assessed using the ash spill assessment form as provided in Appendix A of the Position Paper on Ash Spillages Document number ENV16 L009 in addition to Appendix C of this document and NEMA S30 (control of incidents) requirements and NWA S20 (control of emergency incidents) requirements.
- c. **Emergency tree cutting incidents**: These will be classified using **Government Gazette No. 773** issued by the Department of Forestry 24 August 2007 Exemptions in terms of Sections 7(1) and 15(1) of the National Forests Act, 1998 (Act 84 of 1998), as amended.
- d. Dust fall-out exceedances: All dust fall-out exceedances must be reported as incidents on SAP EH&S. A LC in terms of the National Dust Control Regulations (GNR 827, 1 November 2013) is incurred if there is a contravention of or failure to comply with a provision of regulation 4(2) and (3), 6(1); (3) and (4) or (7) of the said regulations.

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e. Wildlife incidents: Incidents will be assessed on species significance in accordance with the NEM:BA, GNR 255 of 2015 –Threatened or Protected Species Regulations (as amended) and the International Union for the Conservation of Nature (IUCN) Red List categorisation.

- f. **Erosion incidents**: Erosion occurring from Eskom's business or activities must be managed through the incident management process. However, existing or historical erosion not caused by Eskom activities or in the course of Eskom's business are not considered incidents and thus should be managed through the site-specific environmental management system (EMS).
- g. Grass fires: All grass fires that occurred within the protected areas (a), (b), and (d) of the National Environmental Management: Protected Areas Act (NEM:PAA) and/or in terms of NEMA S30, as a result of Eskom activities must be classified as environmental incidents and managed in terms of this procedure and prioritised as a high or extreme incident depending on the extent of the damage.
- h. Fires: All fires as a result of Eskom activities that occur outside of a NEM:PAA defined protected area with known indigenous and/or protected species must be recorded as an environmental incident. These incidents must be prioritised initially as low or moderate depending on the extent of the damage and/or significance of species loss incurred by the incident, although their classification may be increased based on the outcome of the investigation.
- i. **Incidents with both OHS and environmental consequence**: These incidents will be managed in line with the requirements of this procedure and 32-95. A joint investigation must be conducted and the information provided to the OHS and environmental practitioners for updating on SAP EH&S accordingly. The OU/BU shall determine internally who captures the incident on SAP EH&S.
- j. Complaints: Complaints that trigger the definition of an incident (as defined in this procedure) and are regarded as environmental incidents and non-conformities and therefore must be managed in accordance with both the Non-Conformity and Corrective Action Procedure and the Environmental Incident Management Procedure requirement.

#### 3.6.1.1 Reclassified incidents

Reclassified environmental incidents must be communicated by means of an updated SAP EH&S Flash Report to relevant internal interested parties, together with an explanation for the reclassification. Supporting documentation or proof must be made available for verification and audit purposes and electronically attached to the incident in SAP EH&S.

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## 3.6.1.2 Classification dispute and appeal process

Disputes or appeals regarding the classification of environmental incidents must be submitted to the Eskom environmental manager by the respective divisional/subsidiary environmental manager. The Eskom environmental manager will review the incident information provided and will decide on the incident classification. Should the Eskom environmental manager require input into the decision, the ESC may be consulted. The final incident classification will be communicated to the respective divisional/subsidiary environmental manager, who is responsible for communicating the decision to the EICC.

## 3.6.2 Recording

All incidents must be recorded on SAP EH&S (the incident management tool) or the EWT CIR for wildlife incidents. The date the incident occurred is the date that must be used as the incident date unless a different decision is provided for incidents that are identified later and the actual incident date is unknown. In instances such as these, the date of identification will be used unless specified differently by the EICC for LCs.

All incidents must also reflect the applicable legislation or permit and the applicable section within the respective legislation contravened for LCs.

