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# GENERAL NOTICES • ALGEMENE KENNISGEWINGS

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## DEPARTMENT OF EMPLOYMENT AND LABOUR

### NOTICE 2841 OF 2024

## Explanatory Notes: Major Hazard Installation Regulations, 2022

### 1. Introduction

This guidance aims to help duty holders successfully implement and comply with the **Major Hazard Installation (MHI) Regulations, 2022**.

- The MHI Regulations 2022, incorporate the United Nations' Transportation of Dangerous Goods (TDG) Guidance also known as the Orange book, the local government hazardous material and land use requirements, the South African National Standards: SANS 1461: Quantitative Risk Assessment Standard for Hazardous Installations and SANS 1514: Major Hazard Installation: Emergency Plan.
- These Explanatory Notes replace the April 2005, Explanatory Notes to the repealed Major Hazard Installation Regulation, 2001.
- These Explanatory Notes are meant for MHI duty holders, local government, emergency planners and others who would find this explanatory useful.
- These explanatory notes apply to an establishment having any dangerous substance specified in *Annexure A*, present at or above the qualifying quantity verified by an Approved Inspection Authority (AIA) is subject to these Regulations. There are three categories or tiers, known as lower hazard establishment, medium hazard establishment and high hazard establishment.

*Refer to Flow Chart 1 & 2 (High Hazard Establishment), Chart 3 & 4 (Medium hazard Establishment and Chart 5 (Low Hazard Establishment).*

- The Regulations define dangerous substances using the Classification, Labelling and Packaging Regulation 2008, as amended (CLP). CLP is based on the Globally Harmonised Systems (GHS) for chemicals. CLP is amended from time to time in line with technical and scientific development. These amendments are known as 'Adaptations to Technical Progress', or ATPs, and are usually published at least once annually, the latest version will apply.
- Therefore, any reference to any legislation or standard in the MHI Regulations will always be to the latest version.
- The notes on Annexure A, of these Regulations contains rules for aggregating sub-threshold quantities of dangerous substances in the same or similar generic categories. It also sets out the rule for excluding amounts less than 2% of their threshold, if they are located so that they cannot initiate an incident elsewhere on site. Some examples of how these rules work are given in *Annexure A*, page 33-45 of the MHI Regulations, 2022.
- The MHI Regulations, 2022 indicate that even when there are no threshold quantities of dangerous substances present at a site, an establishment may still be subject to the Regulations, e.g. if specified dangerous substances are produced in quantities that pose potential to harm the employees and members of the public as a result of loss of control of a process. In that case the Approved Inspection Authorities can conduct studies to determine the MHI status of such an installation – this is to avoid unforeseen incidents.

\*\*\* The Department, as a way forward would like to develop an assessment technical training and methodology with institutes of learning that will tick all the parameters of MHI study. The anticipated software would have to be taken forward in the form of a new tool for MHI study. Any duty holder, AIA or interested parties wishing to assist in achieving this output should forward submit their interest to the Department and discuss the assistance they can provide in this regard.

## 2. Background

- The purpose of MHI Regulations is to:
  - (a) ensure establishments are properly zoned by local government;
  - (b) protect the employees and public members from major incidents (that is, persons close to and further away from the establishment but their health and safety can be adversely impacted by the incident from an establishment); and
  - (c) ensure that the duty holders and the local government have an emergency preparedness plan in place both on-site and off-site.
  
- The major incidents may give rise to serious physical injuries to employees, persons at work or outside the boundaries of the establishment or serious damage to the environment. A number of major incidents occurred in Europe during the 1970s, the most significant of which took place in Seveso, Italy, in 1976. Such incidents, and the recognition of the differing standards of controls over industrial activities within the European Union, led the European Commission to propose a Directive on the control of major industrial accident hazards.
  
- The European Union, Control of Major Accident Hazards Regulations were adopted as a framework. The first Regulations were promulgated in 2001 and called **MHI Regulations**.
  
- The MHI Regulations, 2001, amongst others lacked thresholds quantities and as such there was a need to review the 2001 Regulations and newly enhanced Regulations were promulgated in 2022.
  
- The reasons for reviewing included: development of prescribed quantities, hazard classification system and, alignment of these regulations with dangerous goods requirements, formalisation of MHI registrations, incorporation SANS 1461 and SANS 1514.
  
- The set of MHI Regulations, 2022, are based on the Health Executive Safety: United Kingdom (HSE), the Control of Major Accident Hazard (COMAH) Regulations, 2015 and captures good practices and lessons learned from major incidents in Europe, Italy, Bhopal, Beirut and beyond.
  
- The differences between the updated MHI Regulations of 2022 and the repealed outdated MHI Regulations of 2001 are found in the:
  - newly added definitions;
  - changed definitions; and
  - new requirements.

The transition arrangements are expected as follows:

Regulation	Description	Time Frame
2	application of MHI Regulations of 2022	Immediately for all MHIs
3	designation of responsible persons	Immediately for all MHIs
	updating existing establishment information and full registration	after 24 months
	Registration	immediately for new and modified establishments;  24 months for existing establishments

9	sharing of information for designated establishments	after the chief inspector's designation
10&15	Incorporation of SANS 1461 and SANS 1514	Immediately
11	Major Incident Prevention Policy	36 months
12	Safety Reports	36 months
13	Licence to Operate	36 months
17	Information and training	Immediately
19	payable fees	immediately for new establishments within 24 months for existing establishments
23	Closure	Immediately

- Expectation form local government includes:
  - correct land use planning, granting of permissions of MHI establishments in jurisdicitive areas and emergency planning requirements.
- Expectations form duty holders includes:
  - Compliance with OHS Act and these Regulations, National Environmental Laws, National Disaster Management Laws, Fire and Emergency Services Laws and all by-laws laid down and amended from time to time by relevant local government.
- There are also added stricter and stronger requirements for provision of information to the public and overall prevention of encroachments of separation zones. Thus establishments, in collaboration with local government, must now effect public participation in the vicinity of the establishments, who are likely to be affected by major incidents. And, be informed of the extent of major incidents and relevant emergencies protocols.

Note:

*Act will be presented in italics, "normal font",*  
 these Regulations will be presented in *italics, "small font",*  
 the accompanying guidance in normal type.

The other undefined terms should be referred to the "Act"

As amended means the latest version of a legislation, standard, policy, by-laws, etc.

### 3. Acknowledgements

The Department acknowledges:

1. *The chair, Ms Judith Hackett, of the Health Safety Executive: United Kingdom who visited South Africa in July, 2015 and met with the Chief Inspector and Specialist Major Hazard Installations, discussed the of Control of Major Accident Hazard Regulations, 2015, frame work and the relevancy to South African MHI fraternity.*
2. *Dr Stuart Hankinson, Director for Control of Major Hazard Accidents Research Council, United Kingdom who met Major Hazard Installations Section in 2019.*
3. *The Major Hazard Installation Technical Committee who were assigned by the Advisory Council of Occupational Health and Safety in terms of section 6 of the Act. from as far as 2002 to 2023.*

*The obligation to comply to these Regulations lies with the duty holder. The Department acknowledges and recognises that major or process related risk cannot be completely eliminated but can be controlled to reduce exposure of employees and the public. Therefore, there should be some proportionality between the risk and the measures taken to control the risk. The Approved Inspection Authority (AIA) is enabled through these Regulations to make an informed judgement about whether a preventive or mitigation measure is necessary in relation to the major hazard and the risk the measure addresses.*

N/B:

- *At almost all situations, the prevention measures should be considered in a hierarchy based on the principles of reducing risk to a level, "as low as reasonably practicable", (ALARP). The ideal should always be to avoid a hazard altogether. This is known as inherent safety and the principles apply everywhere in these Regulations as well as to human and environmental hazards.*
- *ALARP principle:*
  - o *once a process or other activity has been selected, duty holders should look at how it can be made safer by reducing hazards, for example by reducing the inventory or replacing the dangerous substance.*
  - o *the next stage is to ensure that risks have been reduced to ALARP.*
  - o *for new establishments, ALARP will be judged on what measures would be reasonable at the design stage.*
- *Best good practice (international/local/ borrowed from industries other than MHI facilities) should be adopted as a minimum and then firstly ask: 'What more can I do to reduce the risks?' And, secondly, explain: 'Why have I not done it?'. Good practice represents a consensus between regulators, technical experts, duty holders and other stakeholders on what constitutes proportionate action to control a given hazard. Among other things it takes account of what is technically feasible and the balance between the costs and benefits of the measures taken.*
- *Where dependence is placed on people as part of the necessary measures, human factor issues should be addressed with the same rigour as technical and engineering measures.*
- *In demonstrating the ALARP principle, it does not mean the establishment complies with these Regulations or has removed the risk but the ALARP aids in ensuring that the risk is adequately controlled. As such, ALARP assists the establishments to set priorities when comparing risk outcomes, particularly where new technology is used and where there is no established good practice for comparison.*
- *The environmental requirements are laid down in the National Environmental Management Act (NEMA), the supplementing provincial Acts, the Environmental Impact assessments, environmental permissions and remedial measures for restoration of the environment in the event of a major incident will be requested by inspectors or local government where necessary and should be readily accessible upon request.*

## 4.Regulations

These below definitions entail clarifications and Interpretation of “terms” unique to the MHI Regulations, 2022 and are used in the body of these Regulations. Some, terms are defined in the “Act” and not repeated in these Regulations.

The most important definition to note is from the Act:

**“major hazard installation” means an installation-**

- (a) *where more than the prescribed quantity of any substance is or may be kept, whether permanently or temporarily; or*
- (b) *where any substance is produced, used, handled or stored in such a form and quantity that it has the potential to cause a major incident.*

There are two scenarios determining when an installation becomes an MHI, as follows:

**(a) scenario 1:**

- a. *when there is more than the prescribed quantity of a substance(s).*
- It can either be a pure substance or a mixture with prescribed quantities termed thresholds levels in Annexure A, of these Regulations:
  - Chapter 1: named substances
  - Chapter 2: categories of substances
  - Chapter 3: pipelines
- *The expectation is that the substance is classified under CLP/GHS and guided by the UN TDG document.*

**(b) scenario 2:**

- b. *when substances are produced, used, handled or stored in such a form and quantity that, has a potential to cause a major incident.*

Scenario 2, is not a preferred classification method and refers to a circumstances, where scenario 1 is not satisfied

**“major incident” means an occurrence of catastrophic proportions, resulting from the use of plant or machinery, or from activities at a workplace.**

- It is impossible to put a specific value to “catastrophe” because it will always differ from person to person and from place to place. However, when the outcome of a risk assessment indicates that there is a possibility that the public will be involved in an incident, then the incident can be seen as catastrophic or that a fatality can occur from the MHI incidents, even if it’s a single case or when employees and public members are evacuated due to an MHI emergency that is likely to escalate to major incident or when an onsite emergency plan is activated.
- As such, the major incident must lead to some uncontrolled process developments such as loss of containment, fires, toxic emission and or confined explosions. The criteria used to define the impact is, the serious danger to health and safety, or adverse impact on the environment, inside or outside the establishment; and it involves one or more dangerous substances irrespective of the quantity involved.

## 4. Regulations

### Regulation 1: Definitions

In these Regulations, -

**"affected or interested party"** means a person, group of persons or organisations interested in or affected by an establishment and an organ of state that has jurisdiction over an establishment

- Affected party being those persons that are likely to be affected by the emergency cases and or major incidents that overlap and extend outside of the boundaries of the establishment as indicated in the risk assessment report.
- Interested parties can be those persons or institutions or organizations that perceive themselves to be affected by the decisions made in these Regulations.

**"change"** means–

(a) a modification in the methods, equipment or procedures in use or the handling or processing of dangerous substances in the establishment that may increase the establishment's risk profile;

(b) an increase or decrease in the quantity of dangerous substances contemplated in Chapters 1 and 2 that results in the establishment being classified as a major hazard installation where–

- (i) a low hazard establishment becomes a medium hazard establishment or vice versa;
- (ii) a medium hazard establishment becomes a high hazard establishment or vice versa;
- (iii) a low hazard establishment becomes a high hazard establishment or vice versa; or
- (iv) an installation below the low hazard establishment threshold becomes a low, medium or high hazard establishment;

(c) when an emergency plan is brought into action for a major incident;

- change may be initiated by the duty holder through alterations to update/improvise on the current technology that might affect the risk profile of the establishment. For example, when a design plan of the establishment is in place and an adjustment is made on the design plan or the quantities.
- When the protection mechanisms have been compromised or failed to serve the purpose they were meant for, and need to be investigated and improvised.

**"dangerous substance"** means substances or mixtures used or present at the workplace that could, if not properly controlled, cause harm to people, the environment and property as a result of loss of containment, fire or explosion;

- dangerous substance in these Regulations refers a single pure substance or mixture listed in Annexure A (Chapter 1 & 2), or in a category listed on Annexure A (Chapter 3) including in the form of a raw material, product, by-product, residue or intermediate.
- Wherein, a mixture can include a single substance in solution with another.

**"direction"** means a recommendation, a notice or an instruction served by an inspector in writing;

- **A direction is provided for in the Act, in terms of "Section 30 (4) –**  
**"whenever an inspector is of the opinion that an employer or user has failed to comply with the provision of a regulation applicable to him, the inspector may in writing direct that employer or user to take within a period specified in the direction such steps as in the inspector's opinion are necessary to comply with the said provision and are specified in the direction".**
- For the purposes of administration of the MHI Regulations an inspector, appointed in terms of the Act, shall issue a direction to the duty holder and specify the timeframe expected for correction of such non-conformance made during an inspection or an investigation.



- The direction shall be a notice or a letter addressed to the duty holder indicating the recommendations made by the inspector. The notice can be a contravention, an improvement or a prohibition.

**"duty holder"** means an employer, a self-employed person, a user or a pipeline operator who is in control of an establishment;

- The duty holder should be read with section 16.1 of the Act, and by implication is a legal persona(e), who is liable in their personal capacity including the chief executive owner, managing director or board, and must have overall control of an establishment, and be responsible to ensure that the provisions of the Act, as well as these Regulations are complied with.
- This legal persona(e) is able to enter into legal contracts, employs persons and ensure that the provisions for health and safety are available, complies to the Act, Regulations and acceptable practises, maintained in optimal condition, and that a designated responsible person and his/her deputies are in place.
- The duty holder will not be a 16. (2), as they are not liable in their personal capacity but they are controlled by the duty holder. The duty holder, however may designate the 16.2 and MHI 3(1), to assist in running the establishment in a safe and fit conditions.
- Furthermore, the duty holder must ensure that the establishment was designed for purpose in accordance with good engineering practices, commissioned according to the design or construction and correct identification of those responsible person(s). they should also ensure safe operation and that all provisions of these Regulations are complied with.

