



## Saudi Aramco Suppliers Safety Management System



# SAFETY is Protection

(if only we follow the rules)



"To live each day injury and violation free, on and off the job"





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## Foreword

Saudi Aramco has developed this safety manual to help suppliers achieve our national safety vision, “To live each day injury and violation free, on and off the job.”

The purpose of this manual is to define the Suppliers Safety Management System (SSMS) and help our suppliers to manage the safety of their facilities throughout the kingdom - and to perform their daily activities with the best safety, health, and environmental standards - while keeping them maintained to the highest levels. This manual is intended to help suppliers develop their own SSMS. The safety manual is fully aligned with the principles underpinning the Saudi Aramco Safety Management System, and is based on international standards for health and safety management.

We require our suppliers to conduct their business in a manner that prevents incidents which cause loss of life, bodily injury or illness, or damage to property or the environment. We require that our suppliers consider safety to be part of their business strategies, and it is equally important to our operations, maintenance, and project commissioning activities.

The commitment to safe operations of our suppliers goes beyond on-the-job safety; for example, they must also address the operation of motor vehicles, since traffic accidents continue to be the largest percentage of the total occupational fatality statistics. Therefore each supplier is accountable for the behavior of

their drivers and must understand and follow the traffic rules and regulations outlined in the Operational Control- safe operation of vehicles section of this manual.

All of Saudi Aramco’s suppliers are responsible and accountable for their safety behavior. Through application of this SSMS, we not only send the message of our serious commitment, but provide the framework on which the right behavior can be promoted and regulated by our suppliers. By implementing this SSMS, our suppliers shall move closer to fulfilling their individual responsibilities for meeting the objectives and expectations of Saudi Aramco.

Our suppliers must demonstrate continual improvement within their SSMS as its associated objectives are based on that commitment. The different sections in this manual will generate data that can be measured and show whether the goal of a safer workplace has been achieved.

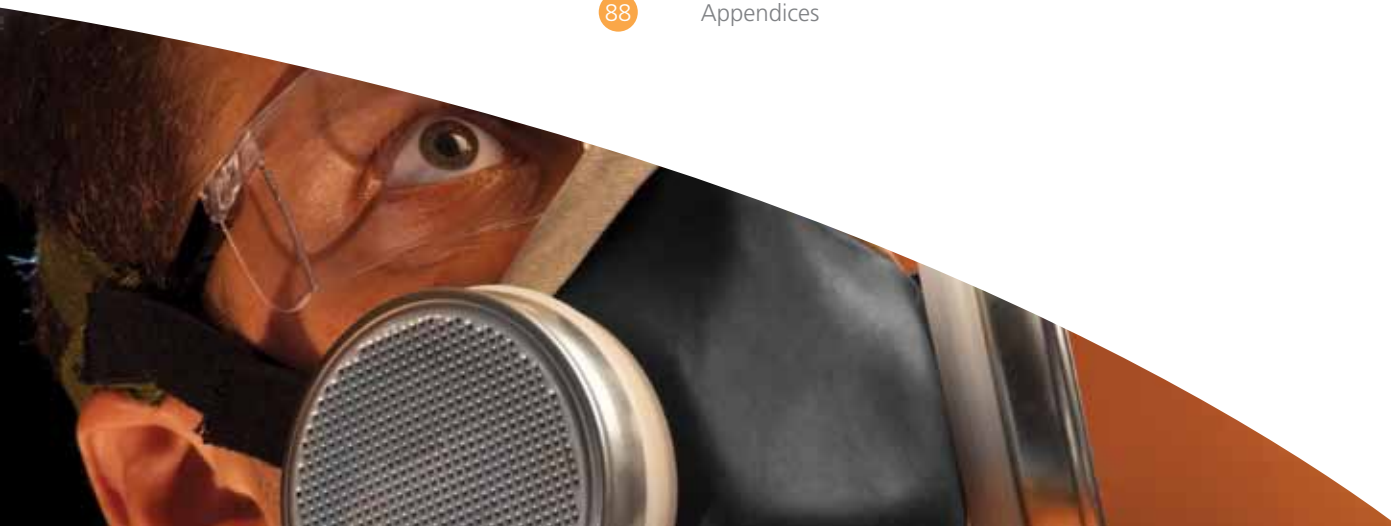
It is important to remember the importance of this document. The pain of a workplace injury is like a wave that ripples across lives from the worker, to his family, to their community and throughout the nation. We are all affected. We all suffer in some way. Therefore, we must work together.

By protecting one worker, we protect each other.



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## Section 4

# Introduction to the Suppliers Safety Management System

## Executive summary

Saudi Aramco recognizes that by helping their suppliers to improve their health and safety performance, there will be significant benefits to the local economy in the Kingdom, through the prevention of injury and ill health and their associated enormous human and financial costs. For these reasons, Saudi Aramco has developed this Suppliers Safety Management System (SSMS) Manual to help suppliers manage safety better and avoid unnecessary losses. The SSMS is based on internationally recognized models for health and safety management, but also includes enhancements that provide effective tools to simplify the process.

In this section you will learn how to use the SSMS manual to help you develop a specific safety manual for your own organization.

Please follow the steps highlighted to ensure that the implementation and operation of your safety system is made as simple as possible. Read through each of the steps and re-read them again, until you understand completely what is required. The SSMS manual has been written using templates to help you with each section, and these templates are specifically designed to comply with the requirements of international standards for health and safety management.

## Overview of the Safety Management System

The SSMS manual that Saudi Aramco's suppliers can adopt is designed to meet or exceed the requirements of the International Management System Standard for Occupational Health and Safety, OHSAS 18001. The following topics are covered in this manual:



## Section 5 Health and Safety Policy

The Health and Safety Policy sets the overall direction of the management system. It includes commitments to comply with legal requirements and continual improvement. The minimum requirements for such a policy will be highlighted, and an example has been provided to demonstrate what is required.

## Section 6 Identification of Hazards, Assessment and Control of risk

The SSMS is based on the ability to identify hazards in the workplace, assess the level of risk associated with the hazard, and identify controls to manage the hazard. A solid risk assessment process provides the backbone for an effective safety management system. The SSMS manual provides guidance on what is meant by hazards and how to identify them. It also explains what is meant by risk, and how a risk assessment should be used to evaluate the risk associated with each hazard identified. The manual also explains the importance of control measures for managing risk, giving examples at each stage, and highlights how required controls should be managed as part of the risk control process. Templates are provided for the whole process, which can be adopted immediately. Suppliers must be aware of all the legal and other requirements that pertain to their operations and be able to demonstrate compliance to these requirements.

