

The Safety Report

As per the MHI Regulations
South Africa (2022)

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Presented at the CAIA Workshop,
29 July 2026

Presentation Outline

- Introduction to MHI
- History of Safety Reports
- When and Why to compile a Safety Report
- Overall structure and methodology of the Safety Report
- Incorporation of safety studies into safety reports
- Time frames for safety report



Plenty of recent local examples ... unfortunately



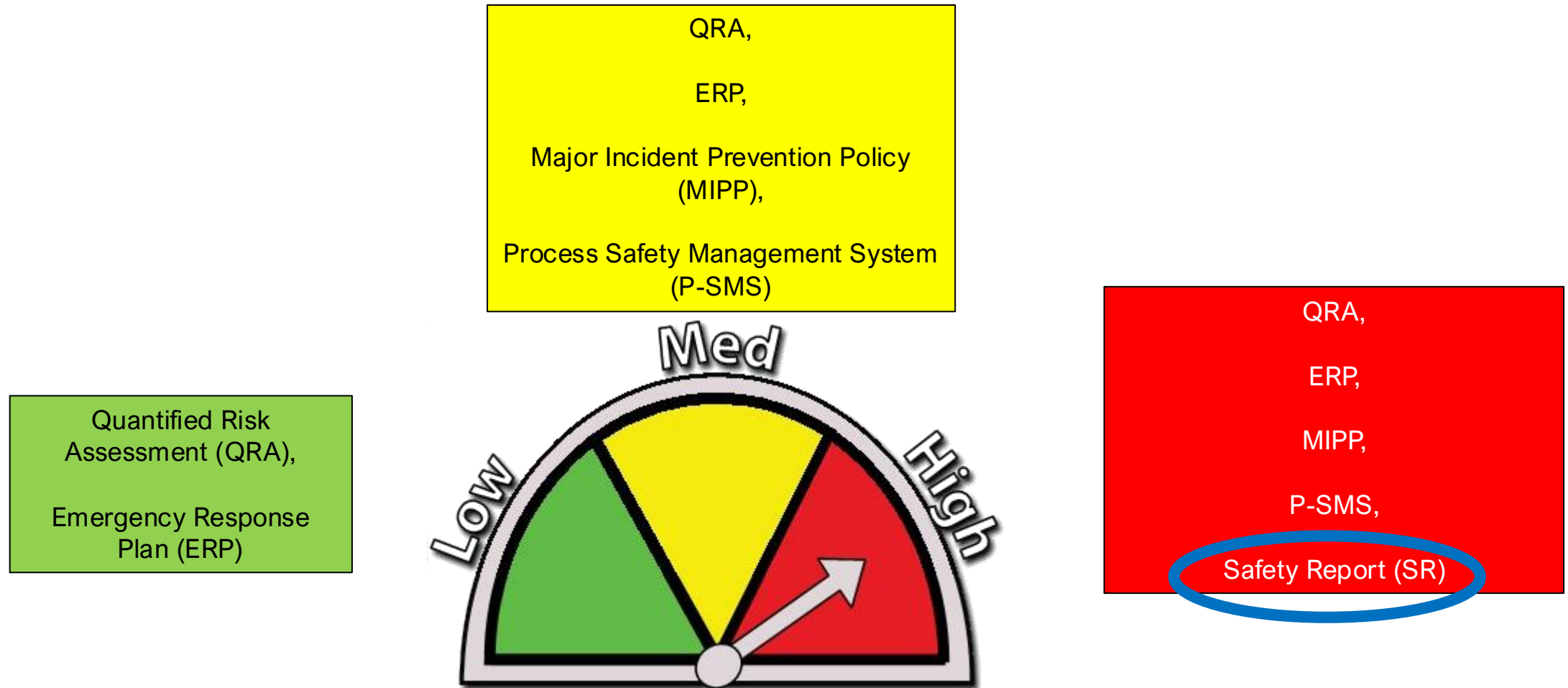
Boksburg Tanker explosion, December 2022

History of the Safety Case / Report

- 1950s: Nuclear industry: Nuclear Safety Case
- 1976: Seveso Disaster → SEVESO Directive 
- SEVESO Directive (EU-wide) → Control of Major Accident Hazard Regulations throughout EU → Safety Case requirement 
- 2022: South Africa: MHI Regulations, 2022 (follow general UK COMAH structure) 

Safety Case requirement, MHI Regs

MHI Regulations, 2022: Annexure A: Chapter 1, 2 and 3



ESTABLISHMENT HAZARD RATING

The Safety Report

ANNEXURE D SAFETY REPORTS

This gazette is also available free online at www.gpwonline.co.za

48 No. 47970

GOVERNMENT GAZETTE, 31 JANUARY 2023

MINIMUM INFORMATION TO BE INCLUDED IN SAFETY REPORT

The information referred to in regulation 12(1), (5) and (7) is as follows:

- (1) *Information on the management system and on the organisation of the establishment with a view to major incident prevention.*
- (2) A process safety management system must—
 - (a) be proportionate to the hazards, industrial activities and complexity of the organisation in the establishment;
 - (b) be based on assessment of the risks;
 - (c) include within its scope the general management system, including the organisational structure, responsibilities, practices, procedures, processes and resources for determining and implementing the major incident prevention policy.
- (3) The following matters must be addressed by the process safety management