**"establishment"** means a major hazard installation under the control of a duty holder where Chapter 1, 2 or 3 dangerous substances are present;

- The concept of 'establishment' depicts installation (s) which is/are within an area of land under the control of the same duty holder. Where this area of land is cut across by, for example, a road, railway or canal, that area will still remain as one establishment.
- However, a large industrial chemical complex may consist of several plants, under different ownership but are under the control of the landowner. Such plants, will be referred to, as independent establishments and are distinguished geographically by, a dividing fence or might even be interconnected, but they are different establishments for the purpose of these Regulations.
- In an event where the landowner, allows a group of independent establishments, he/she has a duty to ensure there is no domino or knock down effect. As such, a cumulative risk assessment study is to be conducted, the results be communicated to every business in the complex including the establishments, and to the local government. As such, the landowner, must consider all activities which might be relevant to major incidents within the complex. This includes not just the installations that handle dangerous substances but also the related infrastructure such as pipework and activities such as traffic movement which could be relevant to a major incident and emergencies.

These Regulations has a number of types of establishment defined in terms of their life span and categories linked to risk profile.

- Life span:
  - o existing establishment;
  - o new establishment;

- proposed establishment.
- Category:
  - Class 1: low hazard establishment (LHE);
  - Class 2: medium hazard establishment (MHE);
  - Class 3: high hazard establishment (HHE).

**"emergency plan"** means a plan contemplated in regulation 15;

- Emergency plan is a plan in writing which on the basis of identified potential incidents at the installation, together with their consequences, describes how such incidents and their consequences should be dealt with onsite and offsite.
- As such, the emergency plan has to serve two purposes, namely, the on-site which is compiled by the duty holder and off-site which is the responsibility of local government.
- The plans must be developed using the SANS 1514, as a guiding criteria to ensure that all critical elements are enclosed and that the plan will serve the purpose of saving life's in case of an emergency or a major incident.
- The on-site plan is to be followed within the boundaries of the MHI, and its activated by the establishment and the local government. On the other hand, the off-site plan is to be followed outside of the boundaries of the MHI facility and is activated by the local government.
- The onsite emergency plan has to be endorsed by local government, and must address the process hazards identified during the risk assessment survey and must also considers the passive and active measures in place and the relevant emergency resources to develop escape and evacuation routes. The offsite plans are activated and controlled by local government and the provisions of National Disaster Management Act, Fire Brigade Services Act and by-laws.

**"existing establishment"** means an establishment where dangerous substances are present in quantities listed in Chapter 1, 2 or 3;

- The establishment is in existence or operation at the current time of the promulgation of these Regulations.

**"high hazard establishment"** means—

- (a) an establishment where Chapter 1 or 2 dangerous substances are present in quantities equal to or in excess of the quantities listed in column 3 of Chapter 1 or 2; and
- (b) pipelines contemplated in Chapter 3;
- The high hazard establishments (HHE) include bulk quantities equal to or more than the prescribed quantities in column 3 of Chapter 1 and 2 as well as cross-country pipelines transporting dangerous substances. As such, water pipelines are excluded as MHIs.

**"impact zone"** means the zone where other installations or neighbours could be affected due to a major incident;

- Impact zone is loosely referred to a danger area, where there is calculated possibilities that a person either employee or public can be harmed if they are found to be in that area when a major incident occurs. process incident.

**"installation"** means a technical unit within an establishment, above or below ground level, in which substances are produced, used and stored and which includes all the equipment, structures, pipework, machinery, tools, railway sidings and quays, warehouses and similar structures necessary for the operation of that installation;

- The installation includes the entire establishment and accounts for all the inventory kept, in the internal pipelines and pipework. All the inventory must be included when determining the scope of application of these Regulations.
- An appropriate calculation must be made and accounted for. Only the inventory of pipelines with a connection to the establishment needs to be considered; the inventory of any pipelines that incidentally pass through an establishment – either above or below ground – should not be included as these pipelines are not necessary for the operation of the establishment.

**"low hazard establishment"** means an establishment where Chapter 1 or 2 dangerous substances are present and the quantity is equal to or exceeds the quantity in column 1 but is less than quantities listed in column 2 of Chapter 1 or 2;

- The low hazard establishments (LHE) are installation that keeps or stores bulk quantities equal to or more than the prescribed quantities in column 1 of Chapter 1 and 2 and just below column 2 of chapter 1 and 2.

**"licence to operate"** means a licence contemplated in regulation 13;

- Licence to operate (LTO) is a license which will be issued by the chief inspector to the high hazard establishments giving them a permission to operate.
- The LTO for existing HHE should be obtained at least 36 months after the promulgation and immediately before for new establishment.

**"major incident prevention policy"** means a policy contemplated in regulation 11;

- MIPP is a policy in writing that must be designed to guarantee a high level of protection for employees and public and the environment.
- The MHE should develop a policy that meets the criteria in Annex B and have it displayed at the establishment.
- The HHE should further to the above must demonstrate in the 'safety report' that a MIPP and a Process Safety Management (PSM) System for implementing it have been put into effect in accordance with the information set out in Annex C.
- MIPP must be readily available on site for inspection by the Department and competent authorities.

**"medium hazard establishment"** means an establishment where Chapter 1 or 2 dangerous substances are present and the quantity is equal to or exceeds the quantity in column 2, but is less than the quantity in column 3 of Chapter 1 or 2;

- The medium hazard establishments (MHE) are installations that keeps or stores bulk quantities equal to or more than the prescribed quantities in column 2 of Chapter 1 and 2 and just below column 3 of chapter 1 and 2.

**"near miss"** means an event (causing damage to property, a negative impact on the environment or loss of human life) or operational interruption that could plausibly have resulted if the circumstances had been slightly different;

- Near misses in these Regulations, are not necessary for the dangerous substance(s) incidents but include any underlying incident that might play a part in the chain of events leading to the danger.
- The substance that ultimately causes the near miss may not be a dangerous substance in MHI terms, but such substances can still cause serious danger, such as overflow and spillage into the environment, for example through releases into waterways or water streams. For example:
  - o an overflow of flammable substance during charging of installation that is likely to cause an emergency or a major incident if there is an ignition source that might start a fire;
  - o explosion or fire involving a dangerous substance that leads to vessel failure and the release of substance(s) that could then cause harm.
  - o any incident that might lead to serious danger or have the potential to cause death but it will not necessarily do so. The effect may be immediate or delayed, such as respiratory distress may follow some hours after exposure to a toxic gas.

**"new establishment"** means an establishment which, after the date of entry into force of these Regulations, is erected or declared to be an establishment;

- The new establishments are installations that become new after the promulgation of these Regulations,
  - o establishment that is built after the promulgation of these Regulations;
  - o where an establishment becomes subject to these Regulations due to an increase, decrease or other change in its inventory of dangerous substance;
  - o a lower/medium/high tier establishment that becomes an upper/medium/higher tier establishment or vice versa; or
  - o after that date due to any modification to any of its installations or activities which results in a change in its inventory of dangerous substances.

**"prescribed quantity"**, in relation to a given dangerous substance or a category or categories, means a quantity equal to the value set out in Annexure A;

- The prescribed quantity(ies) are maximum quantities held at one time and are also referred to as threshold levels, and may not be present during normal activities.
- The prescribed quantity merely refers to the total capacity of the installation and not the working capacity. As such, the threshold levels must consider inventory variations which are likely to occur at one time because of factors such as seasonal demand, fluctuations in business activity, deliveries and the inventory in pipe works and equipment's.
- The frequent inventory variations should not affect the basis of maximum quantities of each generic category of dangerous substance on site. The establishment must consider whether these maximum quantities, appropriately aggregated, bring them within scope and, if so, at which category or class or level or tier.
- It may be appropriate for establishment, to relate the maximum quantities of dangerous substances to the total quantity of the installation which they have consent to hold under the local government legislation, or to the total quantity which is manufactured or stored in accordance with a certificate of registration or licence granted under these Regulations.

- The prescribed quantities will be determined with the assistant of aggregation and 2% rule.

**"process safety management system"** means a system contemplated in regulation 11(3)(h);

- The process safety management (PSM) in summary refers to a set of interrelated approaches to managing hazards associated with the process industries and is intended to reduce the frequency and severity of incidents resulting from releases of chemicals and other energy sources. The summary for implementation of PSM is on *Annexure C*.

**"responsible person"** means a person designated, in writing, by a duty holder to be responsible, in a full-time capacity, for the premises on which an establishment is operated;

- A responsible person is a person who is legally appointed by the duty holder and his direct control.
- Their main duty is to ensure safe operation and compliance to these Regulations.
- or in relation to a proposed a person who in the course of a trade, business or other undertaking carried on by that person has commissioned its design and construction;

**"risk assessment"** means the process contemplated in regulation 10;

- is the quantitative risk assessment which is undertaken by an AIA and covers all mandatory requirements stipulated in the MHI Regulations as well as SANS 1461, as amended from time to time.
- The QRA is aided by a specialised software.
- Further to this, the MHI risk assessment is a legal document that gives guidance to local authority regarding on the land usage and emergency response plans.
- The MHI risk assessment must be developed by an accredited and approved inspection body referred to as AIA.

**"the Act"** means the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993);

- The latest version of the Act will apply.

**"transit"** means a time or place in which dangerous substances are transported by rail, road, waterways or airways, which may be between planned points of departure and arrival;

- Is the process of moving, or the movement of dangerous goods from one place to another through different transport modes, e.g., roads, railways, air or water-ways.
- The temporary storage along the moving of dangerous shipment will not be considered as an MHI site such as shunting and truck stops. As such, the owner of truck stops or shunting bays must obtain a permission, conduct a risk assessment according to the transportation laws, and such risk assessment should include safe storage and discharge of the dangerous substance. The department or LG may view such risk assessment when necessary.

**"Safety Data Sheet"** means a document aligned to globally harmonised systems, that provides information on the hazard classification, properties of hazardous chemicals and procedures for the handling of, or working with, hazardous chemicals in a safe manner and how hazardous chemicals affect health and safety in the workplace;

**"safety report"** means a report contemplated in regulation 12;

- It is portfolio that is compiled by the high hazard establishment to demonstrate sufficient evidence that the establishment is:

- built for purpose,
  - is to be operated safely,
  - has all measures necessary and will endeavour to comply to these Regulations.
- As such, the demonstration must include, ways to indicate that the establishment was designed with build in safety, necessary controls are in place and shall be maintained in good working conditions; process safety systems are in place, major hazard incident policy responds the safety indicators, responsible and competent persons are in charge of the operations and they know what they should do, mandatory training schedules are in place, emergency plan is in place and is it going to be tested, reviewed and revised\updated, and etc.

**"SANS 1461"** means *South African National Standard: Major Hazard Installation – Risk Assessments, as amended from time to time;*

- The SANS standard available for carrying out MHI studies by accredited and approved MHI AIAs and the latest version of the standard will be the one applicable for these Regulations.

**"SANS 1514"** means *South African National Standard: Major Hazard Installation: Emergency Response Planning, as amended from time to time;*

- The SANS standard available to provide guidance in development of Emergency plan and supplements NDM Act, Fire Brigade and Emergency Services Act, etc. The latest version of the standard will be the one applicable for these Regulations.

**"United Nations number"** means *the dangerous substance four-figure identification number in the United Nations Transport of Dangerous Goods – Model Regulations, as amended from time to time;*

**"United Nations Trough Test"** means *Part III of the United Nations classification procedures, tests methods and criteria relating to class 2, class 3 and class 4, division 5.1, class 8 and class 9, as amended from time to time;*

**"United Nations Recommendations on the Transport of Dangerous Goods"** means *guidance documents developed by the United Nations to harmonise dangerous goods transport regulations, as amended from time to time, commonly known as the UN Orange Book.*

## Regulation 2: Scope of Application

(1) These Regulations apply to–

- (a) major hazard installations;
- (b) establishments with the prescribed quantity of substances listed in Chapter 1 or 2; and
- (c) major pipeline establishments.

- These Regulations applies to an establishment which is either a low hazard, medium hazard, high hazard, major hazard pipeline, and in some rare cases installations that are classified by Approved Inspection Authorities.
- Once it has been determined that the Regulations apply to an establishment, the maximum envisaged storage capacity is to be declared and classified accordingly.
- All dangerous substances present or likely to be present must be considered in respect of all duties imposed by these Regulations.
- All MHI classified under repealed Major Hazard Installation Regulations, 2001 which do not meet the prescribed quantities criteria, will be re-evaluated as per the Transition

Strategy here below. The said, will then be reclassified or declassified under the new Major Hazard Installation Regulations, 2022

- **Transition Strategy** from MHI Regulations 2001 to MHI Regulations 2022
- Proposed steps for the declassification and not closure:
  1. If an establishment suspect that they may not be an MHI under the MHI Regulations of 2022, but they have an MHI QRA compiled by an AIA that says they were an MHI under the MHI Regulations of 2001, even if they are not registered on the DEL database, then they need to compile and submit an Exit Report.
  2. The Exit Report must be generated by an AIA and must:
    - a. Revisit the inventories of all the materials on site since the materials that made a site an MHI in the past may no longer make them an MHI, but there may be other materials that do now make them an MHI site.
    - b. Check for major offsite impacts, if the facility has no materials (even when aggregated) that are above any of the thresholds, then it is possible that they may no longer be an MHI. However, they may still be capable of major offsite impacts and this must be checked by the AIA.
    - c. The AIA should –
      - i. Perform a consequence analysis of the worst case fires, explosion and toxic gas releases from all the relevant materials on site.
      - ii. The following quantitative impact criteria should be plotted on a map of the area:
        1. Toxics – the 50% lethality level, using probits or the UK HSE SLOD values.
        2. Fires – the 50% lethality or a radiation level of 20 kW/m<sup>2</sup> with 20 s exposure time (See Reference at bottom of page).
        3. Flash fires – the maximum extent of the lower flammable limit (LEL) (See Reference at bottom of page).
        4. Explosions – the 35 kPa (5 PSI) over pressure level (\*\*).
      - iii. The land-use in the area around the facility should be determined and vulnerable receptors marked on a map of the area, i.e. any Level 3 or 4 Sensitivity Developments as per the land use planning clause 4.10 of SANS 1461:2018 which in turn aligns with the United Kingdom: Health Safety Executive (UK HSE), Planning and Development near Hazardous Installations system (PADHI).
      - iv. If any of the above impact criteria extend over any Level 3 or 4 Sensitivity developments, then the facility should remain an MHI Establishment.
      - v. The facility should then be classified as a LHE and should comply with all the requirements of the MHI regulation applicable to a LHE.
      - vi. If none of the above impact criteria extend over any Level 3 or 4 Sensitivity developments, then the facility need no longer be considered an MHI

Establishment and an Exit Report including all the above information, calculations, maps etc. should be compiled for the facility by the AIA.

3. The duty holder of an establishment, which is no longer an MHI, needs to complete the relevant sections of FORM A in the MHI Regulation of 2022.
4. The AIA generated Exit Report together with Completed FORM A need to be submitted to the local government for approval.
5. Thereafter the duty holder must submit the above mentioned documentation together with the local government support, to the Provincial and the for de-registration.

*\*\* Reference - UK HSE Methods of approximation and determination of human vulnerability for offshore major accident hazard assessment.  
[https://www.hse.gov.uk/foi/internalops/hid\\_circs/technical\\_osd/spc\\_tech\\_osd\\_30/spctecosd30.pdf](https://www.hse.gov.uk/foi/internalops/hid_circs/technical_osd/spc_tech_osd_30/spctecosd30.pdf) on 28th July 2023.*

(2) *These Regulations, excluding regulations 11, 12 and 13, apply to low hazard establishments.*

- The low hazard establishment are exempted from:
  - o Developing a major hazard prevention policy (Regulation 11),
  - o Writing a safety report (Regulation 12);
  - o Applying for licence to operate (Regulation 13).