## 3.6.2.1 Recording of biodiversity incidents

All vegetation-related incidents will be recorded on SAP EH&S. All wildlife incidents (according to the definition for the purposes of this document) will be recorded by EWT on the CIR. In the event of an insurance or third-party claim for a wildlife incident, such incident shall be captured on SAP EH&S to facilitate the insurance or third-party claim process.

## 3.6.2.2 Recording of emission incidents

All emission exceedances that exceed the periods allowed for start-up, maintenance, upset conditions, and shut-down as specified in the station-specific AELs must be reported and managed as incidents, as detailed in the Atmospheric Emission Licence Practice Note.

## 3.7 Incident investigation

All incidents must be investigated according to the Action Required Table. Where investigations take longer than the allocated timeframe within the Action Required Table, a written motivation is required as follows:

- The responsible manager must request for an extension with a motivation from the OU/BU manager for all events at least seven calendar days before the timeframe required in the Action Required Table.
- The OU/BU manager must request an extension for all LCs and LCs as a result of FBS to the respective divisional/subsidiary environmental manager at least seven calendar days before the timeframe required in the Action Required Table.

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Investigation reports must be treated with controlled disclosure according to the Eskom documentation processes.

- a. All investigations for environmental incidents shall evaluate the actual environmental impact that occurred and ensure that all licence and permit requirements in terms of investigations are covered in the investigation.
- b. The focus of the investigation for LCs, LCs as a result of FBS, NWA S20 and NEMA S30 should be the reason or root cause, direct cause, and contributory cause for the incident and the environmental impact. The investigation shall also include which legislation/permit (including the specific section within legislation) was contravened in addition to the technical details of the incident.
- c. It is recommended that the investigation lead or chairperson is trained as a lead investigator to ensure thorough investigations and effective corrective action identification.
- d. The investigation team/committee and chairperson for a LC shall be appointed by the OU/BU in consultation with the EICC divisional representative. The investigation team will require input from the OU/BU SHEQ or environmental manager and the involvement of relevant internal stakeholders such as engineers, contractor representatives, security, etc., where applicable. External stakeholders such as subject matter specialist(s) and consultants for particular fields may also be required for certain incident investigations as advised by the EICC representative with the OU/BU manager. The respective EICC representatives shall be involved in the investigation as deemed necessary.
- e. A detailed investigation report should be generated and captured on SAP EH&S and circulated to the divisional EICC representative.
- f. For investigations of LCs as a result of FBS, the respective EICC representatives or divisional environmental manager must be involved. These investigations shall be conducted by Assurance and Forensics or another relevant independent group as determined by the EICC representative.
- g. Investigation chairperson and teams for environmental events must be determined by the OU/BU manager or relevant departmental manager and shall involve the environmental practitioner(s) of the OU/BU and the relevant supervisor or contractor representative the incident occurred. Expertise from relevant fields can be requested, depending on the type of incident that is being investigated.
- h. Where incidents occur in areas of an Eskom subsidiary or contractor responsibility, joint investigations shall be carried out within the stipulated time of 45 calendar days after the incident occurred, where responsible managers and the environmental team from Eskom and the Eskom subsidiary or contractor are present. The outcome of this investigation shall be considered as final and used for classification purposes at EICC. The investigation lead shall be from the Eskom division or Eskom subsidiary or contractors depending on who is responsible for the incident or where the incident occurred. Should either party receive an invitation to investigate an LC, they shall accept and attend the investigation.

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#### i. Wildlife incidents:

i. The incident investigation shall be initiated either by EWT or the Eskom BU. The site investigation team shall comprise representatives from EWT and the Eskom OU/BU and/or relevant Environmental Department and, if applicable, the external stakeholder (relevant interested and affected parties) that reported the incident.

ii. A detailed investigation report including recommendations/corrective actions shall be generated by EWT. The Eskom OU/BU must be afforded the opportunity to consider and to accept the recommendations/corrective actions in terms of technical acceptance. In the event of a dispute between the stakeholders, the relevant divisional/subsidiary environmental manager will assist in resolving disputes.