## Section 7 Objectives, Targets and Plans

The Continual Improvement Program is required to comply with the Health and Safety Policy. Therefore the SSMS needs to be documented and managed, and the SSMS manual explains how management programs must be identified and managed as part of the overall safety system, and provides a simple method for addressing this requirement.

## Section 8 Resources, Roles, Responsibility, Accountability and Authority

The SSMS must be properly resourced and all employees have to be aware of their safety responsibilities, both to themselves and others. The SSMS manual helps to identify the necessary resources and responsibilities for personnel within the organization to manage safety, and a simple format for recording this information is provided to make this task much simpler.



## Section 9 Competence, Training and Awareness

It is strongly suggested that individual process owners are assigned ownership of different parts of the SSMS manual. For example, the managing director could be responsible for the sections on Safety Policy, Management Review and Resources, Roles, Responsibilities, Accountability and Authority. The Facilities Manager could be assigned the section on Monitoring and Measurement. The Human Resource Manager could be assigned the section on Competence, Training and Awareness, etc. As the system develops, certain critical processes must be assigned to specific process owners, e.g., Work Permits. This will help to ensure sustainability of the SSMS over time.

The safety training program must ensure conformance with the documented policies and procedures and the requirements of the SSMS. All employees must be made aware of their specific roles and responsibilities within the SSMS, including emergency preparedness and response requirements, as well as the potential consequences of departing from documented procedures. Suppliers must be able to demonstrate that their employees are competent to perform their jobs safely. Training needs must be formally identified, and cover such topics as job specifications, competency, and risk assessments. Objectives should be documented for each training course, records of attendance maintained, and evaluations of the training assessed to determine the effectiveness of the training.

## Section 10

# Communication, Participation and Consultation

Suppliers must establish internal and external channels of communication to effectively manage health and safety, and for ensuring that the safety system involves all employees at all levels. Specific templates are provided to demonstrate how this can be achieved.

## Section 11

# Operational Controls

Operational controls are those procedures that are necessary to control safety across the whole operation. Examples of such procedures are Chemical Handling and Awareness, Work Permits, Management of Change, Control of Personal Protective Equipment, Control of Lifting Devices, Purchasing, etc. The importance of risk assessments in identifying operational control is highlighted.

## Section 13 Emergency Preparedness and Response

### Section 12

## Control of Records

Records are required to ensure that the SSMS is operating effectively. Safety procedures (e.g., Operational Controls) will have associated records to verify that the procedure was followed, etc. The SSMS manual provides a simple method for ensuring that all records associated with the SSMS are identified and remain legible, identifiable and traceable. The importance of risk assessment in identifying safety records is reinforced.

### Section 13

Actual and potential emergency situations must be identified, and plans put in place to respond to emergency situations. The SSMS manual describes the contents of an Emergency Response Plan, and the importance of risk assessment in identifying potential emergencies is reinforced.

### Section 14

## Monitoring and Measurement

Suppliers must record and manage the monitoring requirements that form part of the SSMS, e.g., checks on fire equipment, safety controls, etc. The SSMS manual identifies some of the different types of monitoring and measurement required, and provides an effective template for managing this information. The importance of risk assessment in identifying monitoring requirements is again reinforced.

### Section 15

## Incident Investigation

It is important to define what is meant by an incident, and to ensure that all incidents are reported promptly and investigated thoroughly. The SSMS manual provides effective tools for reporting and investigating these incidents, and for ensuring that the corrective action system is engaged to prevent any recurrence.



## Section 16

## Nonconformity, Corrective Action and Preventive Action

Any compliance failures or potential compliance failures must be recorded, and action taken - in the form of corrective and preventive actions - to prevent a recurrence of the failure. The SSMS manual explains what the terminology means, and also provides templates for nonconformance, as well as corrective and preventive actions.

## Section 17

## Internal Audit

An internal audit program must be developed that covers all sections of the SSMS. The SSMS manual provides a template for planning, implementing and following up internal audits, and explains how they are linked to the nonconformance, corrective and preventive action system.

## Section 18

## Management Review

Suppliers must review every section of the SSMS at least once per year. The SSMS manual provides a template for managing the required review process, to ensure the system remains suitable and effective.

## Section 19

## Demonstration of Continual Improvement

The Health and Safety Policy and its associated objectives are based around commitments to continual improvement. The SSMS can be used to generate useful data to demonstrate continual improvement. Examples of such information are included in this section, including: reports on the reduction of hazards and risks, monitoring progress of objectives and plans, corrective actions, audits, inspections and reviews.



# How to use the SSMS Manual

Please follow the steps below to implement the SSMS within your organization. The templates are provided for guidance, and it is important to adhere to the following steps to ensure the implementation process is kept as simple as possible.

## 1. Health and safety policy

The Health and Safety Policy provides the overall direction of the SSMS. Use the template provided in the SSMS Manual to document a Health and Safety Policy for your own organization. It is important that the expectations are fully addressed. This policy needs to be signed off by the most senior member of the management team on site (Board member).

The work required in relation to the policy is not yet complete. The policy will need to be communicated to the stakeholders, taught, audited and reviewed. Other sections of the SSMS will be needed to meet all of the requirements required by the SSMS manual. For example, these are:

- Use the information in Section 10 Communication, Participation and Consultation to ensure that the policy is communicated to relevant personnel.
- Use Section 9 Competence, Training and Awareness to ensure that all personnel are trained in relation to the content and requirements of the safety policy.
- Specific projects that will need to be undertaken should be identified in Section 7 Objectives, Targets and Plans.

- Ensure that the policy is formally audited once per year (Section 17 Internal audit) and reviewed for its continuing suitability, adequacy and effective at the management review (Section 18) meeting.

## 2. Nonconformance, Corrective Action and Preventive Action

As you start to develop your safety management system, you will be looking at the ways you currently manage things and comparing that to the requirements specified in the SSMS Manual.

For this reason, it is important that you start using immediately the templates and process provided for nonconformance, corrective action and preventive action (Section 16 Nonconformance, Corrective Action and Preventive Action). You will then have an essential part of the management system in place the ability to identify problems and fix them as soon as possible. You must ensure that corrective actions are implemented to rectify any identified nonconformances to prevent a recurrence.

## 3. Internal audit

Now that the system for recording and managing issues is in place, you will need to plan out which parts of your safety management system will be reviewed against the specified requirements. The process for internal audit (Section 17) must be in place before this work begins, to provide a structure for a systematic review of the safety system as well as recording all of the work that you are doing to develop the SSMS from the very beginning. Use the templates



provided to plan and manage the audits, and the nonconformance, corrective action and preventive actions (Section 16) to close off any issues identified.