(3) *These Regulations, excluding regulations 12 and 13, apply to medium hazard establishments.*

- The medium hazard establishment are exempted from:
  - developing a safety report (Regulation 12);
  - applying for licence to operate (Regulation 13).

(4) *Regulations 14 and 15 apply to local government.*

- Local Government is defined in Municipal Systems Act 32 of 2000, as well as section 1 of Local Government Transition Act 209 of 1993, and section 84(1)(f) of the Provincial Government Act, 1961 (Act No. 32 of 1961). These requirements will refer to the latest version of the aforementioned legislations, as amended.
- There are different types of local government and as such these Regulations applies to all of the types legislated under the Department of Cooperative House of Tradition Affairs:
  - o metropolitan municipalities;
  - o relevant municipalities (local and district) and
  - o tribal authorities.
- The local government is charged with the responsibility to ensure correct allocation, approval and protection of establishments from encroachments, preparation, review, revision, testing and activation of emergency plans.

(5) *Regulations 21 and 22 apply to an approved inspection authority.*

The Act defines the:

- ***"approved inspection authority"*** as an inspection authority approved by the chief inspector: *Provided that an inspection authority approved by the chief inspector with*



respect to any particular service shall be an approved inspection authority with respect to that service only;

- **"inspection authority"** means any person who with the aid of specialized knowledge or equipment or after such investigations, tests, sampling or analyses as he may consider necessary, and whether for reward or otherwise, renders a service by making special findings, purporting to be objective findings, as to-
    - (a) the health of any person;
    - (b) the safety or risk to health of any work, article, substance, plant or machinery, or of any condition prevalent on or in any premises; or
    - (c) the question of whether any particular standard has been or is being complied with, with respect to any work, article, substance, plant or machinery, or with respect to work or a condition prevalent on or in any premises, or with respect to any other matter, and by issuing a certificate, stating such findings, to the person to whom the service is rendered;
  - In order to successfully execute the risk assessment studies, the Approved Inspection Authorities (AIA), is expected to possess the correct competency, sufficient training, experience, necessary ability, knowledge, enabling tool, or skill to carry out the risk assessment study and reporting the results correctly.
  - The competency includes specified minimum qualification agreed between the Department and the South African National Accreditation Systems.
  - The Department recognises that the process risks cannot be completely eliminated and therefore AIA should do a technical assessment using norms agreed and ensure that there is some proportionality between the risk and the measures taken to control the identified inherent risk. The AIA is also, expected to make a judgement about whether a preventive or mitigation measure is necessary in relation to the major hazard and the risk the measure addresses. The details will be further discussed under Regulation 22.
- (6) *These Regulations do not apply to nuclear installations registered in terms of the Nuclear Energy Act, 1993 (Act No. 131 of 1993).*
- o These Regulations do not apply to:
    - o hazards created by ionising radiation originating from substances and ionising radiation if present on a nuclear establishment;
    - o offshore establishments;
    - o mining establishments;
    - o transport of dangerous substances in transit and outside establishments. There are legislations that covers transport of dangerous substances;
    - o establishments operated under by the military and civil and aviation.
  - an establishment which is carrying out activities for military and civil and aviation purposes but is operated by a contractor will be subject to the Regulations).

### Regulation 3: **Management of establishment**

(1) *In order to ensure that the provisions of the Act and these Regulations in relation to major hazard installation are complied with, the duty holder must designate a responsible person in writing and in full-time capacity in respect of every premises where an establishment is operated.*

- The duty holder must make arrangements to appoint a responsible person (who must be a competent person with required expertise on major hazard installation, workplace health and safety and the environment) to take control of implementation and complying to these Regulations.
- And also, in relation to these Regulations, that the duties are co-ordinated, consistent, transparent, targeted for purpose and are proportionate to the size of the establishment. As such, the possibility of conflicting requirements being placed by other legal requirements is reduced.

(2) *Subject to subregulation (1), the chief inspector may require that any high hazard establishment be operated by a designated responsible person who holds a relevant qualification.*

- In cases, where the duty holder operates a high hazard establishment, it is required that a responsible person holds an appropriate relevant qualification. The qualification to be prescribed by the duty holder in consideration of their establishment and competency required to run such establishment.
- The responsible person to be able to man the establishment and ensure that the major hazards identified are proportionate to the mitigating controls in place, statutory and mandatory maintenance are conducted as prescribed and if outsourced the service provider(s) is/are provided with clear specification for the task at hand.

(3) *A duty holder may appoint, in writing, one or more deputies to assist the responsible person designated in terms of subregulation (1) and must clearly define the duties of such deputies without exempting the responsible person designated in subregulation (1), to properly discharge their duties.*

- A deputy responsible person to be appointed in writing by the duty holder to assist the responsible person in executing their duties or they can undertake the responsible person's duties in their absence.
- The deputies, work under supervision and must report directly to responsible persons. The responsible person has direct control on the deputy but the deputies are not personally liable. As such, the deputies must be able to report any abnormality to the responsible person before taking a decision or implementing a corrective action.

(4) *If, in the opinion of the chief inspector, circumstances require the appointment of one or more deputies as contemplated in subregulation (3), the chief inspector may instruct the duty holder to appoint a specified number of deputies.*

- This regulation gives the sole right to the chief inspector to instruct an establishment to appoint additional deputies that will be given duties to assist the responsible person to attain the aims of these Regulations.
- The additional deputies shall not take the overall responsibility.
- The ground inspectors shall inform the chief inspector of the need for additional deputies in the high tier establishments when a determination is made during the inspection. The chief inspector will then instruct the establishment to appoint the recommended deputies.

(5) *Every duty holder must on a regular basis consult with the neighbouring establishments and counterparts within the potential impact zone—*

- (a) *to discuss any associated major incident associated with the type of establishment;*
- (b) *to share any changes made to the establishment that alters the risk profile; and*
- (c) *to share alert systems in a case of emergency.*

- The duty holder must communicate with their neighbours which might either be other establishments or other businesses which might be in an impact zone or their normal operations are likely to be affected in case of an emergency or major incident.
- The neighbours must be informed of the possible worst-case scenarios and all emergency activation measures in place.

#### Regulation 4: **Notification of establishment**

**4.** (1) *A duty holder must notify the chief inspector, the relevant chief director: provincial operations and the local government on Form A–*

- (a) *of the erection of an establishment, prior to commencement of erection thereof; and*
- (b) *when there is change to an existing establishment, prior to such change.*

- The aim of this provision is for duty holder to notify the chief inspector, the chief director: provincial operations as well as the relevant local government of their aim to build or operate an MHI(s), within reasonable time prior to its existence or any change being made to an existing establishment.
- The duty holder of newly erected establishment must already know during the design stage that their installation is going to be an MHI and must comply with these Regulations from the design stage.
- The duty holder must notify:
  - o when the expected quantity of dangerous substances at its establishment will equal or exceed the thresholds in Annexure A, chapter 1, 2 and 3 of these Regulations.
  - o when there is a modification which can cause an increase, a decrease in the quantities and or process, equipment, etc.
  - o on a prescribed format, on Form A, of these Regulations
- The notification, should first be sent to the relevant local government and relevant chief director: provincial operations be recognised, and then get submitted sent to the chief inspector with all the attachments described in Form A.
- where an establishment changes hazard level due to modifications which result in a change to its inventory of dangerous substances, then a notification is required.

(2) *A duty holder, after the entry into force of these Regulations, must update the notification of an existing establishment and send it to the chief inspector, the relevant chief director: provincial operations and the local government on a prescribed form A, within 24 months.*

- The existing MHIs must within the 24 months (until 31 January 2025), after the promulgation of these Regulations send an updated notification to comply with new requirement and submit all necessary and prescribed documents as indicated in subregulation (3).
- Further to the information provided in Form A, the notification should have all the above indicated documentation attached. However, such documentation may be supplied to the Chief Inspector's office only as the provincial head and local government must endorse Form A, as indication that they are aware and accept the existence of the establishment.

(3) *The notification referred to in subregulation (1) or (2) must be accompanied by–*

- (a) *proof of permission or approval from the relevant local government on land use indicating the exact location of the site;*
- (b) *a letter of designation contemplated in regulation 3(2) and the responsible person's competency profile;*

- (c) *an inventory list and safety data sheets of all the dangerous substances that resulted in the installation being classified as an establishment;*
- (d) *a statement containing the envisaged maximum quantity of all the substances that may be present at the establishment at any one time;*
- (e) *the most recent risk assessment report contemplated in regulation 10;*
- (f) *a site map showing the establishment location and indicating developments around the vicinity of the establishment;*
- (g) *a substance location plan drawn to a scale of not less than 1 to 2 500 which identifies the area on the site where the dangerous substances will be stored, handled, used or processed, showing the location of the major items of plant used in such activities;*
- (h) *information regarding the neighbours or other establishments within the impact zone, including–*
- (i) *sites that are likely to be affected by a major incident and their exact distances from the establishment;*
  - (ii) *known future development that might increase the risk or consequences of a major incident; and*
  - (iii) *other establishments and their exact distances;*
- (j) *proof of the publication of the advertisement contemplated in subregulation (4); and*
- (k) *where applicable, the latest version of the major incident prevention policy.*

#### **4(3)(a)**

- The duty holder to ensure that the land used to operate MHI has been and has a document/certificate issued by the relevant local government in South Africa that indicates that a property or building has been zoned correctly, inspected and deemed safe for use or occupation.
- Further to the above the burden to prove that the establishment has been designed by a professional engineer and has correct build in safety measures and within acceptable standards lies with the duty holder. The duty holder must ensure this requirement is complied with, before the starting to erect or modify the existing establishment and that the Process Flow Diagram (PFDs) and Piping and Instrumentation Diagrams (P&IDs) are passed and approved.
- The PFDs are the foundation control documents for the process design, and can be broken down into a number of P&IDs indicating equipment numbers and brief (a few words) descriptions, material and energy balances, equipment sizes (often rough, or preliminary), materials of construction, flow direction arrows on pipelines, and simplified primary process control loops. Whereas the P&ID must clearly indicate and describe the overall engineering processes, show the interconnection of process equipment and instrumentation to control the system, and provide the primary schematic drawing used for detailed engineering.
- Subregulation 3(a) is supported by Spatial Planning and Land Use Management Act, Rural Development Scheme and section 4(3) of National Building Regulations and Building Standard Act, as amended, says:

***“Any application referred in subregulation 2 shall-***

***(a) contain the name and address of the applicant and, if the applicant is not the owner of the land on which the building in question is to be erected, of the owner of such land;***

***(b) be accompanied by such plans, specifications, documents and information as may be required by or under this Act, and by such particulars as may be required by the local authority in question for the carrying out of the objects and purposes of this Act”***

- The physical address must be the same as the registered company address. If it is different, then the details of lessee agreement with the proof of landownership as well as the duty holder’s registered place of business and, must be attached.
- Thus, it is by implication that the local government permission shall indicate the exact

location of the establishment.

**4(3)(b)**

- The latest appointment letter indicating who the responsible person is, their competency particulars and the establishment they are responsible for.
- Particulars might also be submitted as a resume.

**4(3)(c)**

- The total inventory including the identity of the dangerous substance(s), its generic category and even the ones belonging to a category of dangerous substances as in Annexure A, Chapter 1, Chapter 2 and Chapter 3.
- The total maximum quantity in the installation must be declared in consideration of the aggregation and 2% rule.

**4(3)(d)**

- The total quantities should be the maximum quantities stored at any one time and must be distinguished between actual threshold levels and envisaged quantities.
- In situations where there are frequent inventory fluctuations, or where there are complex inventories with large numbers of dangerous substances, the duty holder must declare and notify the maximum quantities anticipated.

**4(3)(e)**

- Latest risk assessment compiled by AIA.

**4(3)(f)**

- A sitemap indicating the most important hazardous areas, thus, making sure they are easily identifiable.
- It also helps in understanding the MHI structure, making it easier to navigate the site.
- A sitemap may also be filed to provide more information about the specific major hazard location, tank farms, machinery, equipment, piping on the site, and the relationships between them.

**4(3)(g)**

- a hazardous substance location plan must be drawn to a scale of 1:2500 and must indicate places where specific controls are put in place in order to safely operate, control the quantities in storage to maintain the safe operating levels and maximum quantities as well as above specified amounts.

**4(3)(h)**

- Aerial view indicating neighbours and exact distance from the major hazard location (s) as implied on 4(3)(i) here below.

**4(3)(i)**

- Future developments, etc.

**4(3)(j)**

- Latest advertisement as per regulation 4(4) here below.

**4(3)(k)**

- MIPP as per Regulation 11.

(4) *A duty holder who erects an establishment or updates a risk assessment or converts an existing installation into an establishment must—*

- (a) *place an advertisement, in english and the predominant language in the area, in at least one newspaper serving the communities in the vicinity of the establishment; and*
- (b) *post notices within those communities, containing at least the—*
  - (i) *name and location of the establishment;*
  - (ii) *name, title and telephone number of the contact person from whom further information can be obtained;*
  - (iii) *nature of the dangerous substances and the major incidents that may occur; and*
  - (iv) *time and place where a risk assessment report will be explained and may be reviewed*

**4(4)(a)**

- The advertisement must in English and also in a language that is spoken and understood in the area where the establishment is located.
- aims to inform and to remind the members of the public, neighbours and interested parties of the establishments in their area.
- the advertisement is expected to be informative, creating ongoing awareness and influence land developments around the establishment.

**4(4) (b) (i), (ii), (iii)**

- This regulation requires the duty holder to provide information necessary and to consult with neighbouring businesses, stakeholders, affected and interested parties and ensure that there is contact information in case of an enquiry or seeking of clarity.
- A notification for an intent to erect or change an establishment must be circulated in a local newspaper serving the neighbouring businesses in the vicinity, affected and interested parties and members of the public.
- The advertisement is meant to invite public participation and must indicate the date, time and venue where a physical engagement will be held. The advertisement and public participation is not a once-off process; it directly engages the public in decision-making and gives full consideration to the public in decision-making related to emergency planning. Advertisements must be repeated every time when there is a change or updating of regulation 10 and regulation 12 information.
- The advertisement and notices must have information including:
  - o the name of the duty holder;
  - o the address of the establishment;
  - o the hazard establishment classification;

**4(4) b(iv)**

- date, time and place for consultation and sharing of report to be included on the advert and public notices.
- public participation, like the advertisement, it is not a once-off process, nor is it a single event. As such, it must be repeated and should not be limited to the update of a risk assessment, but also when there is a change.

(5) *Any affected or interested party may make representations, in writing, to the relevant local government and the chief inspector, within 60 days after the publication of an advertisement referred to in subregulation (4), if the establishment is not acceptable and poses a risk to that party.*

- The public is given an opportunity to input and make a submission to chief inspector about the reasons why the establishment is not acceptable.

- The period stipulated for submissions is 60 calendar days after publication of the notice in the local newspaper.