## The investigation report must include the following:

- a. The details of the incidents (type of incident, what occurred, sequence of events, when and where the incident occurred).
- b. The legislation and/or condition of environmental permit applicable to the incident and what, if any, legislation contravention has occurred.
- c. Incident consequences and impacts.
- d. Direct or immediate cause(s).
- e. Root causes, considering human, workplace, and natural factors (who, what, and why).
- f. Identify system failures (procedure non-conformance, training, plant failure, etc.). This must also include a holistic view of the systems linked to the incident and possible failures.
- g. Corrective and preventive actions to remedy and prevent a reoccurrence of the incident.
- h. Lessons learnt and recommendations.

## 3.8 Management of corrective actions

- a) There must be at least one corrective action for each cause identified during the investigation. All actions must be captured and managed on SAP EH&S.
- b) The Investigation Committee must consider the following hierarchy of control when formulating corrective actions:
  - i. Engineering control to design/redesign in order to eliminate the risk.
  - ii. Administrative control, ensuring procedures are updated to prevent incidents from occurring.
  - iii. Substitution or elimination by removing the aspect that may result in an environmental incident and thus actual environmental impact.

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c) Planned start and completion (end) dates for all corrective actions must be clearly defined and must be SMART:

- i. Specific;
- ii. Measureable;
- iii. Achievable:
- iv. Realistic, with clearly allocated responsibilities; and
- v. Timeous, with clear deadlines.
- d) All actions, once completed, must be verified by the person responsible in order to determine effective implementation. Documentary evidence of the implemented corrective action must be available and attached electronically to the incident in SAP EH&S before it is closed on SAP EH&S.
- e) Where a corrective action that has been implemented is deemed ineffective and, therefore, unsuccessful, the corrective action(s) must be revised. An alternative corrective action must be identified to address the root cause(s). Documented proof of approval of the action change must be available, including obtaining approval for action changes for LCs and LCs as a result of FBS from the EICC representative. The SAP EH&S process is then followed is to close the ineffective action and capture the revised action together with the proof of approval of the action change.
- f) If a corrective action for an LC incident requires revision and/or the due date will not be met, the respective OU/BU must follow the internal OU/BU process for approval and, in addition, submit that request in writing for approval to amend the corrective actions and/or due date from their respective divisional/subsidiary environmental manager. Due date extension requests must be submitted to the divisional/subsidiary environmental manager at least two weeks before the actual initial due date. Once approval is obtained, documented proof must be available. The original action must be closed on SAP EH&S as 'not implemented to requirements' and a new action captured on SAP EH&S with the approved revised action date. Where extension requests are not approved, those actions must remain overdue. The following minimum information is required when submitting an action extension request:
  - Motivated reason for the extension.
  - ii. Proof of action commencement from when the action was developed and allocated.
  - iii. Risk assessments and assurance that repeat or similar incidents are being prevented by treatment plans.
  - iv. Adequate timelines and sequence of events to highlight reasons for project delays.
  - v. Engagements with the respective authority for extensions or an update of corrective action plans previously submitted have been taking place.
  - vi. The motivation must be supported by both the respective environmental manager and OU/BU manager.
  - vii. An environmental impact assessment of the incident that includes monitoring trends and actions to address the impact as needed.

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g) To ensure the prompt follow-up and close-out of corrective action from an incident investigation report, periodic status reports must be provided from SAP EH&S to site management until all recommendations have been acted on and closed out.

- h) The EICC meetings may also track the corrective actions for incident LCs and incident LCs as a result of FBS as part of the monthly meetings.
- i) Wildlife incidents: Recommendations/Corrective actions shall be implemented by the Eskom OU/BU according to the applicable and approved timelines and related divisional key performance indicators (KPIs) for bird incidents. For other wildlife incidents, the timelines according to the recommendations/corrective actions shall be adhered to.
- j) All investigation reports (including wildlife incidents) should be finalised and signed within 14 calendar days of completing the investigation.
- k) The corrective actions for all incidents (excluding wildlife incidents that will be captured by EWT on the CIR) must be captured on SAP EH&S within seven calendar days from the date of signing the investigation report.

