

Occupational Health and Safety in the Bituminous Industry

TIME TO ACT



excellence in bituminous products

Anton Ferreira

H&S Management - A business imperative

“The first duty of business is survival, and the guiding principle of business economics is avoidance of loss – not maximisation of profit.”

Peter F. Drucker

Lack of H,S(E) management = RISK

&

Risk = Potential Loss

RISK OF NON-COMPLIANCE

Pending changes in Legal requirements:

OHS Act – Construction Regulations

- Expected to be published soon

National Occupational Health and Safety Bill

- Project started February 2010
- Anticipated promulgation end of 2011

SIGNIFICANT CHANGES PROPOSED

NOHS Bill proposals:

CHAPTER 2, WORKPLACE HEALTH AND SAFETY RIGHTS AND DUTIES

PART TWO

Specific duties of employers for health and safety:

Every employer must adopt and implement a health and safety management system

A health and safety management system must specify :-

- 1) the health and safety policy and objectives of the company;*
- 2) the employer's organisation and structure, including:*
 - identifying the authority and accountability of persons for implementing the health and safety management system;*
 - defining functions with key health and safety responsibilities;*

SIGNIFICANT CHANGES PROPOSED

CHAPTER 7, OFFENCE AND PENALTIES

PART ONE

Criminal Offences

Corporate homicide

A corporate body which is under a duty to ensure the health and safety of any person in terms of any provision of Chapter 2 of this Act commits the offence of corporate homicide if a person dies and the death was due to the failure of the corporate body

Negligent occupational injury

A corporate body which is under a duty to ensure the health and safety of any person in terms of any provision of Chapter 2 of this Act commits the offence of causing negligent occupational injury if a person is injured or becomes ill and the injury or illness was due to the failure of the corporate body

SIGNIFICANT CHANGES PROPOSED

SCHEDULE 2

MAXIMUM FINE OR PERIOD OF IMPRISONMENT THAT CAN BE IMPOSED FOR A CONTRAVENTION OF THE ACT

SECTION	MAXIMUM FINE OR PERIOD OF IMPRISONMENT
Sections 13 – 23	R500 000 or 5 years imprisonment
Section 33	R200 000 or 2 years imprisonment
Sections 35, 36	R300 000 or 3 years imprisonment
Section 121	R1 000 000 or 10 years imprisonment
Sections 122, 123	R500 000 or 5 years imprisonment
Section 126	R200 000 or 2 years imprisonment
Sections 127, 128, 129, 130	R50 000 or 6 months imprisonment
Section 131	R300 000 or 3 years imprisonment

HOW DO WE DEFEND?

It is a defence in any proceedings in which it is alleged that a person has contravened a provision of this Chapter –

- if the method of controlling the risk in respect of which the contravention is alleged to have occurred is prescribed by regulation or notice, the person took the steps required by the regulation or notice to prevent the contravention;
- if the Minister has issued a code of practice relevant to the alleged contravention, the person met the relevant requirements of the code of practice or adopted a method of complying with the duty or controlling the risk so that an equivalent level of protection was provided;
- if neither paragraphs (a) or (b) are applicable, the person took all precautions and exercised due diligence to prevent the contravention.

SABITA HSE - MS



SABITA HSE – MS

Modelled on:

