

"Good Green Deeds towards a Recycling Economy and Sustainable Land Remediation"

## **NEMA SECTION 30 & 30A NEMA**

















"Good Green Deeds towards a Recycling Economy and Sustainable Land Remediation"

Control of Incidents, **Emergency situations** & Remediation Orders Conundrum













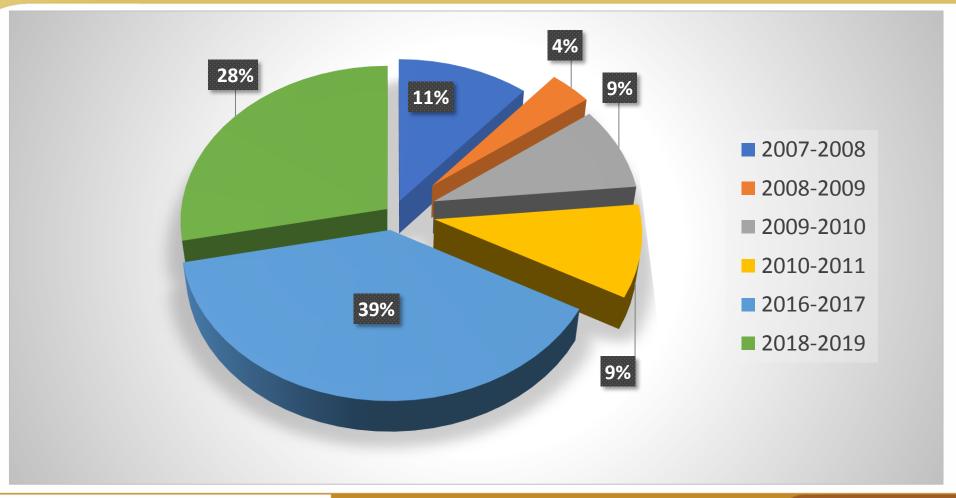






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# Visual of DEFF National Incidents













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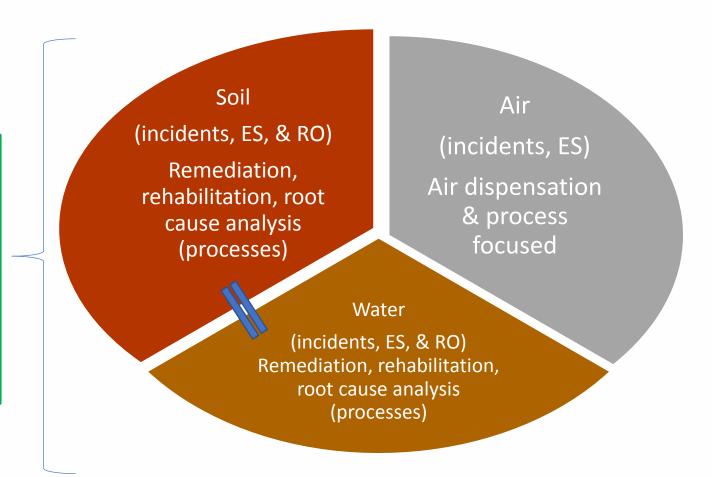




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Control of Incidents,
Emergency situations
&
Remediation Orders

Conundrum















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- Section 30 of NEMA deals with the "Control of Incidents";
- Paragraph (a) of s.30(1) of NEMA defines an incident;
  - Definition 'incident' means 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"
- **NB:** An call report would be an incident under this section if "**ALL**" the elements of an 'incident' are triggered. Elements are coloured red.

















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Hazardous substance vs
Hazardous Waste

"hazardous substance" – a solid, liquid, vapour, gas or aerosol, or combination thereof, which is a source of danger to persons and to the environment, by reason of its toxic, corrosive, irritant, strongly sensitizing or flammable nature, or because it generates pressure through decomposition, heat or other means"

"hazardous waste" – contains hazardous substances, has the characteristics of a hazardous substances and therefore classified as such













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## Hazardous waste involved in incidences as contemplated in section 30 of NEMA could result from:

- Hazardous wastes as per definitions in either the National Water Act, 1998 (Act 36 of 1998) (NWA) or the National Environmental Management: Waste Act, 2008 (Act 59 of 2008) (NEMWA); or
- Classified as hazardous waste in SANS 10234 as per requirements of GNR 634 of 23 August 2013; or
- Hazardous substances as *per* the intent and relevant definition of the Hazardous Substances Act, 1973 (Act 15 of 1973) (HSA) and hazard and substance in the Occupational Health and Safety Act, 1993 (Act 85) of 1993) (OSHA) becoming a waste because of an incident and hence requiring remediation and/or disposal, and/or treatment, and/or recovery, and/or reuse as *per* the relevant definitions for these activities in NEMWA.