#### 4. Hazard Identification, Risk Assessment and Risk Control

The cornerstone of the SSMS is the risk assessment process. The importance of this section of the management system cannot be overstated (see Section 14 below). Use the templates provided for hazard identification, risk assessment and risk control (Section 6) to start the risk assessment process. Before you begin, make a list of all the areas/activities/jobs/tasks that need to be risk assessed. For each of these areas and activities, use Appendix 1 Checklist for Hazard Identification provided to identify if a hazard is present or not.

For each of the hazards identified in the checklist, complete the information required in the Hazard Identification, Risk Assessment and Risk Control form (Appendix 2). There are different examples provided to help you, but remember that the risk assessment part is just the prioritization mechanism to decide what actions to do first, and very careful attention needs to be placed on the hazard identification and risk control sections.

Some organizations use Job Safety Analyses and these are simply activity based risk assessments. The methodology can be used to develop a detailed Job Safety Analysis of any job. For example, window cleaning is not an "area," it is an "activity." If you risk assess this

activity you will identify certain hazards associated with this activity, e.g., falling from a height, dermatitis from chemicals etc., and the risk assessment can be saved as a Job Safety Analysis for the window cleaning activity. Alternatively, the assessment can be saved as a "job" or a "task."

#### 5. Emergency Preparedness and Response

It is stated in the risk assessment section (Section 6) that all potential emergencies such as fire, spill, explosion, gas leak, road accidents, etc., should be easily identifiable by setting the "Timing" of the hazard to "Emergency." A list needs to be prepared of all the potential emergencies at the site, and an Emergency Response Plan documented using the template provided in the Suppliers Safety Management System Manual (Section 13 Emergency Planning and Response). It is critical that an appropriate response plan is in place to cover all the potential emergencies. If, for example, there are over 100 fire hazards identified in the risk assessments, but only one procedure in place for fire control, then it must be verified that the procedure will be suitable in each potential scenario. Many organizations simply fail to link back their emergency response procedures to all the potential emergencies identified and rely on a generic procedure instead. The procedures need to be periodically reviewed and tested, and training provided as required.

#### 6. Objectives, Targets and Plans

The objectives documented in the Health and Safety Policy need to be actioned to ensure that they are achieved. The template provided in the

SSMS Manual for objectives, targets and plans (Section 7) should be adopted to ensure that all projects undertaken at the site, which have an impact on health and safety, are recorded, and persons assigned to these projects are told the timeframe in which the work must be completed. Initially you should consider all projects at the site to see if they have some health and safety benefit, and these could be recorded as part of the system.

Specific projects will be derived from the health and safety policy itself (Section 5), and other projects will arise from work that is necessary as part of the risk assessment process. An example of an objective is to improve the safety performance of the organization. One of the related targets is to implement a safety management system. The specific plans to achieve that target could be all of the steps highlighted in this section. It is important that Objectives, Targets and Plans are kept up to date, and are used to verify the continual improvement of the safety system over a period of time.

#### 7. Structure, Roles, Responsibilities, Accountability and Authority

An organizational chart showing the management structure of the company needs to be documented, and clearly defined roles specified for all employees.



Make a list of all the Jobs that are performed within the organization, and include all the tasks that are associated with each Job. The template provided in the SSMS Manual should be adopted (Section 8 Resources, Roles, Responsibilities, Accountability and Authority). Those with specific health and safety duties will have to be identified and their responsibilities' clearly defined. It is up to the manager who signed the health and safety policy to ensure that all relevant persons are aware of their own roles and responsibilities, and particularly that they are familiar with the requirements of the risk assessments that pertain to them. This objective is achieved through appropriate training (Section 9 Competence, Training and Awareness) and communication (Section 10 Communication, Participation and Consultation). The internal audit system (Section 17) will be used to verify that this aspect of the system is working effectively.

## 8. Competence, Training and Awareness

For each of the different Job Titles and their associated tasks (Section 8 Structure, Roles, Responsibilities, Accountability and Authority), use the template provided in the SSMS Manual (Section 9 Competence, training and awareness) to prepare versatility (skills) charts for all of the employees.

Using information from the versatility charts, and from the list of training that is identified in the Training Control section of the risk assessments, prepare a training plan for all of the training required for the site. Any additional training that may be required, (e.g., as a result of accidents, change management and legislation, etc.) should be added to the training plan. Ensure that each training course is managed as per the requirements (Section 9) of the SSMS Manual.

## 9. Communication, Participation and Consultation

There is very little point in having an excellent paper-based system if no one else in the organization is aware of what is personally required to perform their jobs safely, etc. In addition, the information that is required to complete the management system requires participation and consultation, not just with your own employees but also other groups, e.g., contractors and visitors. The system will fail quickly if people are not made aware of their own responsibilities and the responsibilities of others, if they are not trained appropriately and if they do

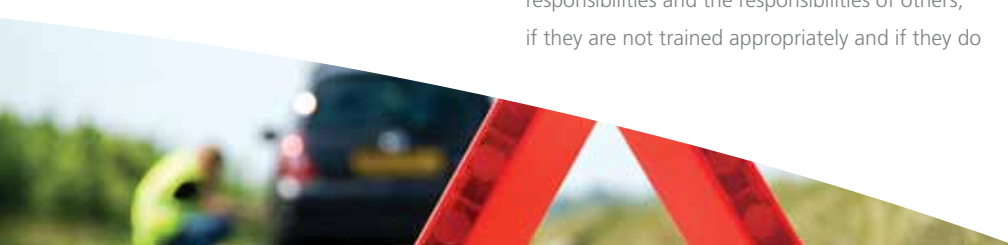
not participate in the risk assessment process. The templates provided in Section 10 Communication, Participation and Consultation of the SSMS Manual should be used to help comply with this section.

## 10. Incident Investigation

Occasionally, some part of the safety management system may fail, and in this case an incident (i.e., accident or near miss event) may occur. The SSMS requires that all incidents and near misses are recorded and investigated thoroughly to prevent a recurrence of the event. The templates provided in the Section 15 Incident Investigation should be used to comply with the requirements of the SSMS Manual. It can be assumed that the incident or near miss happened because the hazard had not been identified in the risk assessment, or perhaps the hazard had been identified, but the control measures were not adequately documented or managed. Any causal factors identified in the investigation must be rectified using the nonconformance, corrective action and preventive action process (Section 16) to prevent a recurrence of the incident. The investigation must ensure that the relevant risk assessment (Section 6) is updated as part of the close out process.

## 11. Change Management

As the safety management system matures, the risk assessment process will hopefully ensure that the safety system is effective and that accidents are avoided or minimized. Employees will know what training they need, what their responsibilities are and what they need to do to work safely. The audit process will keep the system up to date, and the corrective action process will ensure that the focus of the system is proactive that problems are





being identified by the organization itself and rectified in good time. In addition, all contractors and visitors will be controlled to ensure that accidents are avoided or minimized.