#### Regulation 5: **Registration of establishment**

**5.** (1) *After considering the notification referred to in regulation 4(1) or (2), the chief inspector may on payment of the appropriate registration fee specified in Annexure B–*

- (a) *register the premises as a major hazard installation subject to such conditions as the chief inspector deems fit to impose;*
- (b) *enter into the register, particulars pertaining to the name of the major hazard installation, the premises address and other details as the chief inspector deems fit; and*
- (c) *issue to the duty holder a certificate of registration within 60 days; or*
- (d) *refuse to register the major hazard installation.*

- All notifications will be processed upon payment of a prescribed fee as advised by the chief inspector. The prescribed fee will be adjusted accordingly and the chief inspector by gazette.
- If necessary, the chief inspector may impose conditions to the registration depending on the risk and the conditions laid down for the establishment or designated group of establishments.
- The duty holder must specify the means by which the registration certificate must be sent back to them.
- The department shall keep a national register of all MHIs.
- The register, when requested in writing, will be shared with the relevant local government of the MHIs in the area of concern.

(2) *Where the chief inspector refuses to register the major hazard installation in respect of which a notification has been made, the chief inspector must notify the duty holder of the reasons for the refusal.*

- In some extraordinary cases where the chief inspector refuses to register an establishment, the duty holder will be notified in writing as to the reasons why their establishment cannot be registered.
- The establishment will be given time to rectify the written concerns/findings, failing which the registration will be forfeited.
- If the reasons are due to submission of inadequate risk assessment report, the AIA concerned will be reported to the accreditation body and offenses and penalties may be imposed in terms of regulation 24.

(3) *The duty holder must conspicuously display the latest registration certificate received in terms of subregulation (1)(c).*

- The status of any establishment must be displayed in a manner that it is easily noticed and must be:
  - o readily visible or observable to any employees, or visitor
  - o visible to public members that are at a distance of at least 0.5 meters away from the entrance of the establishment.

#### Regulation 6: **Duration of registration and renewal**

**6.** (1) *Subject to regulation 5(1), the registration is valid for a period of five years or for such other period as the chief inspector may determine in a particular case, unless the registration is earlier suspended or revoked in accordance with the Regulations.*

- The registration is valid for 5 years provided there are no changes.
- If any fact if the above is affected, the registration lapses.
- After 5 years the registration is due for renewal if there were no changes effected on the establishment.

(2) *The chief inspector shall renew the registration upon the updating of a risk assessment and documents as may be required and on payment of the appropriate renewal fee specified.*

- the duty holder has an obligation to renew the expired registration and pay an applicable fee, at the time of the renewal.
- there will be no prescribed renewal notice from the department.
- the MHIs must keep track and renew the certificate and attach supported documents including:
  - o the current/expired certificate of registration;
  - o updated risk assessment report;
  - o affirmation of responsible person or a new appointment;
  - o MIPP, emergency plan and or updates on safety report, when applicable.
- the renewal must be sent before the expiry. Thereafter, the duty holder should give valid reasons why the renewal is submitted outside of prescribed time frames and then regulation 23 will apply.

#### **Regulation 7: Alteration to particulars of registered establishment**

7. (1) *The duty holder must, where there is an alteration in any of the particulars of a major hazard installation, furnish the alterations to the chief inspector, relevant chief director: provincial operations and relevant local government not later than 14 days after such alteration occurs.*

- The duty holder who alters details must immediately and not later than 14 days, notify the chief inspector, relevant chief director: provincial operations and the relevant local government of such alterations.
- The details include amendments that are significant and may or may not affect the risk profile of the establishment, such as ownership, leadership (16.1's and or 16.2's), the name and position of the responsible person, or addition of dangerous substances that are new on the establishment or change in the nature of form of a substance.
- For example, if the establishment normally received a supply of gaseous dangerous substance and now receives supply in powder because it's much easier and cost effective to produce their own gaseous product.
- The following to be reported under regulation 4(2) notifications:
  - o If the category of establishment remains the same but there are significant adjustments of prevention, control or mitigation measures or decrease in quantities of dangerous substances which reduces the impact zone.
  - o In situations where there are technical improvements and such improvements increase maximum quantities to the higher/lower category.

#### **Regulation 8: Revocation or suspension of registration**

8. (1) *The inspector may issue a direction or notice instructing the duty holder immediately to comply with the requirements specified in the direction or notice, if the premises of the registered major hazard installation become unfit for occupation or use because of a-*



- (a) *failure by the duty holder to ensure that work is carried out safely; or*
  - (b) *change effected on the establishment without notifying the chief inspector, the chief director: provincial operations and the local government; or*
  - (c) *new hazardous fact or circumstance that was not present when the establishment was registered.*
- The establishment will be subjected to monitoring at any time by the inspectors or local government or in collaboration with the department and local government.
  - If finding(s) is/are made during the inspection or a safety non-conformance is reported and confirmed by the inspector and a notice is issued, and the duty holder does not rectify the findings, or the establishment is not safe for occupation the inspector may advise the chief inspector to revoke or suspend the registration.
- (2) *The chief inspector may revoke the registration if–*
- (a) *the duty holder fails to comply with the issued direction or notice;*
  - (b) *the chief inspector has established that the duty holder has contravened a condition of registration; or*
  - (c) *the inspector has proven that the duty holder has ceased occupation or use of the premises as an establishment.*
- Conditions for revocation may include:
    - o failure to comply with issued notice;
    - o condition of registration is contravened;
    - o the establishment has closed shop without closure application.
- (3) *An inspector must, before advising the chief inspector to revoke or suspend the registration of an establishment as contemplated in sub regulations (2) and (3)–*
- (a) *issue to the duty holder a direction or notice, in writing, of the intention to revoke or suspend the registration; and*
  - (b) *give the duty holder a reasonable opportunity to submit reasons as to why the registration should not be revoked or suspended.*
- Once the establishment is found not to be complying, the first step will be to give an opportunity for the establishment to rectify the non-conformance. If the situation has not been rectified, then the chief inspector will suspend or revoke the registration.
  - This regulation will be read with section 21 (1), (a), (b), (c) and section 30 (1)(a), (b), (c) of the Act.
- (4) *The revocation or suspension of registration does not take effect–*
- (a) *until the expiration of 21 days after the date on which notice of the chief inspector's intention to revoke or suspend the registration was given to the duty holder as contemplated; or*
  - (b) *where an appeal against the decision of the chief inspector is made to the Labour Court in terms of section 35 of the Act, until the appeal has been determined or withdrawn.*
- The suspension or revocation of registration will not take effect 21 days after the date of issue to allow an appeal to be submitted if the establishment is not satisfied with the decision of the inspector.
  - The establishment may put an action plan in place and send it to the chief inspector for approval, and the decision to suspend or revoke may be put aside but not be reversed.
  - If there is no plan in place the establishment can then appeal against the decision of the chief inspector in terms of section 35 (3) of the Act.
  - The suspension or revocation of registration may at any time be cancelled by the chief

inspector in writing if arrangements to the satisfaction of the inspector have been made to remove the reason for non-conformance that had originally given rise to the imposition of the suspension or revocation.

(5) *An inspector may advise the chief inspector at any time, and for a valid reason, to shorten the period for which the registration is suspended.*

- The establishment has the responsibility to rectify the non-conformances and factually prove to the inspector that the reason for non-conformance has been removed and then the suspension may be cancelled.

#### Regulation 9: **Sharing of information with adjacent establishments**

- Naturally, the duty holder must also share adequate, acceptable and necessary information regarding the establishment with neighbouring establishments and other businesses that do not fall under these Regulations, that could initiate or aggravate a major incident, e.g. a welding workshop, can cause fire if its' done close by, or licensed explosive sites.

**9.** *The chief inspector may designate one or more registered major hazard installations in a certain location as a group of establishments, and require such establishments to share information, including the—*

- (a) *basic particulars of the establishment;*
- (b) *responsible person for that establishment;*
- (c) *description of major incidents associated with that type of establishment, and consequences of such incidents; and*
- (d) *information on how affected neighbours will be alerted in the event of a major incident.*

- The chief inspector may group establishments in an area/complex in which the establishments are close and are likely to be affected in a case of a major incident at any of the establishments.

- The designated group should communicate the necessary information including:
  - o their emergency plans and test programs, as well as how they will alert one another of the incidents
  - o The surrounding environment which could aggravate the consequences of a major incident
  - o Special Areas of Conservation or Protected Areas.

#### Regulation 10: **Risk assessment**

**10.** (1) *A duty holder must, after consultation with the relevant health and safety representative or health and safety committee, ensure that an approved inspection authority carries out a risk assessment in accordance with SANS 1461 at intervals not exceeding five years or when there is a change in the establishment.*

- The duty holder must consult with the health and safety representatives and carry out a QRA as per SANS 1461, assisted by an AIA in the subject matter.

#### **H& S Consultation**

- Will be possible in the event where there are employees on site and for new establishment this requirement may be irrelevant.
- Proof of such consultations must be available for inspection or when requested

#### **Quantitative Risk Assessment (QRA)**

- A quantitative risk assessment (QRA) must be able to clearly identify all major incident hazards and present a representative set of reasonably foreseeable major accident scenarios.
- The QRA must be conducted by a competent Approved Inspection Authority (AIA) and the AIA must be able to produce the latest accreditation Schedule, Certificate as well as approval which must be valid for the date upon which a QRA is conducted.
- Reference must be made to hazard identification and risk assessment techniques used. The techniques are stipulated in SANS 1461 standard.
- The overall risk profile of an area/complex must be submitted with the QRA so that the chief inspector may be able to carry out their responsibilities in line with Regulation 9.
- The report should at least cover the agreed topics stated in the Technical Requirements (TR) Guidelines, as amended and administered by South African Accreditation System (SANAS).

#### **Updating of QRA**

- Five years reads from the commencement date of the current MHI QRA report.
- When there is foreseeable or unforeseeable change as stated on regulation 1: definition of change a QRA must be carried out and a report be submitted as stipulated. The new QRA will cancel out the current QRA and validity period will be counted from the commencement date.

#### **Business Complexes**

- The establishment is clearly explained, as such every business park/complex with multiple establishments will have to carry out independent QRA. As good practise the business park/complex owner must carry out a cumulative risk assessment to avoid and domino effects.

(2) *Every duty holder must–*

- (a) *inform the relevant health and safety representative or health and safety committee, in writing, of the arrangements made to carry out a risk assessment contemplated in subregulation (1); and*
- (b) *ensure that the results of the risk assessment are made available to the relevant health and safety representative or committee, who may comment thereon.*

#### **Consultation**

- Will be possible in the event where there are employees on site and for new establishment this requirement may be irrelevant.
- Proof of such consultations must be available for inspection or when requested.
- The consultation with health and safety representative(s) or committee must be writing and the establishment must be able to prove that it took place.
- The results of the QRA must be discussed with the health and safety representative(s) or Committee and such proof should be readily available for audits\inspections.
- At any point the inspector might verify the appointment letters of the consulted health and safety representative(s) or committee.

(3) *Where a risk assessment has been reviewed or revised, without a change to the establishment, the duty holder must submit an updated copy of the risk assessment report to the chief inspector, the relevant chief director: provincial operations and the relevant local government within 60 days.*

- QRA must be reviewed or revised by AIA.
  - **A Revision** means a new full re-assessment of the whole establishment is conducted, automatically changing the date of the final report, so the five-year cycle will recommence with date of the of issue of this QRA report.
  - **A Review** means a re-assessment of targeted areas with the intention of instituting an improvement if necessary. On this one, the date of issue of expiry of the current QRA report does not alter the five-year revision / reassessment cycle. As such, the expiry is the date of the prior QRA report.
  - After each process the establishment must submit an updated QRA within 60 days of issue of that report, to the Chief Inspector, Provincial and relevant local government.
  - The idea is for the establishment to firstly submit with the local government and get a proof that the contents of the QRA report are accepted and then submit to the chief director: provincial operations obtain a proof, to that regard. Once the proofs have been obtained, the establishment can then submit the package to the Chief Inspector, who will in turn respond in terms of Regulation 5&6.
- (4) *Every duty holder must ensure that the most recent risk assessment report is available on site for inspection by an inspector or a local government.*
- The duty holder to ensure that the latest version of QRA report is available on and can be inspected by the inspector or relevant local government.
  - In a case where the duty holder of a pipeline cannot practically have the latest QRA report at the point where an audit\inspection is conducted they must arrange with the duty holder to submit a latest certificate of registration within an agreed time period. The inspector will then consult with MHI sub directorate or arrange to view a report at their respective provincial office.
- (5) *Subregulation (1) shall not apply in the case of rolling stock in transit: Provided that the operator of a railway shall ensure—*
- (a) *that a risk assessment applicable to rolling stock in transit is carried out and made available for inspection at the request of an inspector or a local government or both that inspector and that local government, as the case may be; and*
  - (b) *that, in the interest of the health and safety of the public, the necessary precautions are taken.*
- The rolling stock in transit are exempt from conducting a regulation 5(1) QRA study and as such the required risk assessment might be a section 8 and or a risk assessment regulated under Department of Transport or a Railway Safety Regulator and provided that:
    - o The QRA is conducted at the point of departure and arrival.
    - o A copy of a transport risk assessment which includes safe discharge and temporary storages is available for purposes by audits/ inspections by an inspector or local government. This provision is only applicable at a point of arrival and a point of departure or when there are joint operations between the

Department and Regulators mandated to stop rolling stock in transits. The cited transport risk assessment might be of, tankers, railway cargo, etc.

- The duty holder must make necessary arrangements to clearly alert the public of dangers attached to the consignments being transported. As such, rolling stock in transit must have applicable signage's, use designated approved routes and be able to contact emergency and spill tech services within a reasonable time frames, and where possible prevent escalation of an incident to the vulnerable.
- (5) *A duty holder shall ensure that the risk assessments contemplated in sub regulations (1) and (3) be made available for scrutiny by any affected or interested person that may be affected by the activities of the establishment, at a time and place and in a manner agreed upon between the parties*
- The duty holder must be transparent and consult in good faith with the affected or interested persons.
  - Being made available for scrutiny means that the duty holder must present the contents of the QRA that have effects on the interested and affected parties. As such the interested and affected parties can enquire but not influence or change the content of the QRA to suit their interests.
  - The duty holder is not obligated to give a full copy of the QRA but if they agree in good faith with the affected or interested party, they are at liberty to give a copy of the QRA.
  - As such, the duty holder plus the affected and interested parties should agree on the place and time and the manner in which they will consult to share the QRA contents.
  - In a case of disputes of the content of the QRA, the duty holder, the affected and or the interested parties can approach the Chief Inspector as well as the South African Accreditation Systems in terms of Regulations 21(3).

#### Regulation 11: **Major incident prevention policy**

**11.** (1) *The duty holder must prepare and retain a written major incident prevention policy, as contemplated in Annexure C, on the–*

- (a) *construction and building of the establishment;*
  - (b) *change in the establishment; or*
  - (c) *safe operation of the establishment.*
- This regulation applies to medium and high hazard establishments.
  - The purpose is to provide a statement of the senior management's commitment to achieving high standards of major hazard control in order to prevent incidents. It must specifically address major incident hazards and relates to protection of employees, the public and the environment.
  - MIPP must prescribe or set down what is to be achieved, with an indication of how this is to be done but does not need to go into great detail. The detail should be contained in other documentation relating to the establishment, e.g., plant standard operating procedures, training records and job descriptions, etc.
  - The major incident prevention policy (MIPP) must be prepared in writing and is a living document that needs to be updated to align with the project stage. That is construction stage, changes such as modifications as well as normal operations.