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Modimolle Sulphuric acid spillage













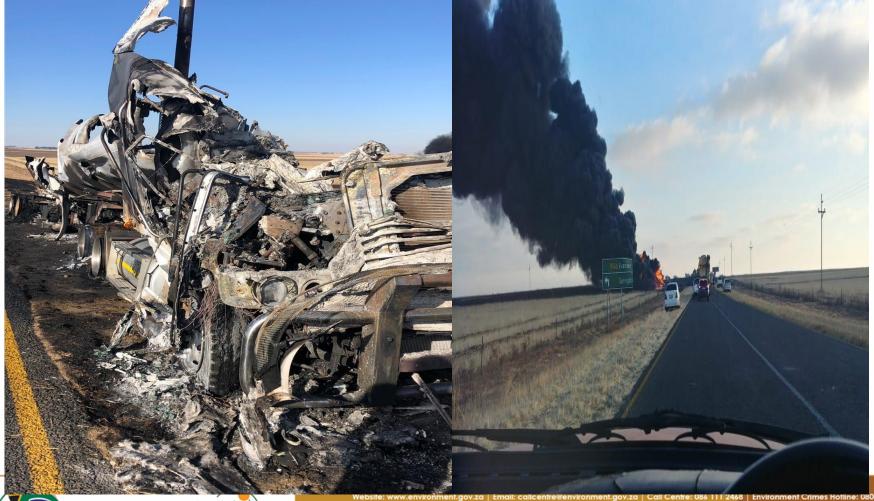






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# Gas line fire Standerton & CharlCilliers









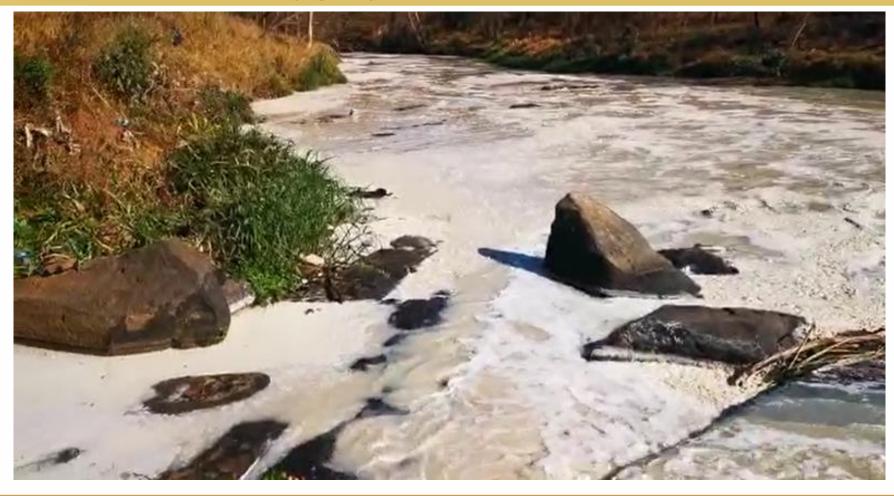






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# Willowton Group oil spill choking Dusi river



































Clean-up operation at Dusi River







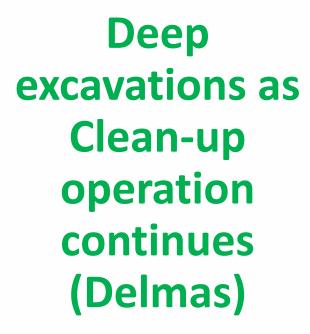






























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# Summary of Section 30 of NEMA

Action No.	Action	Responsibility	Reference
1	Initial reporting of an incident to the authorities	RP	S. 30(3)
2	Containing and minimising the effects of the incident on the environment, health, safety and property of persons	RP RA	S. 30(4a) S. 30(8)
3	Undertaking clean-up procedures	RP RA	S.30(4b) S.30(8)
4	Remedying the effects of the incident	RP RA	S.30(4c) S.30(8)
5	Assessing the immediate and long-term effects of the incident on the environment and public health	RP	S. 30(4d)
6	Initial evaluation reporting within 14 days of the incident	RP	S.30(5)
7	The issuing of a directive by a Relevant Authority for actions 2-6 above	RA	S.30(6)
8	Confirmation of a verbal directive in writing	RA	S.30(7)
9	Undertaking of actions 2-4 by the Relevant Authority	RA	S.30(8)
10	Claiming reimbursement of all reasonable costs from every Responsible Person	RA	S. 30(9)
11	Comprehensive reporting by a RA which has exercised actions 7-9 above	RA	S.30(10)