## 3.8.1 Documentation management

The OU/BU is responsible for scanning and attaching all relevant documentation (for example, the Initial Notification Report, SAP EH&S system-generated flash report, proof of corrective action implementation, investigation report, spill assessments, environmental impact assessment of the incident, etc.) needed to demonstrate that the incident has been managed according to the incident management process, as soon as the documents are completed and are available.

### 3.9 Incident close-out

- a) Close-out is the final step in the incident management process. The action of closing out an incident signifies that all corrective actions have been effectively implemented, case studies effectively communicated, all relevant documents attached and verified by the responsible managers.
- b) The incident must then be closed out in SAP EH&S as an action.
- c) All LCs and LCs as a result of FBS must have a signed closure certificate uploaded (Document number 240-76507067).
- d) Wildlife incidents: Eskom OU/BU and/or environmental manager shall confirm when all recommendations/corrective actions have been implemented with all the related documented information as evidence. An incident will be closed on the EWT CIR by capturing the date the recommendations were implemented, completed, and verified. If the incident was reported by an external stakeholder (public or landowner), EWT the stakeholder might be contacted to confirm if mitigation has been implemented.

## 3.10 Incident communication

Incident communication occurs throughout the incident management process, and documented evidence of this must be available on SAP EHS. Various levels of communication are identified and specified in the Action Required Table of this document.

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# 4. Acceptance

This document has been seen and accepted by the Eskom EICC and Environmental Steering Committee.

## 5. Revisions

Date	Rev.	Compiler	Remarks
June 2022	3	I Cloete	The term OHD has been replaced by FBS. Definition on wildlife has been clarified
April 2021	2	N Rajdeo	Procedure due for revision
November 2017	1	N Rajdeo	New document for environmental incident management that was previously included in 32-95.

3 Revision:

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# Appendix A: Process flow to determine repeat environmental incidents

This process flow must be applied in conjunction with the definition of an FBS and duty of care principle.

#### Questions to be asked:

Did the incident take place within 12 months of the previous environmental legal contravention incident?

Yes





No (then not a repeat)

Did environmental legal contravention incident occur within the same BU (for example, Transmission grid, Distribution cluster, power station, Group Capital project, etc.)?

Yes





No (then not a repeat)

Is the environmental legal contravention incident related to the legislation and/or the same licence, previously classified as a legal contravention incident?

Yes





No (then not a repeat)

Is the environmental legal contravention incident related to the same root cause?

Yes



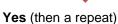


No (then not a repeat)

Have the corrective and preventive actions identified to address the previous incident not been implemented or been implemented however was deemed ineffective and failed?







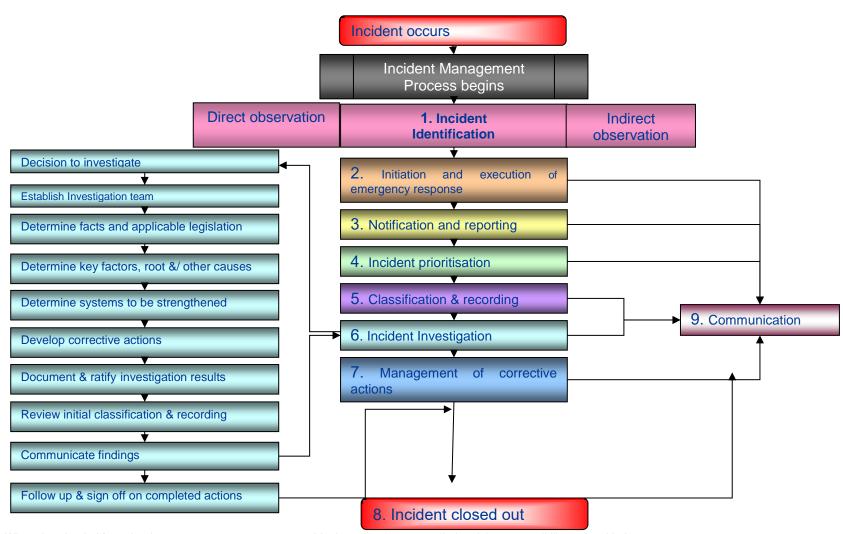


No (then not a repeat)