- The MIPP would be similar to H&S policies or environmental policies that are as typically displayed in the reception area.
- The MIPP must be comparable in its scope and structure to the major accident hazards and lay down the framework for achieving adequate identification, prevention/control and mitigation of major accident hazards. It should describe management systems in place for establishing an appropriate health and safety culture, backed by procedures and practices which take account of human factors.
- For high hazard establishments the MIPP must be included as a separate document in the safety report, and should be supported by details of how it is to be implemented in practice.
  - o The MIPP must be voluntarily available for contractors, visitors, interested and affected parties as well as employees. It may be requested before a visit, and it should be kept available for audit/inspection by inspectors or relevant local government.
  - o For a multi-site duty holder, the MIPP might apply to several establishments, but the more
    - o detailed safety management system documents should be specific for a particular
    - o establishment.

(2) *Every duty holder must, within 36 months after the entry into force of these Regulations, establish and have in record a major incident prevention policy.*

- This Regulation will be applicable 36 months after the promulgation of these Regulations and after that all establishments must comply to this requirement.
- MIPP must be prepared and established (adopted and implemented) in writing by the duty holder of a –
  - o new establishment, within a reasonable period of time prior to –
    - construction or operation of the establishment; or
    - modifications leading to a change in the inventory of dangerous substances kept at the establishment;
  - o existing establishment, not later than 36 months after the date of promulgation of these regulations;
  - o modified establishment that meets the criteria to develop MIPP (i.e. change from low to medium or high level establishment) before the change in hazard level.

(3) *The major incident prevention policy must provide for a high level of protection for employees and the public and must include at least–*

- (a) *the aims and objectives of the policy;*
- (b) *the roles and responsibilities of the establishment's management;*
- (c) *process safety performance indicators;*
- (d) *commitments towards the maintenance and continual improvement of the policy;*
- (e) *the aims and objectives of the–*
  - (i) *emergency plan;*
  - (ii) *evacuation plan regarding the–*
    - (aa) *speedy evacuation of persons;*
    - (bb) *roll-call after evacuation; and*
    - (cc) *plant shut down;*
- (f) *reasons for revision;*
- (g) *mandatory agreements; and*
- (h) *the process safety management system with principles specified in Annexure D.*

- The duty holder must implement its major accident prevention policy by a process safety Management system (PSM). In other, cases, the PSM may be integrated within an overall management system which addresses other matters such as quality, therefore the approach to developing the MIPP and the PSM may vary greatly reflecting the overall management philosophy, system and culture of the establishment.

(4) *A duty holder must review the major incident prevention policy of an establishment every five years or when there is a change in the establishment which renders the existing policy inadequate: Provided that an updated copy is available for inspection by an inspector and the local government.*

- The MIPP must be reviewed MIPP, in the event of –
  - o a significant increase or decrease in the quantity of dangerous substances
  - o a significant change in –
    - i. the nature or physical form of the dangerous substances
    - ii. the processes in which could have significant consequences in terms of major accident hazards;
  - o in any event no later than five years after the date on which the policy was last reviewed

#### Regulation 12: **Safety report**

**12.(1)** *The duty holder of a high hazard establishment must prepare a comprehensive, site-specific, safety report, which must be–*

*(a) developed during the design phase and be continually updated until the start date of operations; and  
(b) maintained for the duration of the life of the establishment.*

- This regulation applies to all duty holders of high hazard establishments who must prepare a safety report in writing, see minimum contents as presented in *Annexure D*.
- Its purpose is to show and demonstrate that the duty holder has put in place arrangements for the control of major Incidents and to protect and reduce consequences to people and the environment, should there be a major incident.
- To achieve its objectives, the Safety Report can be made out of a series of individual studies/documents whose main findings are incorporated as supporting evidence into one safety report.
- The safety report must be specific and relevant to the establishment and should be supported by details of how the MIPP and QRA recommendations are to be implemented in practice.

(2) *The safety report must demonstrate a suitable and sufficiently documented plan to ensure–  
(a) that reliable built-in safety has been incorporated into the–*

- (i) *design;*
- (ii) *construction;*
- (iii) *operation; and*
- (iv) *maintenance of any equipment and infrastructure used in the establishment; and*
- (b) *the application of–*
  - (i) *the major incident prevention policy;*
  - (ii) *the process safety management system;*
  - (iii) *the organisational and necessary measures to prevent major incidents and to limit their consequences;*
  - (iv) *the on-site emergency plan.*

- The report should provide a clear link between the various major incident scenarios identified in the QRA and the measures which are in place to defend against them in all phases of the project, e.g. during design, construction, operation and maintenance.

- The safety report should show how the necessary measures will prevent foreseeable failures which could lead to major accidents, and to limit the consequences of any that do occur.
- There should also be a clear link to the PSM.
- For example, during the design phase of a project the Safety Report could contain evidence that inherent safety was considered that materials interactions were considered, that suitable standard and codes were applied, as well as items listed in *Annexure D*, etc., and this could for example, all be included in a hazard study/Safety Studies relevant to the design stage.
- During construction there may be evidence of quality control on materials of construction, verification of as built installation against design etc. For the operation and maintenance phases refer to Annexure D.
- If sufficient information is not available in the safety report the department may request further information deemed necessary by the chief inspector.

(3) *The safety report must also contain information regarding an off-site emergency plan to take the necessary measures in the event of a major incident.*

- This Regulation must be read with regulation 15.
- The safety report could include evidence that the necessary information was given to the local authorities, e.g., details of major incident scenarios, on site emergency plan links to the offsite external emergency services.
- There is no specific requirement to include the off-site plans in the safety report.

(4) *The duty holder of a proposed high hazard establishment must submit to the chief inspector*  
(a) *preliminary safety report at the design stage of that establishment; and*  
(b) *final safety report within a reasonable time before the establishment starts operations.*

- The application of this regulation will vary, depending on whether the establishment is constructed after promulgation of these Regulations or there is an increase in quantity of dangerous substance already present where the establishment moves from low or medium to high hazard establishment.
- However, in both cases the establishment will be treated as a new establishment since the installation, thus the modifications will also need to be factored in the designed and such the risk profile will be elevated and the establishment will be deemed a new establishment.
- The design and pre-construction or pre-modification submission will be termed preliminary safety report and they should focus on conceptual design. It should cover issues such as: selection of process options (taking into account principles of inherent safety and best practicable environmental options); dangerous substances, pressures, temperatures and inventories; locational information such as positioning of vessels, occupied buildings, etc., as well as the descriptions of the surrounding environment.
- The duty holder must also provide an action plan setting out some timelines for the stages of the project such as conceptual design, finalisation of design, construction, procurement, commissioning and start-up.



- The Start-up is when the dangerous goods are first introduced in the installation, it will include commissioning phase. The pre-operation part of the safety report should include those elements which were not available at the pre-construction stage. This is likely to include operational systems of prevention, control and mitigation, together with management systems.
- The Final safety report should address any findings of the previous versions of the safety report, and provide evidence that the installation is built to a design informed by relevant Standards/Codes of Practice, layouts and materials of construction were defined, control and instrumentation systems and operating procedures were finalised, etc.

#### **Submissions**

- The Safety Report should be submitted before the start of operation of the establishment or before any change at the establishment, that affects the risk profile of the establishment.
- *New establishments*
  - o The preliminary safety report should be submitted concurrent with notification under regulation 4, during the design phase of the project (not earlier than conceptual engineering and not later than detailed design) and within a reasonable period of time prior to the start of construction of the establishment.
- *Existing establishments*
  - o The final safety report prepared for the completed establishment is the pre-operation report and the information examines if the installation is built to a standard design, layouts and materials of construction are defined, control and instrumentation systems and operating procedures are finalised, etc. the final safety report must demonstrate how the design meets relevant standards.
- *Change of establishments*
  - o The pre-modification of establishments brought into high hazard establishment by modifications leading to a change in quantity of dangerous substance – an ‘operator-initiated’ change – must prepare their safety report in advance of the change to their inventory. If the modification is a ‘turnkey’ project built to a standard design, operators should ensure that the pre-modification safety report shows how the final design meets relevant standards.
- The safety report should not be treated as a once off process, it is a continuous and live document. Information submitted in the Safety Report before operation should be built upon and the earlier pre-construction safety report should be updated to describe how any previously outstanding issues have been resolved. Thus, the information that was submitted before construction does not need to be resubmitted before operation if it is still complete in terms of scope and level of detail. Information would need to be resubmitted in the event of changes such as significant modifications during construction.

#### **NB!**

- **The duty holder must not begin any construction work** until a submission of their preliminary safety report is submitted and responded to by communication means agreed upon. That includes any preparatory work or site preparation, storage, control rooms or offices, internal means of access etc. which would have a significant impact on safety.
- The duty holder must similarly **not start operation** until they have received from the department the outcomes of the submission of the Final safety report, (e.g. License to Operate issued).

(4) *The duty holder must send a safety report to the chief inspector within 36 months after the entry*

*into force of these Regulations.*

The existing establishments that will become high hazard establishment are given a 36 months' transition period beginning on the date on which these Regulations come into effect.

- (5) *Every duty holder must review the safety report–*
- (a) *every five years;*
  - (b) *prior to any change to the establishment; or*
  - (c) *whenever there is a change in the process safety management system which could have significant repercussions with respect to the prevention of major incidents or the limitation of the consequences of major incidents.*

*Provided that the updated copy of the safety report, revised under this subregulation, is sent to the chief inspector within 60 days.*

- The duty holder must develop a plan for review and revision of the safety report as required in regulation 12 (5) (a), (b), (c) as follows:
  - (a) full five yearly review:
  - (b) pre-change review, as stated on the definition of a change, and
  - (c) PSM review
- The PSM review must justify new facts or by technological knowledge about safety matters, including knowledge arising from analysis of accidents or near misses; where a review is justified by developments in knowledge concerning the assessment of hazards. The review will be in advance of the five-year revision date.
- The revised safety report, or its revised parts, must then be submitted to the chief inspector within a reasonable time agreed upon. The duty holder must immediately inform the chief inspector of this intent before taking it and then the five-year review timetable will then be reset.
- The review must be comprehensive, and should include material change, such as the introduction of any new major accident scenarios which have arisen from emerging hazards which might have previously not been of concern. The scale and complexity of the activities may make it appropriate for the duty holder to provide a rolling submission of documents which, taken together, would contain all the required information.
- The reviewed updates must be sent to the chief inspector 60 days after the expiry of the previous safety report, or before any changes or modification are made to an establishment.
- The review must not only detail the changes that have occurred, but also assess the significance of the changes in terms of the identification, prevention, control and mitigation of major incidents.
- Examples include: changes in the land use of areas surrounding the establishment, including changes in population; or changes in the conservation designations of the surrounding area. Particular attention should be given to the cumulative effects of any minor changes which have taken place over the period.
- When the safety report is peer reviewed, the latest current reviewed/revised report becomes the applicable valid report.

**Planning and preparation to peer review Safety Reports:**

- The Department will set up an assessment task team and recommend members to assess the safety report. The team will be named MHI R 12 and will report to MHI advisory committee in terms of regulation 20.

- The HHE duty holder might be requested to attend assessments meetings when necessary.
- If there are matters which require attention the Department will confirm the matters in writing, including the nature of, and timescales for, any remedial action and send the matters to the duty holder on a communication platform agreed upon.

### Regulation 13: **Licence to operate**

**13.** (1) *A duty holder who operates a high hazard establishment must apply for a licence to operate such an establishment.*

- Duty holder of High hazard Establishments requires the licence to operate (LTO).
- The new establishments must apply before the commencement of operations.
- There is no prescribed form of application, and the process can run concurrently with the approval of safety report.
- *To obtain a licence to operate a duty holder of HHE must submit a safety report which sets out how the facility will be operated safely.*
- *There are 4 stages to apply for a licence:*
  1. *notification in terms of regulation 4*
  2. *registration in terms of regulation 5 and payment of a prescribed fee*
  3. *submission and approval of safety report in terms of regulation 12*
  4. *written application for LTO.*

(2) *An existing duty holder must apply for a licence not later than 36 months after the entry into force of these Regulations.*

- Existing high hazard establishments are given 36 months' transition period beginning on the date on which these Regulations come into effect.

(3) The chief inspector, upon receipt of an application in terms of subregulations (1) and (2), with a written proof of occupancy from the local government, may–

- (a) issue a licence;
- (b) decide not to issue a licence and give reasons for the decision; or
- (c) issue a licence subject to any condition that the chief inspector deems reasonable and necessary.

- *The chief inspector will then issue a LTO once the licensing requirements are met or may give reasons why the licence is not approved or set conditions to the issued licence.*

- *The licence is valid for as long as there is no change in the establishment.*

- (4) A licence issued under subregulation (3)–
  - (a) may not be transferred to another establishment; and
  - (b) lapses after 12 months if the new installation has not started operations or the establishment has not been operated within 12 months after the issue of the licence.
- (5) The chief inspector may–
  - (a) suspend or withdraw a licence if the conditions subject to which the licence was issued are not complied with; or
  - (b) alter a condition in an existing licence after consultation with the duty holder and the relevant health and safety representative or the relevant health and safety committee.

**Regulation 14: General duties of local government**

**14.** (1) *Without derogating from the provisions of the National Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977), and the Spatial Planning and Land Use Management Act, 2013 (Act No. 16 of 2013), a local government must not permit the erection of a new establishment or the expansion of an establishment at a separation distance that poses an unacceptable risk in terms of the risk assessment contemplated in regulation 10.*

- All establishments must be approved by relevant local government in writing as stipulated by spatial planning and land use laws.
- The National Building Regulations and Building Standards Act, as amended provides for the promotion of uniformity in the law relating to the erection of buildings in the 'areas of jurisdiction of local government; for the prescribing of building standards; and for matters connected therewith.
- Section 4 of NBR&BRA, on Approval
 

*"4. (1) No person shall without the prior approval in writing of the local authority in question, erect any building in respect of which plans and specifications are to be drawn and submitted in terms of this Act*

*(2) Any application for approval referred to in subsection (1) shall be in writing on a form made available for that purpose by the local authority in question,*

*(3) Any application referred to in subsection (2) shall"*

  - (a) contain the name and address of the applicant and, if the applicant is not the owner of the land on, which the building in question is to be erected the of the owner of such land;*
  - (b) be accompanied by such -plans, specifications, documents and information as may be required by or under this Act and by such Particulars as may be. required by the local authority in question for the carrying out of the objects and purposes of this Act"*
- The Spatial Planning and Land Use Management Act 16 of 2013 intends: to provide a framework for spatial planning and land use management in the Republic; to specify the relationship between the spatial planning and the land use management system and other kinds of planning; to provide for the inclusive, developmental, equitable and efficient spatial planning at the different spheres of government; to provide a framework for the monitoring, coordination and review of the spatial planning and land use management system; to provide a framework for policies, principles, norms and standards for spatial development planning and land use management; to address past spatial and regulatory imbalances; to promote greater consistency and uniformity in the application procedures and decision-making by authorities responsible for land use decisions and development applications; to provide for the establishment, functions and operations of Municipal Planning Tribunals; to provide for the facilitation and enforcement of land use and development measures; and to provide for matters connected therewith.
- (2) *The local government must–*
  - (a) *permit a new development only where there is a separation distance which will not pose an unacceptable risk in terms of the risk assessment contemplated in regulation 10; and*
  - (b) *prohibit any new property development adjacent to an establishment that will result in that new development being declared an establishment.*
- The local government as well as the duty holder are responsible to protect the separation distance stipulated in the risk assessment report and ensure there is no encroachment.
- The local government must also not unnecessarily approve new establishment that will increase the risk profile of already existing establishments.