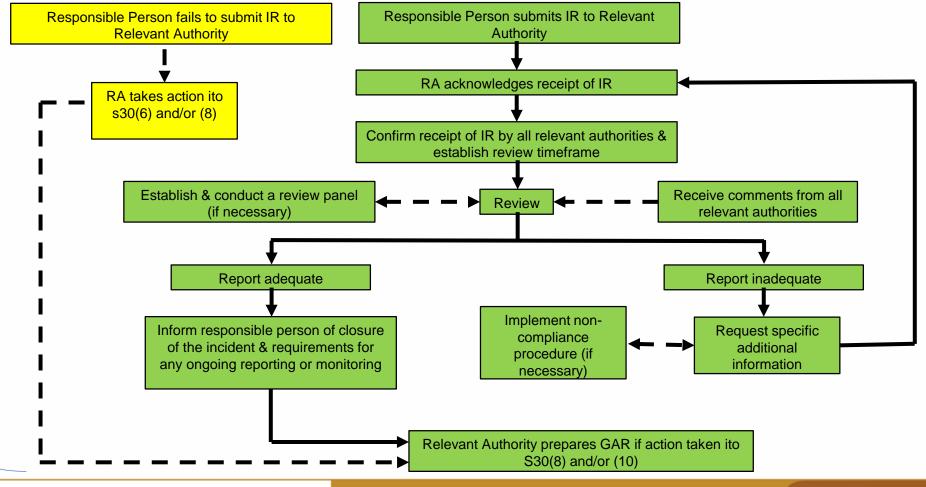






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Flow
diagram
from receipt
of incident
notification















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## Offenses & Penalties

- s49A: Offences
  - (i) fails to comply with section 30(3), (4), (5) or (6); (j) contravenes section 31(7) or (8);
  - s49A(2)= Defense to a charge

### 49B. Penalties

• (2) A person convicted of an offence in terms of section 49A(1)(i) = fine notmillion exceeding R5 imprisonment for a period exceeding 5 years, and in the case of a second or subsequent conviction to a fine not exceeding R10 million or to imprisonment for a period exceeding 10 years, and in both instances to both such fine and such imprisonment.















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# CRITICAL AMENDMENTS TO S30 OF NEMA

Previous wording (2009)	New wording ( <del>20142</del> 013)	Comment
Emergency incident	Incident	The word "emergency" has been removed.
Unexpected, sudden occurrence	Unexpected, sudden and uncontrolled release of a hazardous substance	"unexpected" and "sudden" have been retained, but the "occurrence" has been narrowed down to "uncontrolled release of a hazardous substance", which is more helpful than the old wording of "occurrence" which was very broad.
Leading to serious danger to the public or potentially serious pollution of or detriment to the environment	that causes, has caused or may cause significant harm to the environment, human life or property	"Leading" has been substituted by "causes" "Significant harm" has been substituted for "serious danger" and "serious pollution" "Property" has been included
Whether immediate or delayed	that causes, has caused or may cause	The idea of immediate and future pollution as contained in the old wording has been extended to cover past pollution as well.