The biggest risk to the system will then be uncontrolled changes to the organization's activities, products, processes or people. For example, a new process will potentially introduce new hazards and risk, and the contractors coming on site will need to conform to the requirements of the safety system, etc. Unless a detailed procedure is implemented for management of change within the organization, it is likely that new hazards and risks will not be managed properly in the existing risk assessments, and the knock on effects will mean that risk controls will not be present and accidents will happen. A change management procedure will have to be developed that is appropriate to the organization's needs. The basic principle is that no change will be introduced without being carefully managed before, during and after the change is made.

## 12. Management Review

The management review process (Section 18) will ensure that senior management looks at the whole safety management system, at least annually, to ensure that it is functioning effectively and meeting their requirements. The focus of the review is to ensure that good safety performance is acknowledged, and that corrective actions are put in place to address any deficiencies. It is an essential step that ensures the safety system is continually improving year to year, and that the objectives (Section 7) laid out for the safety system in the health and safety policy are being met.

## 13. General Note on the Importance of Risk Assessments

For each of the hazards identified, ensure that all of the controls that are in place are identified and documented. If the hazard cannot be eliminated or substituted from the workplace, then document all the other controls that are, or may be, required. The detail that is captured will be managed by the other sections of the management system, but if you have not paid proper attention to the risk assessment process, then the other sections will be missing crucial information.

As the risk assessment process evolves, the information that is generated will be managed by the other sections of the safety management system. Each hazard will have different controls necessary to manage it (not all control boxes need to be completed for all assessments), and it is essential that the controls are managed as required. That is the purpose of the management system! It is important to regularly review each of the risk controls documented and ensure that the information identified as a risk control is being managed by the other parts of the safety system as required. Please see the following examples as to how the risk controls can be used to develop your safety management system:

### Engineering Controls

Make a separate list of all the controls that are mentioned in the risk assessment, and ensure that they are referenced in the Monitoring Control section below if there is any related maintenance activities required to maintain them in working order.

### Administration

Make a separate list of all the procedural controls that are identified in this section of the risk assessments. - This list will become Section 11 Operational Control of the SSMS Manual. Also make a list of all the records that are mentioned in this part of the risk assessment, and use the template provided in Section 12 Records of the Safety Manual to record the information. Any signage that is identified should be part of an inspection program.

### Training

Make a list of all the training that is identified in this section and ensure that it forms part of the Training Plan and competency assessments for the site. Use the templates provided in Section 9 Competence, Training and Awareness to help manage this section.

### Monitoring

Make a list of all of the monitoring and measurement activities that are referred to in this part of the risk assessments. Use the templates provided in Section 14 Monitoring and Measurement for this purpose. This section will identify all of the maintenance and calibration activities, housekeeping inspections, audits and other forms of monitoring, e.g., industrial hygiene and occupational health, essential for the effective operation of the safety system.

### PPE

Make a list of all of the Personal Protective Equipment (PPE) identified in this section of the risk assessments, and ensure that the procedure for managing mentioned in the operational

control (Section 11) section describes how to adequately manage all of the PPE required by the organization.

Any controls that are not yet in place, but need to be put in place, should be identified and managed by the nonconformance, corrective action and preventive action process (Section 16).

#### 14. Overlap of the elements in the Saudi Aramco Loss Prevention's SMS Manual and the Supplier Safety Management System Manual.

The general structure of the SSMS Manual has been aligned with the OHSAS18001 international management system standard for health and safety. The following table shows how the sections covered in this manual overlap with the elements covered in the Saudi Aramco Loss Prevention's Safety Management System manual.

Saudi Aramco Loss Prevention's Safety Management System Elements	Supplier Safety Management System Sections
1. Leadership & Accountability <ul style="list-style-type: none"> <li>▪ Goals and objectives set</li> <li>▪ Roles/responsibilities clear</li> <li>▪ Resources provided</li> <li>▪ Employee involvement</li> <li>▪ Total performance measured</li> </ul>	5. Health and Safety Policy 7. Objectives, Targets and Plans 8. Resources, Roles, Responsibility, Accountability and Authority 18. Management Review 19. Demonstration of Continual Improvement
2. Risk Assessment & Management <ul style="list-style-type: none"> <li>▪ Hazard identification process</li> <li>▪ Risk evaluation and controls</li> <li>▪ Risk management documentation</li> <li>▪ Risk communication</li> <li>▪ Risk management reviews</li> </ul>	6. Hazard Identification, Risk Assessment and Risk Control 10. Communication, Participation and Consultation 18. Management Review
3. Communications <ul style="list-style-type: none"> <li>▪ Communications plan incl. external</li> <li>▪ Communication of safety information</li> <li>▪ Theme campaigns</li> <li>▪ Safety meetings</li> <li>▪ Safety committees</li> </ul>	10. Communication, Participation and Consultation
4. Competency & Training <ul style="list-style-type: none"> <li>▪ Competencies identified for all</li> <li>▪ Cost-effective safety training provided</li> <li>▪ Consistent safety training attendance</li> <li>▪ Refresher training provided</li> <li>▪ Training records up to date</li> </ul>	9. Competence, Training and Awareness
5. Asset Integrity <ul style="list-style-type: none"> <li>▪ Project management applied</li> <li>▪ Design standards followed</li> <li>▪ MCC/start-up inspection processes</li> <li>▪ Facility inspections</li> <li>▪ Management of change</li> </ul>	11. Operational Controls 17. Internal Audit 6. Hazard Identification, Risk Assessment and Risk Control
6. Safe Operations <ul style="list-style-type: none"> <li>▪ Behavioral standards established</li> <li>▪ Behavioral standards understood</li> <li>▪ Behavioral standards maintained</li> <li>▪ Comprehensive vehicle safety program</li> <li>▪ Environmental and industrial hygiene programs</li> </ul>	11. Operational Controls