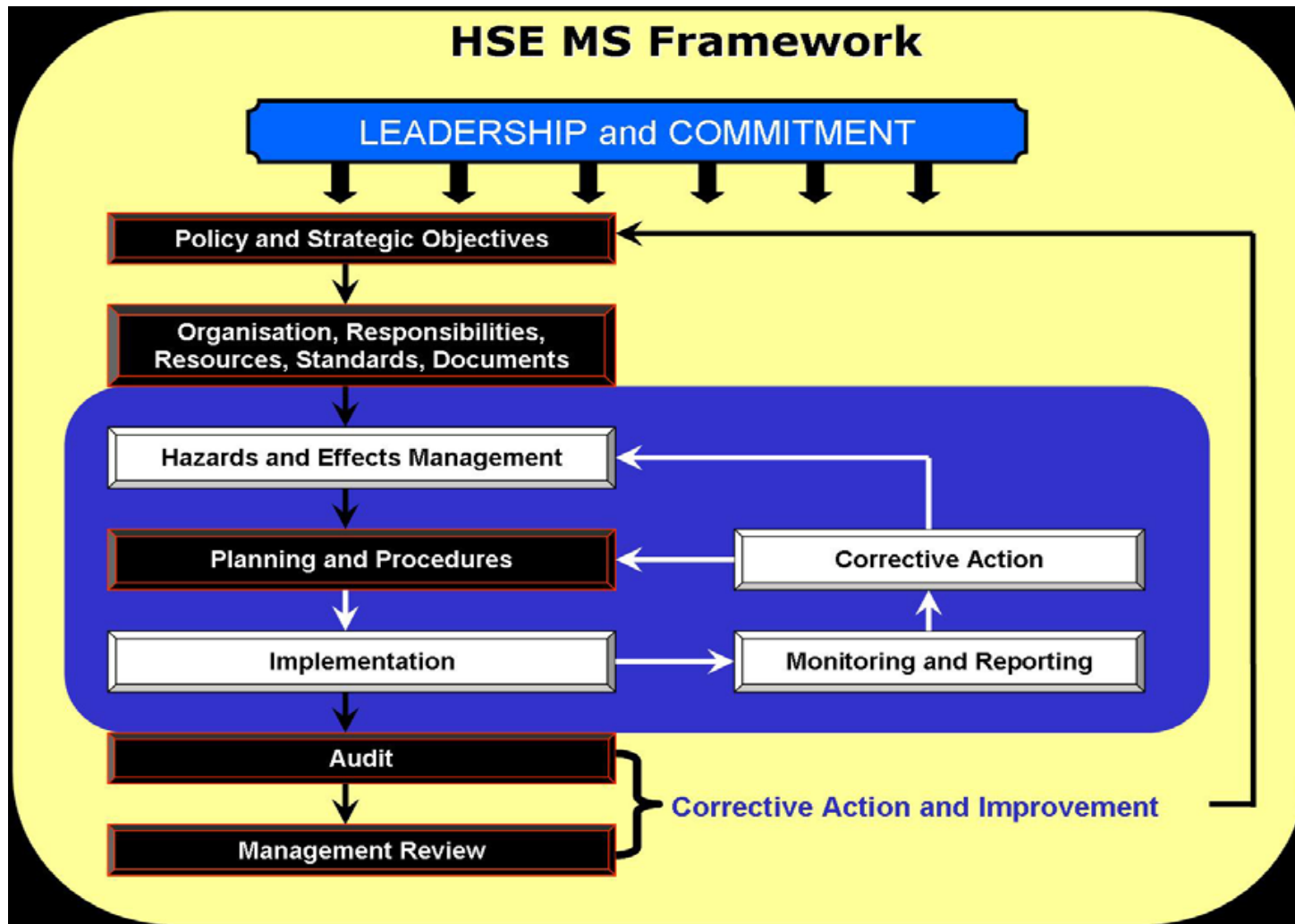
- OHSAS 18001 (British Standard)
- Oil Industry HSE MS procedures
- Strong link to ISO 9000 and 14000 family of Standards

Draws on best available Industry standards and practice

Aims to satisfy:

- Minimum legal requirements as applicable
- SABITA HSE Charter
- SABITA Member's HSE management requirements (provides a generic template)

SABITA HSE - MS FRAMEWORK



ACT NOW !

- ❑ It takes time to set up and implement an HSE MS
- ❑ **Competent** HSE practitioners/resources are not “abundantly available” in SA

Questions?