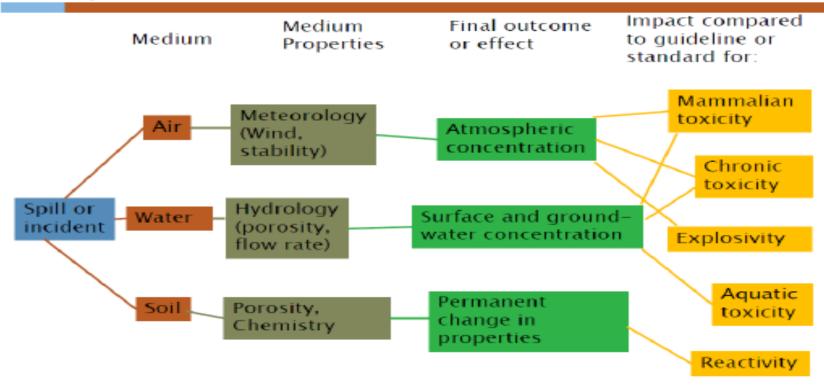






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## Spill effects



AMENDED S30 OF NEMA GUIDELINE CONSIDERS EXPOSURE PATH WAYS

Figure 1: Exposure pathways subsequent to a spill













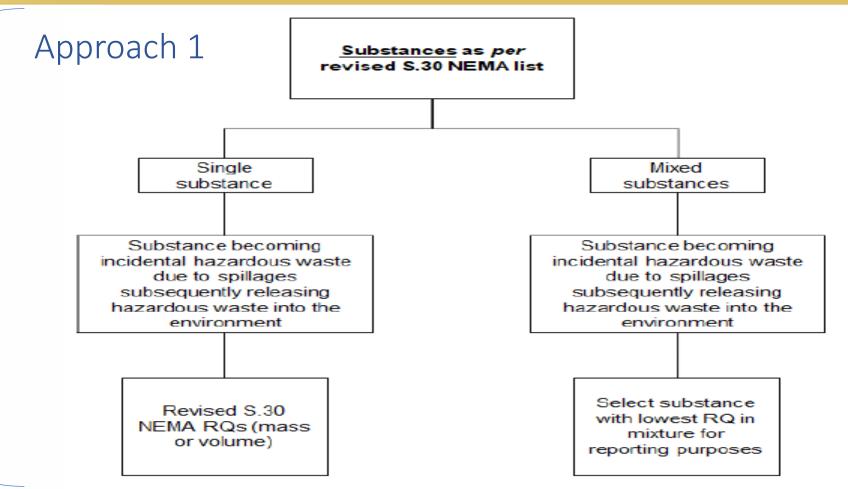




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REPORTING THRESHOLD APPROACHES IN CASE OF WASTE















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Approach 2

Waste as per definition of NEMWA and/or NWA if hazardous as per SANS 10234

Waste remaining waste but now distinguished as incidental hazardous waste requiring immediate and complete clean-up for further management e.g. re-use, recycling, recovery or disposal (complying to S.30 NEMA)

> Select substance with lowest RQ from substances making up the waste, for reporting purposes

REPORTING **THRESHOLD APPROACHES IN CASE OF WASTE** 













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Harmonisation with GHS/SABS 10234 (SABS 2008)

### Table 11: RQs for GHS Hazard Codes/Statements

Hazard code	Hazard statement	Proposed RQ (lb)	Proposed RQ (kg)
H200	Unstable explosive	1	0.5
H201	Explosive; mass explosion hazard	1	0.5
H220	Extremely flammable gas	100	50
H222	Extremely flammable aerosol	100	50
H224	Extremely flammable liquid and vapour	100	50
H225	Highly flammable liquid and vapour	1000	500
H226	Flammable liquid and vapour	5000	2500
H250	Catches fire spontaneously if exposed to air	1	0.5
H251	Self-heating; may catch fire	1	0.5
H260	In contact with water releases flammable gases that may ignite spontaneously	1	0.5
H270	May cause or intensify fire; oxidizer	1	0.5
H271	May cause fire or explosion; strong oxidizer	1	0.5

















HAZARD STATEMENT

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### Table 2: List of hazard codes and RQ values

HAZARD CODE

TIAZATID CODE	TIAZATID STATEMENT	THOI OSED HQ (KG)
H200	Unstable explosive	0.5
H201	Explosive; mass explosion hazard	0.5
H220	Extremely flammable gas	50
H222	Extremely flammable aerosol	50
H224	Extremely flammable liquid and vapour	50
H225	Highly flammable liquid and vapour	500
H226	Flammable liquid and vapour	2500
H250	Catches fire spontaneously if exposed to air	0.5
H251	Self-heating; may catch fire	0.5

List of hazardous substances based on CAS numbers













PROPOSED RO (KG)





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### ANNEXURE 3 ALPHABETICAL LIST OF HAZARDOUS SUBSTANCES

NO.	NAME	CAS CODE	RQ FINAL
1	(4-Chloro-2-methylphenoxy) acetic acid	94-74-6	100
2	1-(2-(2,4-Dichlorophenyl)-2-(2- propeny- loxy)ethyl)-1H-imidazole	35554-44-0	10
3	1-(2-(2,4-Dichlorophenyl)-4-propyl-1,3- dioxolan-2-yl)-methyl-1H-1,2,4,- triazole	60207-90-1	1000
4	1-(4-Chlorophenoxy)-3,3-dimethyl-1-(1H- 1,2,4-triazol-1-yl)-2-butanone	43121-43-3	100
5	1,1- Dimethoxyethane	534-15-6	10

# Guideline Document New List of Hazardous Substances

















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# Emergency Situations















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# When disaster strikes!!!!!