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# **Appendix B: Incident management process flow**



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# Appendix C: Classification criteria for environmental incidents

EICC criteria for classification of environmental incidents as events or legal contravention incidents					
Element	N/a	Yes	No		
1. Did the incident result in a contravention of any environmental legislation and/or condition of a licence, authorisation, or permit?					
2. Environmental duty of care (Section 28 of NEMA) – Did the incident result in either sterilising the soil or destroying rare, endangered, or protected fauna or flora?					
3. Environmental duty of care and prevention of pollution (Section 28 of NEMA and Section 19 of NWA) – Did the incident result in making any water resource unfit for its original purpose such as domestic, agricultural, or industrial use or reduce the water quality to such a state that human intervention is required to restore it to its original quality?					
4. Environmental duty of care and prevention of pollution (Section 28 of NEMA and Section 19 of NWA) – Did Eskom fail to take reasonable measures to prevent pollution or degradation from occurring?					
5. Environmental duty of care and prevention of pollution (Section 28 of NEMA and Section 19 of NWA) – Did Eskom fail to prevent pollution or degradation from continuing?					
6. Environmental duty of care and prevention of pollution (Section 28 of NEMA and Section 19 of NWA) – Did Eskom fail to implement measures to prevent pollution or degradation from recurring?					
Specify legislation, the applicable section within legislation, and licence condition that were con	ntraven	ied.			
Classification  If "Yes" to any of the questions, classify the incident as legal contravention. If "No" to all c questions, classify as an event.	of the				

If classified as a legal contravention, check against the criteria below to determine whether the incident is a FBS.

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## LC as a result of FBS criteria:

**FBS definition**: These are specific case(s) of environmental legal contravention incidents that are considered to be of very high significance in terms of its environmental impact and/or Eskom in that they have a material business impact and illustrate a significant failure of business systems. Within the above principles, they are identified in terms of the criteria below. If any one of the criteria specified in Appendix C or the principle defined above is relevant to a specific contravention of environmental legislation, then that environmental legal contravention incident is a potential "environmental legal contravention incident as a result of FBS" and/or the criteria below.

Criteria <sup>2</sup>	Yes	No
1. The environmental legal contravention incident results in formal censure from the government. These are a compliance notice, a directive, a fine (including a NEMA Section 24g application), or prosecution.		
2. The environmental legal contravention incident is not reported through the initial notification to the applicable department according to this procedure (240-133087117).		
3. The environmental legal contravention incident is considered a repeat environmental legal contravention (using the process flow found in Appendix A of this document). Note: This criterion can only apply if the previous incident was classified as an environmental legal contravention.		
4. The corrective action(s) for the legal contravention incident is not implemented within 30 days after the due date according to this procedure (240-133087117).		
FBS (any shaded area marked)		

<sup>&</sup>lt;sup>2</sup> The above criteria are applied in conjunction with the definitions for LCs and FBSs, taking into account the associated principles.

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# Appendix D: NEMA Section 30 Control of Incidents and NWA Section 20 Control of Emergency Incident Classification and Reporting Guidance

This section must be read in conjunction with NEMA s30 (control of incidents) and NWA s20 (control of emergency incidents). The emergency response plan or procedure must be initiated for all NEMA S30 and NWA S20 incidents.

## Classification and reporting guidance

For an incident to be a NEMA S30 incident, the following elements highlighted within the definition of an incident must be triggered:

# NEMA Section 30 INCIDENT(S)



#### **DEFINITION**

An unexpected, sudden, and uncontrolled release of a hazardous substance, including from a major emission, fire, or explosion, that causes, has caused, or may cause significant harm to the environment, human life, or property.