HSE – MS STRUCTURE

- ❑ 8 Elements make up the Core Expectations
- ❑ 26 (Sub) Expectations provide the detailed requirements of the Core Expectations
- ❑ 46 Processes/actions required to meet the MS expectations

HSEMS

HSE – MS STRUCTURE

Example:

❑ Leadership and Commitment

Core expectation:

Create and sustain an organisational culture that supports effective HSE management through appropriate personal behaviour of leaders at all levels

(Sub) Expectation:

Management demonstrates strong commitment, accountability and visible leadership to HSE through measurable actions

Process/action to meet requirement:

Personal involvement in the review of significant incidents and the audit process;

HSE is the first item on the agenda of all Executive Management meetings to ensure that managers are engaged and provide guidance on HSE issues;

Hazards And Effects Management Process

□ HSE-MS Element – Hazards and Effects Management

Core expectation:

Provide structured support for a *systematic approach* to manage HSE Risks

(Sub) Expectation:

Ensure employees and contractors are aware of the hazards and risks associated with their jobs

The legal foundation for this expectation is found in the Occupational Health and Safety Act, 1993 Section 8 and Section 13 which clearly place a firm obligation and duty on an CEO to comply with this HSE-MS expectation.

The HEMP is also the “heart” of the HSE MS and without it the MS is “destined” to fail.

HEMP – How it works

Four steps:

- 1. Identify hazards/effects**
(Threats, Consequences)
- 2. Assess risks**
(Classify using RAM)
- 3. Control**
(Identify/develop controls)
- 4. Recover**
(Mitigate potential consequences)

ALARP ?

Shell Ireland Bitumen site



HEMP TOOLS

- **Hazard Hunts and Brainstorming**
- **Hazard Identification (HAZID)**
- **Risk Assessment Matrix (RAM)**
- **THESIS (BowTie XP)**
- **Job Hazard Analysis (JHA/JSA)**
- **Health Risk Assessment (HRA)**
- **Environmental Impact Assessment (EIA)**
- **Hazard and Operability Study (HAZOP)**
- **Fire Radiation Explosion Dispersion (FRED)**
- **Quantitative Risk Assessment (QRA)**
- **Layers of Protection Analysis (LOPA)**
- **Health Impact Assessment (HIA)**

HEMP OUTPUT

The Hazard Register

HSEMS

IMPLEMENTING THE HSE - MS

Where do we start ?

A suggested strategy:

- **HSE Policy and Commitment (Endorsed by CEO)**
- **CEO appoints HSE – MS Custodian**
- **Compile Hazard Register (Understand what to manage)**
 - ✓ Hazards/Threats/Potential Consequences identified
 - ✓ Location/Activities/Tasks/Controls identified
 - ✓ Positions/HSE competence/Training needs identified
 - ✓ Gaps identified and documented in a Remedial Action Plan
- **Now set up the HSE organisation required to maintain the necessary barriers and controls**

IMPLEMENTING THE HSE - MS

Implementation is project driven:-

- Train key personnel
(HEMP practitioner/s, Supervisors)
- Set up HEMP task teams
(HSE, Operations, Engineering)
- Compile Hazard Register/s
- Focus on HIGH/MEDIUM Risks and develop Hazard Control Sheets, Procedures, Work instructions, Emergency Plans, etc. as necessary to bridge gaps
- Update Job Descriptions of staff to establish clear responsibilities and accountability
- Train personnel in HSE Critical positions

IMPLEMENTING THE HSE - MS

- ❑ Set *realistic* objectives and targets for systematic “phased” implementation of all HSE – MS expectations (focus at “micro” operational level rather than the “macro” level)
- ❑ Consider a process of “review & sign-off” (hand shakes) for each completed stage of implementation before continuing to the next stage
- ❑ Establish (as early as possible) a system of internal review/self assessment to monitor progress and initiate timely corrective actions
- ❑ **Ensure that competent resources are available to support personnel responsible for implementation**

IMPLEMENTATION SUPPORT

- ❑ Supplementary to HSE -MS
- ❑ SABITA HSE Certification Scheme
- ❑ SABITA HSE Guidelines (**Under revision**)
- ❑ Code of Practice - Loading of bitumen at Refineries
- ❑ Guide to the Safe Use of Solvents in a Bituminous / Asphalt Materials Laboratory
- ❑ Incident Notification, Investigation and Reporting procedure for SABITA Members (**Under development**)
- ❑ Various other support materials and programs available to SABITA members
- ❑ Limited support from SABITA HSE consultant

SABITA HSE - MS

- Questions ?**
- Suggestions for improvement of this presentation/workshop ?**