- Business terminations;
- Social life affected
- Disaster declaration;
- Temporary/permanent settlement elsewhere;
- Triggering EIA listed activities
- Etc















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18-20 September 2019

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## Recovering what is left



## Save your life:

man tries salvage some of his furniture at an informal settlement BottleBrush, south of Durban, after torrential rains and flash floods destroyed his home on 23 April 2019

















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- Desalination plants
- Boreholes

Drought relief measures

environmental affairs

REPUBLIC OF SOUTH AFRICA















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# Railway damage

















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# **Collapsed Rail bridge**

















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# Submerged House

















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**Unearthing** submerged house & railway stabilisation



















# WHAT CONSTITUTE AN EMERGENCY SITUATION?

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### **Emergency Situation (ES) definition**

- (S.30A(7)):
  - "a situation that has <u>arisen suddenly</u> that <u>poses an imminent</u> and <u>serious</u> threat to the <u>environment, human life or property</u>, including a '<u>disaster</u>' as defined in section 1 of the Disaster Management Act, 2002 (Act No. 57 of 2002), but does <u>not include an incident</u> referred to in section 30 of this Act"
- Disaster as defined in the Act, 2002 "means a <u>progressive</u> or <u>sudden</u>, widespread or localised, natural or human-caused occurrence....."

### NB:

- Does not necessarily be a hazardous substance
- all the elements coloured above must be met to categorise a situation as an ES, and
- Triggers Listed Activities

















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- **Reg (2)** defines the **purpose** of the regulation and outline the procedure for the submission and processing of an **ORAL** request for a **VERBAL** directive in terms of s. 30A(1) of the Act:
- Who may apply or request for verbal directive?
- Reg (3)(1) any person who reasonably foresees that;
  - a) may commence with a listed or specific activity;
  - b) may commence with such listed or specified activity in direct response to a situation that has risen suddenly that poses an imminent and serious threat to the environment, human life or property;
  - c) may commence with a listed or specified activity directly in response to a disaster;

# S30A NEMA REGULATIONS

















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## • Reg (3)(2)

- the **competent authority** may on its own initiative direct a person verbally or in writing to carry out a listed or **specified** activity, <u>without</u> obtaining an EA contemplated in section 24(2)(a) or (b), in order to prevent

## Reg (3)(4)

- These regulation does not apply in the event a person has already commenced with a listed or specified activity..

**S30A NEMA REGULATIONS** 











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- INFORMATION REQUIRED BEFORE VERBAL DIRECTIVE IS ISSUED.
- Reg (5)(1): the person must submit information on:
- a) The nature, scope and possible impact of the ES;
- b) The cause of the ES;
- c) The proposed measures to prevent or to contain ES or to prevent, contain or mitigate the effect of the ES and;
- d) The listed or specified activities that will be commenced with response to the situation



















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#### Reg (5)(2)

• CA may request <u>additional information</u> to be able to issue the verbal directive, including submission of photographs of the emergency situation.















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# Factors to consider whether or not to issue verbal directive in terms of Reg (6)(1);

- a) the nature of the emergency situation;
- b) the information contained in the request;
- c) whether the ES was caused by or fault of a person;
- d) the principles contained in section 2 of the Act; and
- e) prevention, control or mitigation measures to contain the effects of an ES

















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#### Issuing of verbal directive

- s.30A Reg (8)(2)
  - Verbal directive must be issued with 6 hours after receipt of all information required....
- s.30A Reg (8)(3)
  - Verbal directive must be confirmed by CA, in writing, within 7 days of issuance of the verbal directive

















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#### **Undertaking specific measures**

- s.30A Reg (9)
  - ☐ CA may direct the person to undertake specific measures within specific time..
- s.30A Reg (10).
  - ☐ The person made the oral request must submit a written confirmation of the request with 24 hours (by hand, email of fax to CA).

