(3) *The relevant local government must give consent for the on-site emergency plan and participate in the annual emergency test drill as contemplated in regulation 15(4)(e).*

- The fire services as a competent body in line with Fire Brigade Services Act. No. 99 of 1987, agree with the contents (in writing) of the onsite emergency plan. As such, Fire services must be able to advise and improve the plan if the emergency measures and equipment in place are adequate and address the dangers in the event of a major accident.
- The onsite plan must be mocked once a year in collaboration with the duty holder and records should be kept for inspection or when requested for auditing by relevant local municipality.

(4) *Where a relevant local government does not have the facilities available to control a major incident or to comply with the requirements of these Regulations, that local government must make prior arrangements with a neighbouring local government, the relevant provincial government or the duty holder for assistance.*

- In the case where a jurisdictional relevant local government does not have facilities in place, including competent first responders, they must request assistance and enter into service level agreements with a neighbouring local government, district local government or provincial government or with the duty holder.

(5) *The relevant local government is responsible for the off-site emergency plan to be followed outside the premises of the establishment.*

- The jurisdictional relevant local government is required to prepare a site-specific offsite emergency plan in consultation with the duty holder and dovetail it to the internal emergency plan to ensure the two plans fit together.
- The offsite emergency plan is meant to safeguard vulnerable and public in cases where an incident escalates beyond the boundaries of the MHI site.
- The offsite emergency plan must be site-specific and address the potential hazards related to the that specific MHI.
- This requirement is embraced in the, Disaster Management Act, 2002 (Act No. 57 of 2002), as amended in terms of ssection 52 and 53.
- The Disaster Management Act (DMA), requires each municipal organ of state to prepare a Disaster Management (DM) plan and submit it to the National Disaster Management Centre (NDMC) setting out the following amongst others –
  - o The way in which the concept and principles of DM are to be applied in its functional area including climate change related risks;
  - o Its roles & responsibilities regarding emergency response & post – disaster recovery and rehabilitation;
  - o Its capacity to fulfil its role and responsibilities;
  - o Contingency strategies & emergency procedures in the event of a disaster, including measures to finance these strategies; and
  - o The DM plan of an organ of state must form an integral part of its planning and must give explicit priority to the core principles of disaster prevention and mitigation.
- The offsite plan must be shared with the relevant establishments.

- (6) *The relevant local government must prepare an off-site emergency plan in accordance with SANS 1514 and in consultation with the duty holder and interested or affected persons, within 24 months after the entry into force of these Regulations, and thereafter immediately for new establishments, and review the plan when there are significant changes to the hazard profile of the area.*
- The emergency plan must comply to SANS 1514 as well as any other law or standard or rule or by laws that might be advised by the relevant local government.
  - The offsite emergency plan must dovetail with the onsite emergency plan, so that first responders will be able to execute their duties with ease and high level of professionalism.
  - In terms of the Fire Brigade Services Act 99 of 1987 (FBA), as amended, any local government may establish and maintain a fire-fighting service in its jurisdiction, whose establishment will be managed by a Chief Fire Officer. In addition, a controlling authority may establish a fire brigade reserve force for its area of jurisdiction.
- (7) *The duty holder must, on written request, and within the time limits imposed by the local government, furnish the local government with the necessary information needed to prepare the off-site emergency plan.*
- The duty holder must cooperate with the relevant local government and provide the necessary and requested information as directed.
  - The necessary information is that which allows the relevant local government; the emergency and fire services to be able to draw up the offsite plan and take stock of their skills and resources available and what action or assistance they need to mitigate the consequences of the major incident.
  - Other authorities will include the SAPS, Traffic Control, Health, Environment Agencies-Spill Tech Service Providers, etc.
  - There should also be service level arrangements in writing in cases where assistance is required from outside emergency responders.

**Regulation 15: Emergency plan**

15. (1) *A duty holder must, immediately after submission of the notification contemplated in regulation 4, in consultation with the relevant health and safety representatives or health and safety committee, in writing, appoint an emergency coordinating team consisting of at least–*

- (a) *the responsible person contemplated in regulation 3(2); or*
  - (b) *a responsible person's deputy contemplated in regulation 3(3); and*
  - (c) *a representative from the health and safety committee.*
- The duty holder must formulate an emergency coordinating team consisting of regulation 15(1) members and as advised by the jurisdictional Fire Chiefs, and/or by-laws.
  - The duty holder must consult in good faith with H&S committee and can extend consultation to the medical team on the establishment or for the area where the establishment is situated.
  - The onsite emergency plan must detail the roles of the emergency coordinating team and those who work at the establishment and what roles they play in the event of an emergency or a major incident.
  - The medical or Health team will advise on the satisfactory arrangements to handle the healthcare aspects to response to a major accident. This will include ensuring that arrangements are in place with hospitals, ambulance services and other organisations

responsible for managing acute and community care for the treatment of any casualties that may arise. As well as determining, where appropriate, the most suitable holding locations for up-to-date stocks of antidotes or other medication.

(2) *The duty holder must develop and maintain an on-site emergency plan before the establishment commences operations in consultation with the emergency coordinating team and in accordance with SANS 1514.*

- The duty holder must prepare adequate onsite emergency plans for dealing with consequences within the establishment of possible emergencies and major.
- The emergency plan must meet the requirements stated in SANS 1514, as amended.
- The plans should be in writing and cover the full range of possible major accidents, including the response to reasonably foreseeable low-probability, high-consequence events, such as catastrophic vessel failure, multiple tank fires following an explosion or a deflagration.
- The remedial measures may include, short term and long term, for example, restricting access to contaminated areas; neutralising, removing and disposing of chemical contaminants; and sheltering the affected, removing plants or contaminated soil or parts of the built environment.
- Those establishments that were existing before the promulgations of these Regulations must align and update their onsite emergency plan to comply with SANS 1451.

(3) *The on-site emergency plan for an existing establishment must be aligned and updated to SANS 1514 within 12 months after the entry into force of these Regulations.*

(4) *A duty holder must—*

- (a) *ensure that the manner in which employees, visitors and neighbours will be warned of major incidents is included in the plan;*
- (b) *sign a copy of the on-site emergency plan in the presence of at least two witnesses who have knowledge in emergency planning and who must be satisfied with the content of the emergency plan and attest to the signature of the duty holder;*
- (c) *obtain approval of the on-site emergency plan from the relevant local government;*
- (d) *ensure that the on-site emergency plan is readily available at all times for implementation and use;*
- (e) *cause the on-site emergency plan to be tested or exercised in practice at least once a year and take the necessary steps to arrange for the local government to participate in such tests; and*
- (f) *give an early warning to affected or interested parties in case a major incident is likely to go beyond the borders of the establishment.*

#### **15 (4)(a)**

- The duty holder is also obligated to make some means to alert the employees, visitors as well as public of an incident whether be a near miss, an emergency preparedness or a major incident.
- The appropriate alert mechanisms shall be as legislated and guided by Fire Services Brigade Act, applicable standards, rules and by laws

#### **15 (4)(b)**

- The duty holder must legalise and take ownership of emergency plan as per law of contracts. The witnesses should be employees that have acknowledge, skill and experience to emergency.

- Fire Services must be consulted during preparation of the plan to confirm if there are adequate emergency resources or arrangements in place. For example, if the duty holder anticipates that an external emergency service would provide fire-fighting foam it should be confirmed that the emergency service can supply this.

**15 (4)(c)**

- In order to obtain confidence in the accuracy, completeness and practicability of the onsite emergency plan, the Fire Services must give any concerns in writing or sign the plan off.

**15 (4)(d)**

- The emergency plan must be communicated to all the employees and displayed conspicuously.
- It must be available at the establishment for everyone's perusal and easy access for speedy activation.

**15 (4)(e)**

- The emergency plan must be tested at least once a year. The test exercises need to be carefully planned as they are resource-intensive, and it is important that when they are carried out the maximum benefit is gained from them, and panic is not created.
- The testing must be able to demonstrate whether the plan can be put into effect successfully in case of an unforeseen and unplanned event.
- The testing must involve deployment of Fire Service personnel and resources as if they were responding to a real emergency. As such, the establishment should be prepared or informed of the test drill.
- Other designated authorities which play a role in assisting the Fire Services also need to be involved in the exercises.
- Testing exercises must simulate actual scenarios and actual responses to incidents. These may consist of live exercises or table-top exercises supported by the testing of other components (which may be done at separate times) including the communication arrangements.
- A table-top exercise should be able to demonstrate whether the constituent parts of the emergency plan, including the emergency response arrangements of different organisations, will work together. Within reason, key staff with a role to play in emergency response should have the opportunity to undertake site familiarisation visits, so that they will be able to deal with incidents that do not require the involvement of Fire Services.
- The test drill is meant to obtain the maximum benefit from an emergency plan. It is important to review the lessons learned to determine where amendments are required to the plan, and to promote good practice.
- All employees across different shifts should participate in the test drills so that they can respond correctly in the event of an actual emergency. If elements of emergency response are contracted out by the duty holder, for example spill response and clean up, these contractors should also be included. Although there are clear training benefits to be gained from a test, it is not solely a training exercise; the main purpose is to demonstrate that the plans are accurate, complete and practicable.



- The debriefing following an emergency plan exercise should be carried out in an open and blame-free atmosphere. This should allow any problems in implementing the emergency plans to be identified, the reasons for the problems to be discussed and appropriate solutions to be considered.
- A record should be kept of the identified lessons. Where necessary, revisions to the emergency plan should then be followed up to ensure that the identified lessons from testing lead to improvements. Information to the public should also be updated if necessary.

**NB!!:**

- Live exercise is usually centred on a simulation of an event selected from the major incident scenarios identified for the establishment. Such scenarios should be clearly indicated in the safety report.
- Table-top exercises are meant to bring together the appropriate people and resources in one place to work through their roles in the event of an emergency, in a realistic way. Table-top exercises are flexible and can test the response to more than one of the identified major incident scenarios with very little additional effort and expense. They are particularly suitable for exercising longer term elements of the plan, such as the recovery phase.
- When a table-top exercise is supplemented by live testing of communication aspects a 'control post' exercise can be used to examine the adequacy of the communication arrangements between all the key players in an emergency. It will normally involve all the appropriate resources at the posts that they would take up in the event of an incident, or at a suitable artificial location. Without deploying any resources, players work through the necessary communications that need to be carried out in response to an accident. The exercise may include simulating some of the potential problems that can be experienced during real incidents.
- In the aftermath of a major incident, or a dangerous occurrence which had the potential to become a major accident, open discussion and impartial consideration may be difficult to achieve. The response to a real emergency cannot, therefore, be considered a suitable or adequate substitute for the testing of an emergency plan, although valuable lessons can be learned from real incidents.

**15 3(4)(f)**

- The early warnings should be given to the neighbours and public only when the incident is likely to escalate outside of the MHI site.
- There should be a reasonable way to alert the neighbours and the vulnerable during test drills to avoid panic.

(5) *The duty holder and the relevant local government must take reasonable steps to activate the on-site emergency plan in case of an incident which may result in–*

- (a) *a major incident; or*
- (b) *an uncontrolled event which may reasonably be expected to lead to a major incident; or*
- (c) *a near miss that could reasonably be expected to have resulted in a major incident.*

- Activation of emergency plans must be only during emergency occurrences that may escalate into a major incident and or major incidents or as advised by the Fire Services.
- The duty holder must develop the system for managing sharing of information in the event of a true major accident. This should ensure that necessary information can be identified

and communicated to people on- and off-site, the emergency services and the other authorities identified in the plan as having a role to play and requiring information. Even where a major accident has no potential for off-site consequences, there is a considerable benefit in keeping those in the vicinity of the establishment informed about what is happening.

(6) *The duty holder must review the on-site emergency plan at least once every three years and, if necessary, revise the plan.*

- The duty holder must at suitable intervals not exceeding three years review and, where necessary, revise the internal emergency plan; and test the plan.
- The nature of the scenarios should vary in each three-year cycle, to examine the range of emergency responses required for the foreseeable incidents.
- The duty holder must also take into account any changes at the establishment or within the emergency services concerned; any relevant new technical knowledge; and any relevant new knowledge concerning the response to major incidents.
- In cases where there are no material changes and no new plan prepared, the three-year review, revision and test timetable will remain.
- The duty holder shall review of the adequacy and accuracy of the emergency planning after testing drill arrangements or in any modifications or other significant changes to the establishment. With this type of a review, if any deficiencies are revealed, the plan must be revised immediately.
- As good practice, the duty holder shall inform the local government of any changes made to their internal plans which would affect the offsite plans.

(7) *The duty holder and the local government must jointly ensure that all first responders at the scene of a major incidents have the necessary skill to deal with the dangerous substances and are dressed in the appropriate emergency personal protective equipment as required in their respective emergency plans.*

- Local government/ Fire Services shall ensure that the specialised units are given responsibility to deal with MHI incidents.
- Appropriate training and emergency resources and equipment must be available to attend and manage the MHI incidents as contemplated in the onsite and offsite emergency plans.

#### Regulation 16: **Reporting of risk and emergency occurrences**

16. (1) *A duty holder must–*
- (a) *subject to regulation 8 of the General Administrative Regulations, published under Government Notice R. 929 in Government Gazette 25129 of 25 June 2003, within 48 hours, inform the chief inspector by means of telephone, facsimile or similar means of communication of–*
    - (i) *a major incident; or*
    - (ii) *an incident that brought the emergency plan into activation;*
  - (b) *investigate and submit a written preliminary incident report to the chief inspector within seven days after an emergency occurrence and a major incident;*
  - (c) *submit a final report as soon as reasonably practicable but not later than six months after the incident;*
  - (d) *investigate and record all near misses in a register which must at all times be available for inspection by an inspector and the local government.*

- As good practice, the duty holder, after a major incident or where an emergency plan has been activated, must immediately (but not later than 48 hours) inform the chief inspector, the chief director: provincial operations and the local government and the supplier of the substance responsible for the incident.
- Informing the authorities will allow the department to have access to the establishment, conduct a preliminary investigation and collect evidence when the scene has not been disturbed.

#### 16 (1)(d) &(e)

- The duty holder must submit a written preliminary investigation report within 24 hours; commence to write a final report no later than 7 days thereafter. The final report should be completed as reasonably as practicable but not later than six months after the incident has occurred.