<p>7. Contractors, Suppliers &amp; Others</p> <ul style="list-style-type: none"> <li>▪ Overall contractor safety program</li> <li>▪ Safety evaluation process in place</li> <li>▪ Monitoring of contractor performance</li> <li>▪ Materials procurement review</li> <li>▪ Initial, later audits of joint ventures</li> </ul>	<p>11. Operational Controls 17. Internal Audit</p>
<p>8. Emergency Preparedness</p> <ul style="list-style-type: none"> <li>▪ Emergency risk assessment up to date</li> <li>▪ Emergency plan (s) in place</li> <li>▪ Emergency response organization</li> <li>▪ Documented drills and exercises</li> <li>▪ Annual review of entire plan (s)</li> </ul>	<p>13. Emergency Preparedness and Response</p>
<p>9. Incident Reporting &amp; Analysis</p> <ul style="list-style-type: none"> <li>▪ Open reporting of all incidents</li> <li>▪ Timely quality investigations</li> <li>▪ Specific corrective actions</li> <li>▪ Analysis of data for improvement</li> <li>▪ Periodic review</li> </ul>	<p>15. Incident Investigation</p>
<p>10. Com. Awareness &amp; OTJ Safety</p> <ul style="list-style-type: none"> <li>▪ Active participation locally</li> <li>▪ Local concerns identified</li> <li>▪ Public safety campaigns</li> <li>▪ Off-the-job safety program</li> <li>▪ Off-the-job safety perf. review</li> </ul>	<p>6. Hazard Identification, Risk Assessment and Risk Control 10. Communication, Participation and Consultation</p>
<p>11. Continuous Improvement</p> <ul style="list-style-type: none"> <li>▪ Long term measurement</li> <li>▪ Recognition programs</li> <li>▪ Internal reviews, assessment</li> <li>▪ External reviews (audits)</li> </ul>	<p>19. Demonstration of Continual Improvement 17. Internal Audit</p>
	<p>12. Control of Records</p>
	<p>14. Monitoring and Measurement</p>
	<p>16. Nonconformity, Corrective Action and Preventive Action</p>

## Section 5

# Health and Safety Policy



## Objective

Suppliers shall develop a comprehensive health and safety policy to demonstrate the necessary leadership and commitment required for the success and continual improvement of the management system.

## Expectations

### Scope

The health and safety policy must be defined and authorized by senior management and be appropriate to the nature and scale of the organization's safety risks.

### Objectives

Commitments to be included must be related to the prevention of injury and ill health, continual improvement in safety management performance, compliance with applicable legal and other requirements that relate to its safety hazards. It must also act as a framework for setting and reviewing safety objectives.

### Implementation and review

The documented policy must be implemented, maintained and reviewed periodically to ensure that it remains relevant and appropriate to the organization.

### Communication

All persons working under the control of the organization must be made aware of this policy and their own individual safety obligations. It must also be made available to other interested parties.

## Introduction

The health and safety policy sets the overall direction of the safety management system.

While many of the commitments in the health and safety policy may seem like aspirations, the other sections of the management system must demonstrate how each of those aspirations will be achieved. In particular, the section of the safety manual on Objectives, Targets and Plans must be able to demonstrate clearly how the objectives defined in the policy are being met.

The policy should give some information about the nature of the company, and it is possible to include additional information in the sample policy if necessary. It is important though that the specific expectations above are met.

The policy must be communicated to all employees and contractors, and to members of the public upon request. Communications may occur through different channels, such as induction training, awareness campaigns or inclusion as an agenda item in site meetings.

It is necessary to review the policy at least annually, but that does not mean that the revision number of the policy needs to be amended. Rather, it just needs to be demonstrated that the policy was audited, and that it was also reviewed as part of the management review process. The policy must be signed and dated by the most senior manager on site (a Board member), and that it is prominently displayed in suitable areas around the site (e.g., security, reception, canteen, etc.).

## Information to help comply with this requirement

Suppliers should use this section of the safety manual to ensure that their health and safety policy is compliant with the requirements of the safety manual.

### HEALTH & SAFETY POLICY

Our company provides comprehensive, high quality products and services to a wide range of industries. The Board of Directors regards the promotion of occupational health, safety and welfare as a priority at all levels within the organization.

## Our company is therefore committed to:

- Improving site management and best practices, so as to provide a safe and healthy work environment in compliance with relevant regulatory, legislative and corporate requirements, including the OHSAS18001 international management system standard for health and safety;

- Identifying hazards and evaluating risks associated with the company's activities on a regular basis, and documenting a programme to eliminate or reduce, as far as reasonably practicable, any risks identified so as to prevent injury and ill health;

- Meeting its obligations to employees, contractors and members of the public who may be affected by its operations;

- Consulting and communicating with its employees and other interested parties on health and safety matters, and encouraging employees to participate in the health and safety management system;

- Continual improvement and performance measurement, by setting and reviewing on a regular basis health and safety objectives, targets and management programmes at all levels within the company;

- Ensuring, through appropriate training, planning and communication, that all personnel on-site are aware of their responsibilities regarding health and safety and competent to perform their jobs;

The success of this policy requires commitment from all employees and contractors. It is the

responsibility of each employee to observe all health and safety rules and procedures and co-operate with the company in complying with its statutory obligations. Employees must be aware at all times of the responsibility that they have for both their own safety and the safety of others;

Responsibility for implementation of the safety policy lies with the Managing Director, who ensures through the General Manager and line management that the objectives of the health and safety policy are met. A safety management system based on the requirements of OHSAS18001 is being prepared for the site;

This health and safety policy is communicated, implemented and maintained at all levels throughout the organization. It is periodically reviewed and revised to ensure its continuing suitability and adequacy, and is available to external interested parties upon request.

---

Name:

Title:

(Board member or equivalent Senior Management person)

Date:



## Section 6

# Hazard Identification Risk Assessment and Risk Control

## Objective

Suppliers shall use a risk management approach to identifying hazards, assessing the level of risk associated with each hazard and implementing effective controls measures to ensure that risk is either eliminated or reduced to an acceptable level for the organization.

## Expectations

### Hazard identification

Ensure that hazards are identified in a consistent and comprehensive manner.

### Risk assessment

Ensure that the likelihood of a hazard causing harm and the severity of that harm if it did occur, are assessed to calculate an overall risk rating for that hazard.

### Risk control

Implement the internationally recognized hierarchy of risk control measures to eliminate or reduce the level of risk associated with each hazard. Corrective actions shall be used to implement any additional control measures that are necessary to manage the hazard but not yet in place.

### Communication

Risk assessments must be consultative in nature, and the results of risk assessments communicated to all affected personnel.

## Objectives

The objectives of the risk assessments process must be reviewed to ensure that the risk reduction targets established within the safety system are being met.

## Periodic review

The risk management process must be regularly reviewed, particularly after changes to processes, products, materials, people or after an accident, to ensure that it continues to be effective and results in continual improvement within the system.

## Introduction

The supplier must recognize that the ability to identify hazards, assess risk and determine risk controls is the cornerstone of the whole health and safety management system. There is a certain language used as part of this process, and like the learning any new language, it is essential that people are trained in the language so that they know what to look for and what to do at each step in the process.

## Hazard identification

A hazard, simply put, is something that can cause harm. There are many hazards that can cause harm in the workplace, and unless a consistent and comprehensive approach is used to identify hazards then it will not be



possible to manage or control them properly. Other information is also required to be recorded as part of the hazard identification process and this is discussed below.