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- Site inspection
- s.30A Reg (11)
  - ☐ CA where reasonably possible, will dispatched qualified and official to assess ES
- s.30A Reg (12)
  - ☐ CA may amend, suspend or revoke verbal directive

S30A NEMA REGULATIONS











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#### Reg (13)

□CA shall provide a written notice to amend, suspend or revoke verbal directive and person is given 48 hours to object.

**Reg (15)** 

- **□**Offences
  - □Its an offence for a person to wilfully, knowingly or negligently, provide incorrect or misleading information, orally or in writing to CA or EMI

















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#### S30A NEMA

#### **Penalties**

- Reg (16)
- A person convicted is liable to a fine not exceeding R10 million or imprisonment for a period not exceeding 10 years or both.



















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### Remediation of Contaminated Land



















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#### **Causes of Contaminated Land**

- Continuous historic pollution, poor management practices, waste dumped in rivers & open land, spillages left unattended.
- Pollution sources: abandoned warehouses, manufacturing facilities, processing plants and landfills, mining and agricultural activities

















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Hydrocarbon Contaminated Site from daily operations

















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# **Contaminated Tank Farms**



















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#### **Application of Part 8 of the Waste Act, 2008**

applicable to land that has been contaminated even before the promulgation of Act

- ☐ further applies to areas were high risk activities were or are taking place that have significant potential to contaminate land:
  - manufacturing facilities, processing plants and waste disposal facilities, mining and agricultural activities, petroleum refineries, etc.

#### Remediation of **Contaminated** Land















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# Remediation of Contaminated Land

- ☐ Involves the identification and notification of investigation areas by the Minister or MEC in consultation with any other organ of state;
- ☐ Owner of the land that is contaminated or person who undertakes activity that led to contamination notify the Minister or MEC;
- ☐ There are consequences of identification and notification of investigation areas















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# Consequences of identification and notification of investigation areas

- Appointment of independent specialist to conduct a site assessment
- Submission of site assessment report to the Minister or MEC.
- Determination whether the investigation area is contaminated or not.
- investigation area may be regarded as contaminated even if the findings do not indicate harm to health or the environment at the particular time but has potential detrimental impact

# Remediation of Contaminated Land

















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# Remediation of Contaminated Land

#### ☐ Consideration of the site assessment reports

- decide that an investigation area is **not contaminated** or is **contaminated** and must be **remediated** or the **risk must be monitored** and managed
- ☐ If site is contaminated, the land owner or person appoints an independent specialist to compile a remediation plan;
- ☐ Declaration of a contaminated area as a remediation site;
- Issuance of a remediation order or order in which the land owner or person must comply with;

















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#### Orders to remediate contaminated land

- RO provide details of the remediation site and conditions that must be complied with during remediation of the site.
- The Minister or MEC may instruct officials within his or her Department to ensure compliance with the remediation order or an order.

• Non-compliance with the remediation order or order is an offence (Section 67(1) fine<R10 million or to imprisonment <ten (10) years, or both such fine and such imprisonment)

# Remediation of Contaminated Land

















# Remediation of Contaminated Land

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#### Transfer of remediation sites

- If land is declared contaminated there is duty to inform the subsequent owner of the land (no transfer without notification);
- If site is already declared a "remediation site", the land owner must notify the Minister or MEC of his/her intention to transfer;
- Subsequent land owner must comply with conditions of a remediation order or order;
- The MEC must notify the Minister of the contaminated land within their jurisdiction; The Minister must notify the Registrar of Deeds to note a caveat against land declared as contaminated.

















# Remediation of Contaminated Land

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#### Contaminated Land register

- Minister maintains a National Contaminated Land Register (NCLR)
- register include details of the land owner or person, site location, types of contaminants, and status of contamination;
- Deregistration if contaminated land has been remediated and the findings demonstrate compliance with order or remediation order (if MEC is the competent authority he/she must inform the Minister to change the status of the remediation site and notify the Registrar of Deeds to remove a caveat).
- Monitoring of the Remediation Site is continuous until it is declared clean by Minister or the MEC through a consent letter.















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■ Do you need a RO to respond to an incident?

**Big Questions** 

- □ No, why?
  - ☐ Incident is a sudden occurrence, unexpected (S30 process)
  - Remediation is applicable to historically contaminated land;
  - □ To get a RO, the site must be declared contaminated first.

















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☐ Can Incidents & Emergency Situations occur while a land is under remediation?

☐ Yes, they can.

How do you deal with each of them?

☐ Incidents = Report incidents as incidents & follow procedures;

 $\square$  ES = Apply for Directive as per the ES procedure.

















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