Safety Report structure

Overview of PSM System

Description of Site, Installations and Surroundings

Identification and incidental Risk Analysis and Preventive Methods

- (a) *detailed description of the possible major incident scenarios and their probability or the conditions under which they occur, including a summary of the events which may play a role in triggering each of these scenarios, the causes being internal or external to the establishment;*
- (b) *assessment of the extent and severity of the consequences of identified major incidents;*
- (c) *description of technical consideration, methods and tools used for the safety evaluation of the establishment.*

Measures of protection and intervention to limit the consequences of an incident

- (a) *description of the equipment installed in the plant to limit the consequences of major incidents;*
- (b) *organisational alert and intervention;*
- (c) *description of internal or external resources that can be mobilised;*
- (d) *summary of elements described in subparagraphs (a), (b) and (c);*
- (e) *necessity for drawing up the on-site emergency plan.*

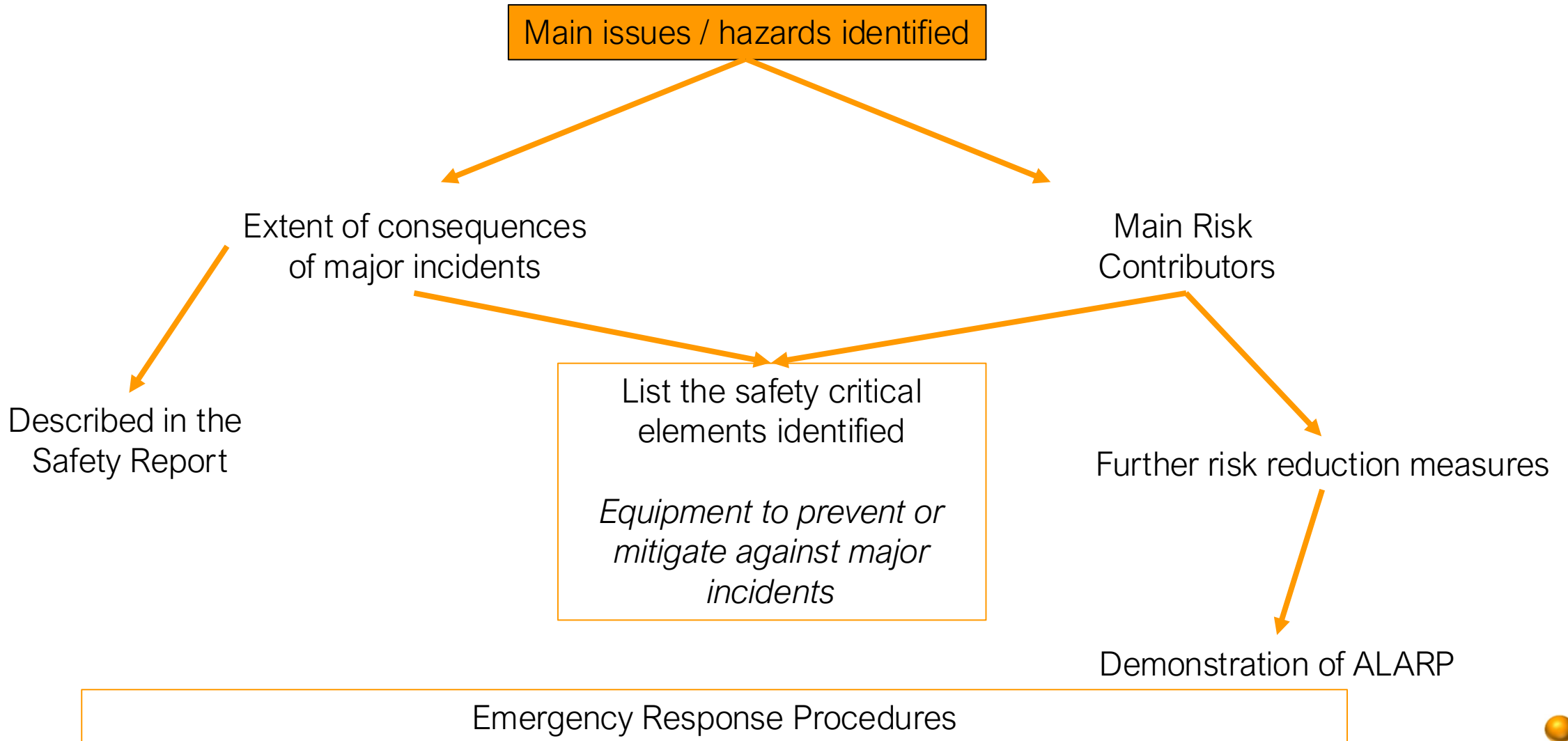
Incorporation of safety studies



Summary of main
issues identified

DISTILLED

Incorporation of safety studies



Consistency of themes

You *should* see consistency of themes through all safety studies:

- HAZOPs
 - PHAs
 - HAZIDs
 - LOPAs
- Similar causes
 - Similar major impacts
 - Similar control measures (prevention / mitigation)



Safety Report process

Information gathering
Inspection / verification
Conducting safety studies
Study reporting
Safety Report compilation
Submission to Labour

6
months
or
more

6
months
or
more

Dipotso?

Any questions?