### Risk assessment

Risk is a factor of how likely a hazard is to cause harm, and the severity of that hazard if it did occur. There are many different methods for assessing risk. In the example contained in this manual, a simple but effective method of risk assessment is shown. Whichever method is chosen, it is important that it can be easily understood by those whom are exposed to the hazards. For certain types of risk assessment, a more detailed question and answer approach may be necessary (e.g., fire and explosion, ergonomics, chemicals, manual handling, etc.) but the outcome of these assessments will still be an overall risk level, such as high, medium or low risk. The Supplier must make every effort to ensure that if any third party organization is conducting risk assessments for their operation that the method adopted is the same, as far

as possible, as the methods used in their own risk assessment process -- this is to ensure that the results of the assessments can be easily integrated into the existing management system and the results compared directly.

### Risk control

The risk control process is a crucial step for managing all hazards and risks. A simple method of looking at risk control under seven different headings is demonstrated. It is essential that all control measures are identified in detail and documented in the relevant risk assessment. A full analysis of risk controls may require input from Engineering/Facilities, from HR (training), from Quality (procedures, etc.), Industrial Hygiene and Occupational Health (monitoring) as well as health and safety. Remember, a safety regulator will assume that if a control is not documented in the risk assessment then it does not exist. In addition, it is very difficult to train people on what controls they need to adhere to if the controls are not documented, and the process

will not be sustainable. Required controls need to be managed in a similar manner to Corrective Actions and Preventive Actions.

It is important to recognize that risk assessment is simply a prioritization step for managing hazards. Because a hazard is a low risk, it does not mean it is any less important than a high risk. It just means that, being reasonably practicable (most organizations do not have unlimited resources to manage hazards), the likelihood of being badly injured is much lower than a high risk hazard. Therefore, extra focus must be maintained on being able to identify hazards and ensure controls are in place.

The goal of the risk assessment process is to eliminate all hazards and risks from the organization. Those that cannot be eliminated need to be managed to reduce the level of risk to an acceptable level. Regular reports should be generated to show the progress made eliminating and reducing hazards and risks across the whole organization.



## Information to help comply with this requirement

Suppliers should use this section of the safety manual to ensure that their process for identifying hazards, assessing risk and determining controls is compliant with the requirements of the safety manual.

Before you begin, it is necessary to decide what areas/activities/jobs/tasks are going to be risk assessed in the organization. A list of all the areas and activities that exist within the organization must be prepared. Some organizations use detailed procedures for Job Safety/Hazard Analysis tasks in place of the specific hazard identification/risk assessment/risk control process, and the hazards and risks described in these documents should be entered as an activity for that particular job in the risk assessments. For example, window cleaning is an activity that can occur in many areas of the site. The risk assessment will identify hazards such as falls from

a height, dermatitis from chemicals, etc.

The risk assessment can be saved as an assessment of the window cleaning “activity,” or a Job Safety Analysis for window cleaning, whichever is preferable. It is important though that the control measures for all hazards identified are documented.

### Part 1: Hazard Identification

Please use the Checklist for Hazard Identification (Appendix 1) to identify all hazards that are present in the selected area.

1. The Supplier must determine what health and safety legislation and best practice guidelines are applicable to their organization. Legislation can be both general (identify and manage all hazards in the organization) and specific (specific regulations to comply with for fire and explosion, manual handling, etc.)

#### 2. Location

Record the location where the hazards are being identified.





### 3. Processes

Give a summary of the key processes in the area.

### 4. Hazard Categories

Review the different hazard categories for each area/activity and use the comments section to record additional information as required.

### 5. Assessors Name, Signature and Date

Please enter the information required.

## Part 2: Risk Assessment and Risk Control

Once the hazards have been identified, the risk associated with each hazard must then be assessed and the respective control measures put in place. Please refer to the Hazard Identification, Risk Assessment and Risk Control Form (Appendix 2).

Please record information about the hazard on the first panel.

### 6. Area/Activity/Job/Task

Select the area, department or activity where the hazard is present. An activity could be a specific job, in which case the hazards associated with that job must be clearly identified and assessed, sometimes referred to as a Job Safety Analysis.

### 7. Responsible Person

Enter the name of the person responsible for the area/activity where the risk assessments are being conducted.

Note: the risk assessor can help to identify hazards in a particular area, but it is essential that the responsibility for managing hazards in the area/activity rests solely with the manager of the area. The manager needs to ensure that all hazards are identified, risk levels assessed and controls put in place as required. The manager must also ensure hazards and adhere to the control measures, etc.

### 8. Assessment Completed By/Job Title

Identify the name(s) of the person who is completing the Risk Assessment and their position within the organization.

### 9. Assessment Date

Enter the date on which the assessment was completed.

### 10. Notes

Enter any additional notes to support the hazard identification process.

### 11. Hazard Number

Enter a unique identification number for the hazard.

### 12. Hazard Description

Enter a description of the Hazard

Note: from the Checklist for Hazard Identification, identify the hazard that is present and describe it so that a person who is not familiar with the area or task would understand clearly what the hazard is.

### 13. Consequence

Enter a description of the consequence (i.e., potential harm) that the hazard could cause.

Note: the potential harm can be simply described as personal injury, illness or death. Some organizations include more additional descriptors, such as significant equipment damage, etc.

### 14. Hazard Timing

Please identify the timing of the hazard. It is important that you do not consider just the hazards that you see before you on the day that you are completing the assessments, but also include the hazards that may be present under non-routine conditions, such as start up, shut down or maintenance activities.

Note: the Hazard Timings typically include Routine, Non-Routine and Emergency. Routine would indicate that the hazard is present on a day to day basis, while non-routine means that the hazard is present only during operations such as start up, shut down or maintenance.

If the Hazard selected is a potential emergency, e.g., Fire, Spill, Explosion, Gas Leak, etc., then the timing of the hazard should be set to "Emergency." The benefit of this action is that it will be possible to analyze all the risk assessments by the emergency timing, to see all of the potential emergency situations across the site, and ensure that each of these situations can be related back to the appropriate emergency response procedures.



### 15. Personnel at Risk from the Hazard

Identify the person(s) at risk of harm from the hazard.

Note: the Personnel at Risk should be identified by employee type rather than name, e.g., use terms such as Employees, Visitors, Contractors, Members of the Public, etc.

### 16. Current Control Measures

Identify all of the current control measures that are currently in place to manage the particular hazard being assessed. The following hierarchy of control measures must be considered to ensure that all controls are identified:

- **Eliminate** - is it possible to eliminate the hazard altogether? For example, lead has been removed from most forms of petrol and paint, reducing the hazardous impact of lead on human health.
- **Substitute** - is it possible to substitute the hazard with something less hazardous? For example, many solvent based paints have been substituted by less hazardous water based (emulsion) paints.

