

The role of the Explosives Inspection Body

OH&S Conference

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Contents

1	The Explosives Risk Assessment Body (AIA)
2	Legislation
3	Risk Management Process
4	Risk Identification
5	Risk Analysis
6	Risk Evaluation
7	Risk Treatment

The Explosives Manager is responsible and accountable

Regulation 12(4)

An employer, self-employed person or user shall ensure that the Explosives Manager ensures that all persons under his or her control are **informed of the hazards** related to their tasks and are thoroughly trained in safe work procedures, in particular, with respect to shock, friction risk of fire, or static electricity, and are familiar with the requirements of these regulations.

Explosives Regulations

General requirements for Explosives Facility, Process and Equipment Inspection Bodies specialising in identifying the probable frequency, magnitude and nature of any major incident which could occur at an explosives facility, processes or equipment in South Africa, is laid down in the Occupational Health and Safety Act, 1993; Explosives Regulations, **Regulations 4, 9 and 18.**

Risk Assessment Inspection Body

An Explosives Inspection Body is a legal entity approved by the Chief Inspector (CI) Occupational Health and Safety (OH&S) in the Department of Employment and Labour (DEL).

The Inspection Body is accredited by SANAS in accordance with the requirements of ISO/IEC 17020 and any additional requirements that might be determined by the CI:OH&S.

IMPARTIALITY AND INDEPENDENCE

- Fair
- Just
- Unbiased
- Unprejudiced

Free from external:

- Influence
- Intimidation
- Control
- Opinions

OHS Act S39(5)(b)

At any trial any document purporting to be a certificate or statement by an **approved inspection authority** and in which it is alleged that the article, substance, plant, machinery or health and safety equipment forming the subject of the charge complies with the requirements prescribed in respect thereof or with any particular standard, shall on its mere production at that trial by or on behalf of the accused **be accepted as prima facie proof of the facts stated therein.**

Act No. 19 of 2006

Accreditation for Conformity

Assessment, Calibration and Good Laboratory Practice

Clause 27

Criminal offence to knowingly make or assist in making a report of an untrue material fact, or to omit to state a material statement or fact.

SANAS TR 71

DEL and SANAS Technical Requirements
for the Application of SANS 17020 in the
Regulatory Assessment of Explosives
Facilities, Processes and Equipment
Inspection Bodies.

RA Report Format

Risk Based Process Safety

A company should strive to ensure that process safety activities are completed in a way that minimizes the risk to employees, the public, and the environment, whatever the level of risk.

ISO 45001 Requirements

The organization shall establish, implement and maintain processes for hazard identification that is on-going and proactive.

Risk Identification - RCA

Root cause	Direct Cause	Contributing cause
A Root Cause is a cause that, if corrected, would prevent recurrence of this and similar occurrences.	A Direct Cause is a cause that directly resulted in the occurrence.	A Contributing Cause is a Cause that contributed to the occurrence, but by itself would not have caused the occurrence.

Process Safety = Prevent initiation

Preventing initiation is the best place to intervene to stop the chain of events leading to an explosion.

Quantifying Risk

Risk = Likelihood x Severity

Risk Analysis - FMEA

Risk	Cause	Likelihood	Severity
Fire, Explosion, Release	RCA	Probability and frequency	Consequence

Controls / barriers

Detection controls	Safeguarding / Prevention controls	Mitigation / Consequence controls
• Sensors with trips and alarms, • Visual inspections	• Intrinsically safe equipment, • Low energy equipment, • Choice of clothing,	• Escape routes, • Remote operation, • PPE, • Emergency services

RISK TREATMENT

EXPLOSIVES BASIS OF SAFETY GOLDEN RULE

**LIMIT THE EXPOSURE
TO THE MINIMUM QUANTITY OF EXPLOSIVES
TO THE LEAST NUMBER OF PERSONS,
FOR THE MINIMUM PERIOD,
BY
EMPLOYING SAFE AND EFFICIENT OPERATIONS**