#### 16 (1)(d)

- All near misses may be reported as ordinary incidents and be recorded in a resident incident register that is readily available for inspection by the department or the local government.

(2) *A duty holder must, in the case of an emerging major incident or an emergency occurrence that was or may have been caused by a dangerous substance, inform the supplier of that dangerous substance about the incident.*

#### Regulation 17: **Information and training**

**17.** (1) *A duty holder must, after consultation with the relevant health and safety representative or health and safety committee, ensure that all employees are adequately trained with regard to—*

- (a) *the scope of these Regulations;*
- (b) *the nature of the establishment;*
- (c) *potential major hazards and associated major incidents;*
- (d) *potential risks to health and safety caused by the identified major hazards;*
- (e) *the practices and control procedures for a major incident;*
- (f) *the content of the emergency plan and that visitors also are conversant with such content;*  
*and*
- (g) *the safety protocols and measures to be followed on-site.*

- The duty holders have the responsibility to ensure that all employees (including cleaners, security guards (in-house or outsourced) in the handling, storage, use, manufacturing and processing of dangerous substances at major hazard installations are trained on:
  - o the provisions of these Regulations
  - o good practises on handling and storage
  - o emergency planning.
- The duty holder should ensure that those personnel who are still awaiting training may only perform functions under the direct supervision of a trained person.

(2) *The duty holder must ensure that all trained employees undergo refresher training whenever there is a change in the establishment or when the risk assessment has been reviewed.*

- The training shall be periodically supplemented with refresher training to take account of changes in regulations and practice at least once every three years and a full training once the risk assessment has been revised or after a regulation 16 incident has occurred.

(3) *The duty holder must provide induction orientation about the kept substances, major hazard areas and actions to be follow in case of emergency to all mandatories, visitors and any person who, in any manner, assists in carrying out or conducting allocated duties, before they enter the establishment*

- All the visitors including contractors must also receive induction training which focuses on the nature of the MHI, what the related emergencies and incidents are, how to detect and report such emergencies as well as incident alert mechanisms and evacuation procedures.

(4) *The duty holder must ensure the induction orientation as contemplated in subregulation (3) is refreshed in the event of any change to an establishment which significantly alters the risk associated with the establishment: Provided that the induction training will be valid for periods not exceeding 12 months.*

- The induction training is valid for 12 months.
- The training shall be periodically supplemented with refresher training to take account of changes in the MHI installation and practices when they occur.

**NB:**

- The Department or its authorized body, may audit the establishment to verify the effectiveness of the system in place, in providing training of staff employees with their role and responsibilities in the value chain.
- A manual for training must be developed and be updated as to when there is a necessity and be made available for inspections.
- There are different types of training, categorised as follows:
  - i. General awareness/familiarization training:**
    - Provides for familiarity with the nature of the establishment; related incidents, labelling, marking, placarding and packaging, segregation and compatibility requirements and available emergency response plan.
  - ii. Induction training:**
    - Proportionate with the risk of exposure in the event of a release and the functions performed, each person shall receive training on: available emergency response information and how to use it.
  - iii. Function-specific training:**
    - The detailed training concerning specific dangerous substance requirements which are applicable to the function that person performs; methods and procedures for incident avoidance, such as proper use and handling equipment and appropriate methods of stowage of dangerous goods.
    - Such training shall include a description of the classes of dangerous substances; a description of the purpose and content of the dangerous goods SDSs document; general dangers presented by the various classes of dangerous goods and how to prevent exposure to those hazards, including if appropriate the use of personal protective clothing and equipment; and Immediate procedures to be followed in the event of an unintentional release of dangerous goods, including any emergency response procedures for which the person is responsible and personal protection procedures to be followed.

- Records of all safety training undertaken shall be kept and be available for inspections

#### Regulation 18: **General duties of suppliers**

**18.** (1) *Every person that supplies a dangerous substance to an establishment must issue a safety data sheet that is supplied with the substance and must also provide basic information for training on the use and handling of the substance.*

- A supplier in this context is anyone who acts as an intermediary between the manufacturer and the user, ensuring that communication is forthcoming and supplied product is of acceptable quality. In some instances, the manufacturer may be the supplier.
- As such, the supplier must also comply with the provision of section 10 of the Act and ensure that a latest version of a Safety Data Sheet (SDS) is supplied with the product.
- The SDS must comply with applicable standards.
- Section 10(3) of the Act states that:

***“Any person who manufactures, imports, sells or supplies any substance for use at work shall-***

- (a) ensure, as far as is reasonably practicable, that the substance is safe and without risks to the health when properly used; and***
- (b) take such steps as may be necessary to ensure that the information is available with regard to the use of the substance at work, the risks to the health and safety associated with such substance, the conditions necessary to ensure that substance is safe and without risk when properly used and procedures to be followed in the case of an accident involving such substance”***

(2) *On receipt of information contemplated in regulation 16(2), a supplier of a dangerous substance involved in an emerging major incident or potential major incident must inform all clients supplied with that substance of the emerging potential dangers surrounding the dangerous substance.*

- The supplier has an obligation and an authority which exists under the Act to provide developing information which was not ordinarily available and has come to the attention of that specific supplier.
  - As such, the supplier shall ensure that the current SDS has been revised to include the latest information and that all his clients are provided with the latest version of the SDS, without prior request.
  - The supplier must investigate all reported or suspected emerging incidents, amend the SDS and communicate the changes to their clients.
- (7) *A supplier must, in the event of a major incident with regard to the dangerous substance supplied, provide information and advice that must be readily available on a 24-hour basis to all duty holders, the relevant local government and any other body concerned.*
- The supplier must be available materially on call for twenty-four hours a day, seven days a week, all the time without stopping even during public holidays to offer assistance in case of a need or emergency to the user of the supplied substance as well as the local government or any other interested party.

#### Regulation 19: **Payable fees**

**19.** (1) *A duty holder must pay a prescribed fee each time a notification, a renewal or a revision of a risk assessment is sent to the chief inspector: Provided that the chief inspector may grant an*

*exemption from payment of such fees or may determine any other fee, if necessary.*

- These are the fees charged for processing the registration as an establishment.
- The amount of payment processing fees depends on the pricing model preferred by the Chief Inspector as revised from time to time.
- The fee will be payable every time when there is a renewal or updating of current information.

(2) *The chief inspector may waive but not refund the whole or any part of any fee paid or payable under these Regulations.*

- The paid fees are non-refundable, however the chief inspector may waiver the payable fees when necessary.
- Fees are prescribed on Annexure B and OHS DIRECTIVE NO: CD/OHS/REG FEES/01

**PAYMENT DETAILS**

Account Name: Department of Labour

Bank: First National Bank

Account No.: 62025135577

Branch Code: 253145

Reference: OHS: MHI: CLASS\_\_: [company name]

**ANNEXURE B**

- The fees for the registration and renewal of a certificate of registration are set out in the third and fourth columns of the table below:

CATEGORY OF MHI	CLASSES OF MHI	REGISTRATION FEE	RENEWAL FEE
Considered to be an MHI	-	350	350
Storage, use, handling, manufacturing and processing of one or more dangerous substances	LOW	350	350
	MEDIUM	400	400
	HIGH	450	450

**Regulation 20: MHI Advisory Committee**

**20.** (1) *The chief inspector may, with the approval of the Advisory Council for Occupational Health and Safety, establish an MHI Advisory Committee to advise on any matter related to major hazard installations, codes, standards and training requirements: Provided that any accredited or approved training must be in accordance with South African Qualifications Authority standards.*

- The MHI Advisory Committee (AC) shall be approved by the Advisory Council established under section 2 of the Act. Ideally, the MHI AC shall appoint an independent chairperson approved by the Chief Inspector and the head of MHI sub directorate shall be the secretariat of the MHI AC.

- The Secretariat shall in particular:
    - support the Chair in ensuring the smooth functioning of the MHI AC;
    - provide strategic leadership for the MHI fraternity;
    - report on the overall implementation of the MHI's activities; and
    - represents the MHI sub directorate externally and develop strong relations with the Co-Regulators, the MHI industry and other stakeholders.
  
  - The MHI AC functions include:
    - o Advising the Department on ways to maximise compliance to these Regulations;
  
    - o Recommendation of improvement interventions in the performance of these Regulations but not to take action enforcing such recommendations.
  
    - o The formulation of emerging standards, specifications or other forms of guidance for the purpose of assisting the duty holders to comply and keep up with the international technologies that may impact on these Regulations.
    - o The promotion of education and training in the occupational and safety specific to these Regulations;
  
    - o The collection and dissemination of information on occupational health and safety specific to these Regulations
  
  - The MHI AC shall consist of less than 18 members, namely:
    - (a) head of MHI sub directorate;
    - (b) three Principal Inspectors in the subject field, serving the Department;
    - (c) two members from organised labour;
    - (d) three from business representing MHI fraternity;
    - (e) two experts from Approved Inspection Authority nominated by the Chief Inspector;
    - (f) one member from South African National Accreditation Systems (SANAS);
    - (g) Four members from Local Government functioning at SALGA or National level who have authority to influence the implementation in respective provinces, of the Land Use/Town Planning; Disaster Management and Fire Safety and Emergency Response)
    - (h) two nominated interested parties
  
  - The MHI AC may not be present during or take part in the discussion of, or taking of a decision on, any matter in which that member or his or her spouse, life partner, child, business partner or associate or employer other than the Department has direct or indirect financial interest.
  
  - Upon appointment, the MHI AC member shall submit a written statement to the MHI AC, a written statement in which he or she declares whether or not he or she has any interest contemplated above.
- (2) *The chief inspector shall appoint members of the MHI Advisory Committee for a period that he may determine at the time of appointment: Provided that the members are approved by the Advisory Council for Occupational Health and Safety.*

- The Advisory Council of Occupational Health and Safety and or the Chief Inspector shall guide and approve terms of reference in the manner in which the MHI AC shall be appointed, period of office, how the shall hold meetings and report back to the Advisory Council.
- The MHI AC shall make rules relating to the calling of meetings, the determining of a quorum for and the procedure at such meetings, and generally relating to all matters which may be necessary for the effective performance of the functions of the MI AC.

(3) *Any person affected by the decision of the MHI Advisory Committee may appeal to the chief inspector within 60 days of such decision becoming known and the chief inspector shall, after considering the grounds of the appeal and the MHI Advisory Committee's reasons for the decision, confirm or set aside or vary the decision or substitute such decision for any other decision which the MHI Advisory Committee in the chief inspector's opinion ought to have taken.*

(4) *Any person aggrieved by the decision taken by the chief inspector under subregulation (3) may, within 60 days after the chief inspector's decision, appeal against such decision to the Labour Court.*

**Regulation 21: Approved inspection authorities**

**21.** (1) *An inspection body accredited in terms of the Accreditation for Conformity Assessment, Calibration and Good Laboratory Practice Act, 2006 (Act No. 19 of 2006), or a foreign inspection body must apply for registration to the chief inspector on Form B.*

- All approvals shall be paid as prescribed on Annexure B and OHS DIRECTIVE NO: CD/OHS/REG FEES/01

**PAYMENT DETAILS**

Account Name:	Department of Labour
Bank:	First National Bank
Account No.:	62025135577
Branch Code:	253145
Reference:	OHS: MHI: AIA: [company name]
FEE:	R450

(2) *On receipt of the application contemplated in subregulation (1) the chief inspector must, subject to conditions if deemed necessary, approve the application.*

- For the purpose of approval of Inspection bodies, verifications and checks shall be made by the Department in order to advise the Chief Inspector.
- The approval may be limited to the low, medium and high hazard establishment.
- The approval may be rejected with reasons or approved with conditions attached.

(3) *In the event of a dispute between an approved inspection authority (AIA) and a duty holder regarding a technical or safety matter, which cannot be reasonably resolved, the disputing parties may refer the case to the chief inspector in writing for arbitration, setting out the full details of the dispute.*



- (4) *The chief inspector must, upon receiving a dispute contemplated in subregulation (3), appoint an arbitrator mutually agreed upon between the South African National Accreditation System and the parties.*
- (5) *The dispute must be investigated and arbitrated within a maximum of 90 days after the submission of a request for arbitration.*
- (6) *The chief inspector may at any time withdraw any approval granted to an approved inspection authority, subject to section 35 of the Act.*

#### Regulation 22: **Duties of approved inspection authority**

- 22.** (1) *An approved inspection authority must ensure that the risk assessment contemplated in regulation 10 is carried out in terms of SANS 1461.*
- (2) *An approved inspection authority must provide results on the classification and acceptability of risk, and make recommendations with regard to the following:*
- (a) *the suitability of the existing emergency procedures for the major risks identified;*
- (b) *any organisational measures that may be required;*
- (c) *risk reduction proposals; and*
- (d) *any other relevant matter.*
- (3) *The approved inspection authority must, after each risk assessment, furnish the duty holder with the latest risk assessment report and attachments as required in terms of SANS 1461: Provided that such reports must be made available upon request by the chief inspector.*
- (4) *An approved inspection authority must, on a monthly basis, submit a list of all major hazard installations assessed, to the chief inspector, in the form contemplated in Annexure E.*

#### Regulation 23: **Closure**

- 23.** *A duty holder must notify the chief inspector, the relevant chief director: provincial operations and the local government in writing, not less than 60 days prior to the installation ceasing to be a major hazard installation.*
- For the purposes of closure of establishments, the duty holder must make it known to the department and to the local government about their intention to decommission the establishment.
  - The duty holder must ensure that the management mechanisms / methods are in place to remove any remaining dangerous substance for the prevention of undue or reasonably avoidable adverse impacts (safety/health/environmental) and for the enhancement of the positive benefits during the closure process
  - The plan should include removal of the dangerous substance from the MHI site by processing the dangerous substances into products, or removing the leftovers as waste and by taking cognisance of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) requirements for bestowing a 'Duty of Care' on those who cause, have caused or may in future cause pollution or degradation of the environment, as per Section 28 (1) of NEMA.
  - There must be robust systems to manage the decommissioning project and such safe systems must include:
    - o Quantitative Risk assessments.
    - o method and detailed step-by-step operating instructions
    - o decommissioning certificates and etc.

**Regulation 24: Offences and penalties**

24. (1) A duty holder who contravenes any of the provisions of these Regulations commits an offence and is, on conviction, liable to a fine not exceeding R5 000 000 or to imprisonment for a period not exceeding 24 months.

(2) The maximum permissible fines that may be imposed for contravening the Regulations are set out in the table below:

PREVIOUS CONTRAVENTIONS	CONTRAVENTIONS OF REGULATIONS: 3(1), 4(1), 4(4), 7, 10, 11(1), 12(1), 13(1), 15(2), 16, 21(6) and 22
No previous contravention	R500 000
A previous contravention within 12 months	R1000 000
A previous contravention in respect of the same contravention within three years	R1500 000
Three previous contraventions in respect of the same provision within three years	R5000 000

- If a duty holder or and AIA fails to comply with any provision of these regulations, such duty holder or AIA is guilty of an offence and can be fined as prescribed in the above table.