- **Engineering Controls** - identify all engineering controls that are present which can reduce the level of risk. These include using machine guards, isolation or enclosure of hazards, local exhaust ventilation, mechanical handling methods, protective barriers, etc.

Note: any preventative maintenance applied to these engineering controls should be identified in the Monitoring section below.

- **Administrative Controls** - identify all administrative controls that are in place to control the hazard. These include related procedures, records and signage.

- **Training** - identify all training that is provided in relation to the hazard, e.g., if the hazard is manual handling, mention that manual handling training is provided, etc.

- **Monitoring and Measurement** - identify all related monitoring and measurement tasks that are undertaken to control the hazard such as audits, housekeeping inspections, calibration and maintenance activities.



If occupational health or industrial hygiene monitoring work is undertaken, e.g., chemical exposure monitoring, hearing tests etc, then this information should be documented here.

- **Personal Protective Equipment (PPE)** – identify all appropriate PPE that is required to control the hazard, e.g., safety boots, safety eyewear, etc.

These controls are control measures that already exist in the workplace. Please note, it is NOT necessary to add information into every control box for every risk assessment. A blank answer box can simply mean that the control was considered but no action was possible, etc.

### 17. Risk Assessment

Having described the hazard in detail, and identified the control measures that are currently in place, it is now necessary to identify the risk level associated with each hazard.

Risk, quite simply, is a combination of how likely something is to cause harm, and how severe that harm would be if the event happened. A simple risk assessment is presented here, but it is up to the individual supplier to adopt a method that is most suitable for their own requirements.

a) **Likelihood Categories** - the following qualitative likelihood categories could be used:

<u>Category</u>	<u>Definition</u>
High (H)	Event has occurred or is expected to occur.
Intermediate (I)	Event may occur once during lifetime of site.
Low (L)	Event is not expected / unlikely to occur.

Site experience of relevant process owners and employees should be used when allocating the frequency categories.

b) **Severity Categories** - the following qualitative severity categories could be used:

Significant (S)	Potential fatality or significant equipment damage.
Major (M)	Serious personal injury or equipment damage.
Minor (N)	Minor personal injury or equipment damage.

c) **Risk Categories** - the likelihood and severity categories are combined to predict the qualitative risk category associated with each hazard, using the following matrix.

Where:

- 1 Indicates a HIGH occupational risk category, where remedial work may be required as soon as possible.



Severity				
Likelihood		Significant (S)	Major (M)	Negligible (N)
	High (H)	1	1	2
	Intermediate (I)	1	2	3
	Low (L)	2	3	3

2. Indicates an MEDIUM occupational risk category, where remedial work may be required in the medium term.
3. Indicates a LOW occupational risk category, where remedial work may be required in the long term.

Note 1: there are many different methods of conducting a risk assessment. This simple matrix model is used to illustrate a simple method that should be easily understood by any person in the organization. The risk assessment step should be

just viewed as a prioritization step within the process of controlling risk. It does not mean that a low risk hazard is any less important than a high risk hazard. It simply recognizes the fact that a high risk hazard is more likely to cause more serious harm sooner than a low risk hazard. It is not practicable to try to reduce or eliminate all and risks at the same time. The organization which applies the risk assessment approach will be able to clearly demonstrate that it is doing all that is reasonable practicable to control the hazard, given the generally limited availability of resources in most organizations, be they financial, human, technical, etc.



Note 2: for some hazards, a more detailed risk assessment can be carried out using a question and answer based template approach. These questions and answers are usually determined by specific legislative requirements, and examples of hazards using this more detailed risk assessment approach are ergonomics, manual handling, fire and explosion, pregnancy, electricity, chemical and biological agents. The output from the question and answer approach will still be an overall risk classification such as high, medium and low, depending on the information provided during the assessment.

#### 18. Acceptable risk

In certain situations it may be determined by management that the risk level has been reduced as far as possible. In this case, the "Acceptable" box can be ticked to indicate that no further work will be undertaken to reduce the risk level for the particular hazard.

Note: it is suggested that in the early phases of developing a management system that this option is not exercised.

#### 19. Additional Control Measures Required (if any)

Any additional control measures that need to be put in place to reduce the risk should be identified in this section. The Corrective and Preventive Action form could be used to manage these actions, or a simple task management system that records the task, and assigns it to someone along with a timeframe for completion will also suffice.

Note: In some cases the control measures may refer to an ongoing or planned project which is already identified in the Safety Objectives, Targets and Plans, and a simple reference should then be included from the required controls section to the related plan for traceability purposes.

#### 20. Responsible Person/Date

Enter the name of the person responsible for completing the required control measure and the expected completion date for the task.

21. The methodology outlined in this section is designed to be compliant with the OHSAS18001 international health and safety management

system standard. There are many different risk assessment techniques available, and the supplier has to choose a methodology that best suits their own requirements. It is recommended that whatever process is adopted, the risk control section follows the hierarchy outlined in this safety manual.



# Objectives, Targets and Plans

## Objective

Suppliers shall ensure that Objectives, Targets and Plans are documented at relevant levels and functions within the organization to ensure that the objectives set out in the health and safety policy are achieved, and that there is continual improvement of the safety management system.

## Expectations

### Organization wide

Establish objectives, targets and plans at relevant functions and levels within the organization as part of the safety system.

### Resources required

The relevant resources required to achieve the objective must be clearly identified along with the timeframe for completion of the plan.

### Deliverables

Ensure that the objectives, targets and plans are measurable, where practicable, and consistent with the health and safety Policy, including the commitment to compliance with legal and other requirements, as well as to continual improvement.

### Legal requirements

Objectives, targets and plans must take into account the legal and other requirements pertaining to the organization, and the outcomes of the risk assessment process.

## Considerations

The different technological options, financial, operational and business requirements as well as the views of interested parties must be considered when setting the objectives.

## Periodic review

The objectives, targets and plans must be reviewed and amended regularly, and the overall process reviewed to ensure it continues to be suitable and effective in leading to continual improvement within the management system.

## Introduction

The objectives, targets and plans represent the work that will be undertaken as part of the health and safety management system over the next 3 to 5 year period. The information in this section is derived mainly from the health and safety policy and the risk assessment process.

While the terminology used here reflects that used in the international standards, this section is really the project management section on the safety system. It is used to identify the different safety plans (projects) that are underway and provides a process for easily reviewing these plans. Like all other action tracking systems, the information eventually filters down to a piece of work that must be completed by some person within a specific timeframe.