Classify as NEMA s30 if all elements that are highlighted in the definition are triggered.

**CLASSIFICATION** 



## **REPORTING**

Alarm report to (INO 24 hours): DFFE, provincial HOD,

divisional/subsidiary environmental manager, municipality (relevant IP, SAPS & Fire dept. where necessary).

Incident report (14 days) to: DFFE, provincial HOD, Corporate:EM

## NEMA Section 30A SITUATION(S)



#### **DEFINITION**

A situation that has arisen suddenly that poses an imminent and serious threat to the environment, human life, or property, including a 'disaster' as defined in Section 1 of the Disaster Management Act, 2002 (Act 57 of 2002), but does not include an incident referred to in Section 30 of this Act (NEMA).



## **REPORTING**

Regulation GNR. 310, gazette on 10 April 2015

Regulations relating to the procedure to be followed when oral requests are made in terms of Section 30 A. NB: Applications must be submitted before commencement activity.

Note: Emission incidents must be classified and reported in terms of the requirements of the AEL, in conjunction with NEMA s30 and the AEL Practice Note.

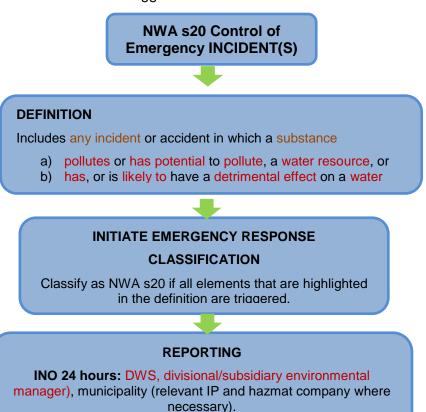
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For an incident to be a NWA s20 incident, the following elements highlighted within the definition of an incident must be triggered.



Corrective Action Plan to: DWS, divisional/subsidiary

# Action required for NEMA S30 incidents (Control of Incidents) and NWA S20 incidents (Control of Emergency Incidents)

- 1. Determine if the incident is a NEMA S30 or NWA S20 incidents using Appendix D above, applicable legislation, and consulting the divisional/subsidiary environmental manager.
- 2. Submit initial notification to the relevant divisional/subsidiary environmental manager, DFFE, and/or DWS.
- 3. Notify relevant stakeholders as prescribed in this procedure, and process flow in Appendix D. Initiate investigation within 24 to 48 hours. Investigations for NEMA S30 incidents must be completed within 14 calendar days.
- 4. Submit investigation report to DFFE and divisional/subsidiary environmental manager on the DFFE template within 14 days of the NEMA S30 incident. For NWA S20 incidents, a follow-up letter containing investigation results and corrective actions must be completed and submitted to the DWS as soon as the investigation is concluded. The divisional/subsidiary environmental manager must be consulted before final reports being communicated to the authorities.

Provide additional information to authorities once investigation is concluded and/or corrective and preventive actions are implemented.

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# Appendix E: Investigation requirements guidance

This section provides guidance on the types of causes (adapted from the SAP Quality Issue Management System) required for the various levels of investigations according to the priority rating in Table 3.5.2.

Apparent cause	Identified through the facts of an incident and, if corrected, will reduce the consequence of future similar incidents. Recurrence is not expected, and the emphasis is mainly to correct this present incident.
Contributory cause	Contribute to the incident occurring but is not the only cause of the incident. If the cause is corrected, it will not prevent the incident from occurring. However, it is important enough to be identified and corrective actions determined to improve the quality of the process to prevent future incidents from occurring.
Direct cause	Direct or immediate reasons why the incident occurred.
Root cause(s)	The fundamental issue(s) that can reasonably be identified by following a root cause analysis process. Root causes may be within management control or as an external factor. Effective corrective action(s) for the <b>prevention of reoccurrence</b> can be generated for those causes within the control of management, so that removing the cause would have prevented the incident from occurring and, if eliminated/rectified, would prevent reoccurrence.