**ANNEXURE A****Dangerous substances to which these Regulations apply**

- The quantities indicated in Chapter 1 and 2 apply to substances which are stored and handled onsite for the purposes of classifying the establishment as Low, Medium or High Hazard Establishment.
- The threshold quantities indicated in the columns of table MHI A1 or MHI A2 indicate the entry quantities for the relevant class / category:
  - o For total stored quantity less than the quantity in Column 1 of table MHI A1 or MHI A2, the facility is exempt from the MHI Regulations.
  - o For total stored quantity between those indicated in Column 1 and Column 2 of table MHI A1 or MHI A2 then the establishment is a Low Hazard establishment.
  - o For total stored quantity between those indicated in Column 2 and Column 3 of table MHI A1 or MHI A2 then the establishment is a Medium Hazard establishment.
  - o For total stored quantity equal to or greater than those indicated in Column 3 of table MHI A1 or MHI A2 then the establishment is a High Hazard establishment.
- Inventory calculation:
  - o For an establishment storing more than the threshold quantities indicated in tables MHI A1 and MHI A2 the establishment is an MHI.
  - o For multiple dangerous substances stored / handled at the establishment, the aggregation rule and the 2% rule will apply. See notes 16, 16.1, 17, 17.1 and 18.1.

- If a mobile unit (e.g. tanker, wagon, isotainer, cylinder, dumpy, etc.) is used as a storage unit, i.e. connected to the process, drawing material on a continuous basis, then this must be included in the inventory used in the classification for an MHI.
- When calculating inventories for classification, refer to the Safety Data Sheet from the supplier of the substance for the relevant properties such as density / specific gravity, etc.
- Vehicles used for the delivery of dangerous substances (e.g. road tankers, rail tankers, etc.) are excluded in the calculation of the threshold quantities. However, these are considered in the calculation of risk (taking into account the amount of time they spend onsite).
- Truck stops or rail sidings used during the transportation of dangerous substances are excluded in these regulations.
- For mixtures the following applies:
  - o For mixtures containing dangerous substances and inert substances, the proportion of the mixture made up by the dangerous substance(s) may be used as the basis for determining the threshold quantity. Example: A mixture containing 3 tons of a P2 Flammable gas (threshold quantity 2.5 tons) and 10 tons of an inert gas will be classified as Low Hazard due to the quantity of dangerous substance (3 tons), even though the total mass of the mixture is 13 tons.

### **Adjustments in Chapter 1:**

- the UN number for Ammonium Nitrate must be 2071.
- the UN number for Potassium Nitrate must be 1486.
- Note 7 (a) must read: Potassium nitrate (2 000 / 5 000 / 10 000): composite potassium nitrate-based fertilizers composed of potassium nitrate in prilled/granular form. Addition of low hazard quantities indicated.
- Note 7 (b) must read: Potassium nitrate (500 / 1 250 / 5 000): composite potassium nitrate-based fertilizers composed of potassium nitrate in crystalline form. Addition of low hazard quantities indicated.
- Note 8 does not relate to Potassium nitrate The UN number for Potassium Nitrate prill and crystalline is 1486.
- The UN number for Bromine is 1744.
- The UN number for Ethylene oxide is 1040.
- Petroleum products include substances such as Petrol (UN 1203), Diesel (UN 1202), Kerosene (UN 1223) and Crude Oil (UN 1267) and others as listed as petroleum

products in Annexure A, Chapter 1. Lubrication and Hydraulic Oils, waxes, tars with flash point higher than 60 degrees Celsius are excluded.

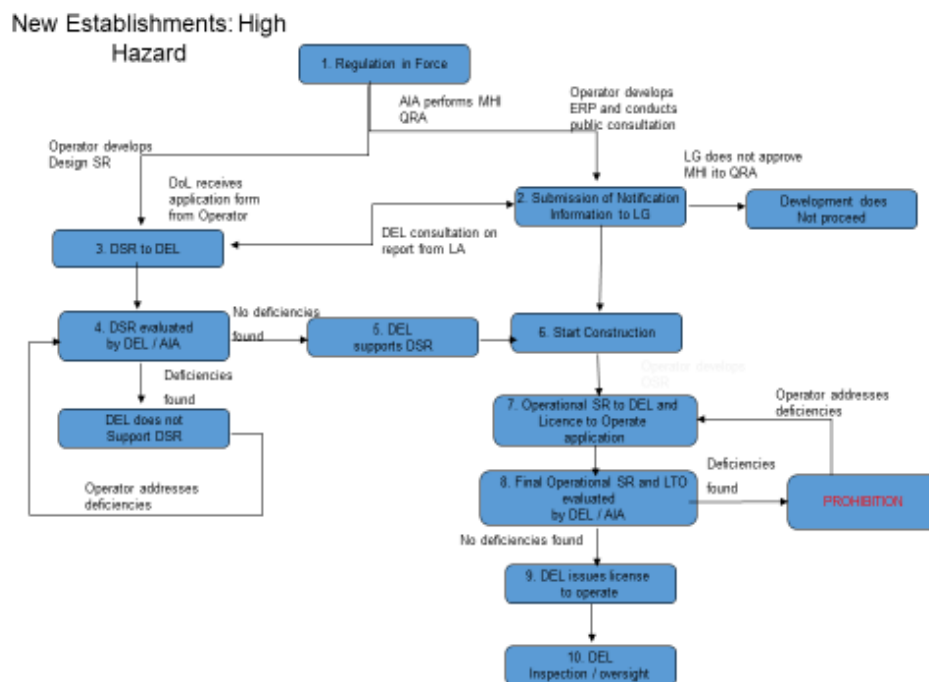
- The UN number for Tetrahydro-3,5-dimethyl-1,3,5-thiadiazine-2-thione (Dazomet) is 3077.

## Adjustments on Chapter 2

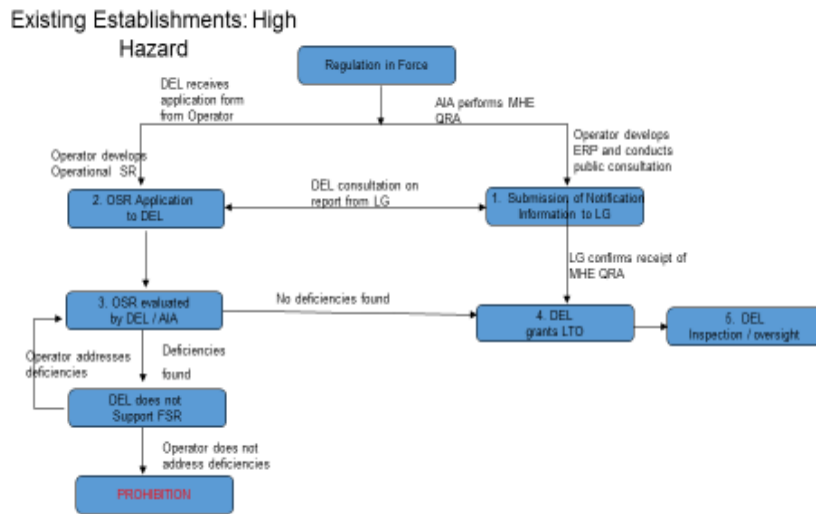
- o Note 9 relates to P5a flammable.
- o Note 10 relates to H2 Acute Toxic.
- o Paragraph 11 in note 12 refers to note 11.
- o Note 12 relates to aerosols.
- o P5a refers to note 13 instead of note 12.
- o [2023-07-28 comment]: P5a Flammable Liquids: Category 1 flammable liquids shall be treated as P5a irrespective of the temperature and pressure conditions under which they are stored or handled.

## CLASIFICATION CHARTS

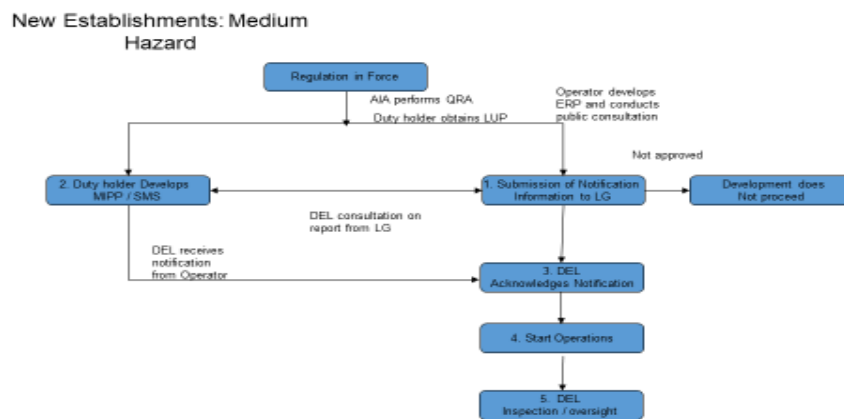
### Chart 1



**Chart 2**

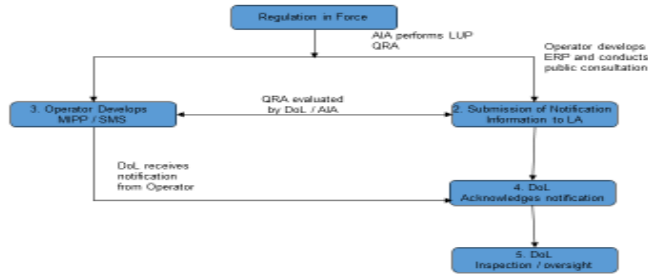


**Chart 3**



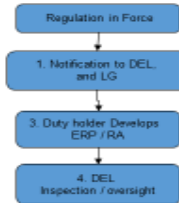
**Chart 4**

Existing Establishments: Middle Hazard



**Chart 5**

Existing / New Establishments: Low Hazard





## employment & labour

Department:  
Employment and Labour  
REPUBLIC OF SOUTH AFRICA

### FORM A

#### NOTIFICATION OF MAJOR HAZARD ESTABLISHMENT

*(Regulation 4)*

*Detailed guidance can be obtained from Major Hazard Installation Regulations, 2022 and it is available on the Department of Labour website, [www.labour.gov.za](http://www.labour.gov.za).*

*The completed form must be sent to the Department of Labour by hand delivery or email*

**Physical Address:**

*215 Francis Baard Street,*

*Laboria House Building*

*Pretoria, 0001*

*or alternatively, you may send it by e-mail to: [webmail@labour.gov.za](mailto:webmail@labour.gov.za)*

*As electronic communication cannot be guaranteed to be secure, you may decide not to use this means if you regard any of the information as confidential.*

*A determination must be made by the applicant who the correct recipient at the local government is. This recipient must be appropriate members of senior management at the local government.*

**1. BASIC PARTICULARS OF THE ESTABLISHMENT**

Name of the establishment:	
Registered name of the business:	
Company Registration No:	
Chief Executive Officer:	
CEO's physical Address:	
CEO's Telephone number:	
Name of the Responsible person and contact:	
Physical Address of the Establishment:	
Telephone number of the Establishment:	
Email:	
Industry Sector:	
Brief description of activity or proposed activity concerned:	
Health and safety representative(s). (At least two where applicable)	
Trade Union	
Expected Number of employees at one point	

**2. CLASSIFICATION**

2.1 Type of the establishment (mark with an X)

<b>Low</b>	<input type="checkbox"/>	<b>Medium</b>	<input type="checkbox"/>	<b>High</b>	<input type="checkbox"/>
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2.2 Type of Notification

**New:** **Modification:** **Existing:** 

Comment on the life time of the establishment:

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2.3 Were the employees consulted and informed of the status of the establishment

Yes  No 

Attach proof



**3. PUBLIC AWARENESS**

3.1 Were the neighbours and public notified?

Yes  No

Attach proof

3.2 Were there any objections?

Yes  No

If yes, attach proof of those objections

3.3 Were the objections regarding health and safety of the public?

Yes  No

If yes explain and attach proof of resolution of objections:

**4. INVENTORY OF SUBSTANCES**

Provide an inventory list of all substances that will be present, their physical form and quantity.

Physical form includes gas, liquid, powder and solids.

Quantity is the maximum which is anticipated will be present.

The information as in Annexure A must be used.

<b>Name of Substance</b>	<b>Physical Form</b>	<b>Maximum Quantity</b>

Details of the elements of the immediate environment liable to cause a major incident or aggravate the consequences thereof:

Describe other establishments or features of environment which could lead to a major incident on your site.

<b>Neighbouring establishments</b>

Describe elements of surrounding environment which could make the consequences of a major incident worse (e.g. nearby housing; other occupied buildings; farming, sewage works, etc.)

<b>Surrounding Vulnerabilities</b>
<b>Other</b>

**5. DETAILS OF APPROVED INSPECTION GOVERNMENT**

5.1 Name of the AIA (as relevant): \_\_\_\_\_

5.2 AIA number: \_\_\_\_\_

(Attach certificate)

5.3 SANAS Certificate Number: \_\_\_\_\_

(Attach certificate & schedule)

5.4 Name of Assessor: \_\_\_\_\_

(Attach competency records)

5.5 Telephone number: \_\_\_\_\_

**6. RISK ASSESSMENT**

6.1 Type of risk assessment

(a) Proposed:

(b) Review:

(c) Revision:

6.2(a) If risk assessment is not a proposed, when was the first risk assessment conducted?

\_\_\_\_\_

(b) By who was the assessment conducted? \_\_\_\_\_

(c) When did the assessment expire? \_\_\_\_\_

(d) Age of the Establishment \_\_\_\_\_

6.3 Subsequent risk assessments

DATE OF MHI RISK ASSESSMENT	TYPE OF MHI RISK ASSESSMENT	AIA/

6.4 Date of evaluation of current risk assessment: \_\_\_\_\_

Attach proof

Indicate variations & reasons?

**7. SITE MAPS**

Included?

Yes  No **8. LOCAL GOVERNMENT**

8.1 Name of relevant Local Government \_\_\_\_\_

8.2 Contact Person: \_\_\_\_\_

8.3 Contact Details: \_\_\_\_\_

8.4 Land use approval status

Yes  No 

Attach proof.

If not, state the reasons:

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8.5 Acknowledgement by Local Government

Official Stamp

Received by: \_\_\_\_\_

DESIGNATION: \_\_\_\_\_

Contact: \_\_\_\_\_

Signature: \_\_\_\_\_

**9. EMERGENCY PREPAREDNESS**

9.1 Emergency preparedness plans

(a) On-site plan

Yes  No 

Attach proof

If not yet concluded attach action plan with clear targets dates of not more than six months.

Comments:

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(b) Off-site plan

Yes  No 

Attach proof

If not yet concluded attach action plan with clear targets dates of not more than six months.

Comments:

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9.2 *Relevant Local government responsible for activating emergency plans*

Name: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Designation: \_\_\_\_\_

*Was there an agreement between the establishment and Local government?*

Yes  No

*If yes Attach proof*

*If no, comment on the plan of action and further agreements:*

\_\_\_\_\_

\_\_\_\_\_

9.3 *What is the revision period (maximum of 3 years)? \_\_\_\_\_*

9.4 *Were employees consulted?*

Yes  No

*Attach consent from relevant health and safety representative (s) or health and safety committee.*

9.5 *Were employees trained on emergency preparedness and procedures to follow during all types of emergencies?*

Yes  No

*If yes attach proof.*

*If no, attach plan of action.*

*Signed by:*

**1. Duty Holder (Name & Signature):** \_\_\_\_\_

**2. Responsible person (Name & Signature):** \_\_\_\_\_







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