Suppliers should view the objectives, targets and plans in two very positive ways. First, it provides a very easy to use format for ensuring that all



safety related work can be managed more effectively. Second, it acts as the database for all of the successful work that has been achieved reducing hazards, risks and accidents, etc., over the past few years. By reviewing all of the completed plans within the system, it may be easier to help justify any additional financial investment that is required for safety in the future.

There may also be other projects ongoing within the organization that were not initiated for health and safety reasons, but which do have a health and safety benefit. These projects should also be reflected in this section if there is a potential health and safety benefits from the work.

It should be remembered that it is not necessarily a non-conformance if a safety plan is not completed on time. The timeframe can be readjusted to reflect the new timeframe, as long as a justification is given as to why the target date was not met. A non-conformance would arise if it was found that only some of the safety plans were being captured within this section, or if there was very poor management of the process.

Some management systems refer only to objectives and plans, and that is acceptable, but if the company also operates an environmental management system compliant

with ISO14001, then targets will also need to be included. As many health and safety systems are ultimately combined with environmental management systems, they are shown as objectives, targets and plans in this manual.

## Information to help comply with this requirement

Suppliers should use this section of the safety manual to ensure that objectives, targets and plans are managed properly in the organization.

The objectives are very global in their scope, while the targets break down the overall objective into a number of components. Each target in turn will have very specific plans (or projects) that will highlight what work will be undertaken, who will undertake the work and in what timeframe. Please see Appendix 3 for an example of how to record objectives, targets and plans.

An example of some objectives that an organization might have include:

- 1.0 General Safety Management.
- 2.0 Electrical Safety Improvements.
- 3.0 Asbestos Management.
- 4.0 Occupational Risk Assessments.
- 5.0 Noise Management.

- 6.0 Ergonomics.
- 7.0 Safety Awareness and Training.
- 8.0 Employee Welfare.

For each of these headings the following information is outlined:

- **Objective**

A general summary that provides a description of the work to be undertaken.

- **Rationale behind objective**

It should explain why the objective is on the system (e.g., required by the policy, or a major project identified in the risk assessments).

- **Targets**

These are more specific steps that will be taken to achieve the stated objective.

- **Plans to achieve targets**

More specific detail about the work that will be completed to address each target. The plans should be smart, i.e., measureable, attainable, realistic and timely.

- **Timescale**

The timeframe for completion of the plan.

- **Persons responsible**

The job title and/or name of the person to whom the plan is assigned.



## Section 8

# Resources, Roles, Responsibility, Accountability and Authority

## Objective

Suppliers shall ensure that the safety management system is properly implemented through the provision of adequate resources, including human, financial and technical resources. All personnel shall be aware of the role they play in the safety system and the commitment required from them.

## Expectations

### Roles and Responsibilities

Establish clear roles and responsibilities for all employees within the SSMS.

### Communication

Ensure that all roles are communicated and understood and that everyone understands how they contribute to the overall objectives of the safety system.

### Resources

Ensure that adequate resources are provided to implement, operate and maintain the safety system, and that there are suitably trained personnel available as backup for key safety positions.

### Periodic review

Periodically review all safety roles and responsibilities.

## Introduction

In organizing for an effective safety management system, one of the principles is that all employees have roles and responsibilities for adhering to the requirements of the management system and the safety policy in the performance of their tasks. The SSMS must provide the resources essential to the implementation and control of the management system. The responsibilities of all personnel and functions must be documented, such as responsibilities for the following:

- Top Management Representative.
- All Managers.
- All Employees.
- Safety Committee.
- Safety Representatives.
- Designers.
- Managing Contractors.
- Equipment Maintenance and Calibration.
- Facilities Management.
- Dangerous Goods Safety Advisors (transport of dangerous goods by road, rail, sea and air).





- Managing Radiological Sources/Equipment.
- Purchasing Materials.
- Work Permit Systems.
- Health and Welfare.
- Housekeeping and Maintenance of Access/Egress Routes.
- Maintenance of Emergency Plans.
- Policies relating to Bullying, Harassment, Travel, Substance Abuse and Absence due to Sickness.
- Site Security.

Some specific responsibilities are outlined below. An organizational chart should be used to demonstrate the manner in which safety is integrated into the overall management structure of the company.

Accountability means ultimate responsibility, and the person with ultimate responsibility in the case of the SSMS is the person who signs the safety policy. The representative for the SSMS must be a member of the senior management team, and a person should also be appointed as a deputy to provide cover during absence periods. There must be no ambiguity in any of the defined roles and responsibilities, particularly where these could create conflict between health and safety issues and operational considerations. Such instances should allow for escalation to a higher level of management where appropriate.

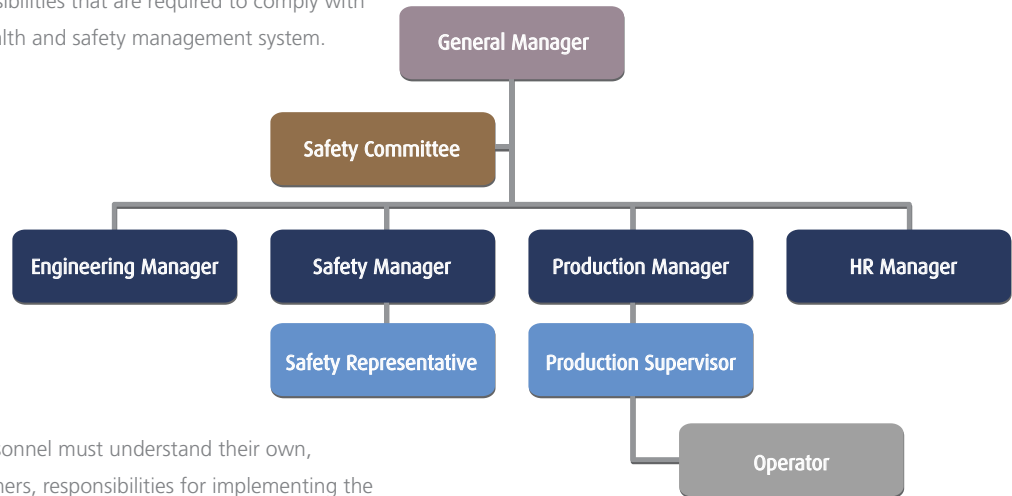
An effective method of ensuring that the safety is well managed and adequately resourced is to assign different sections of the system to different managers. For example, the most senior manager could be assigned the sections relating to Health and Safety Policy and Management Review. The Human Resource Manager could be assigned the sections on Competence, Training and Awareness as well as Resources, Roles, Responsibilities, Accountability, and Authority. The Facilities Manager could be assigned the section on Monitoring and Measurement. The Quality Assurance Manager could be assigned the section on Document Control. It is important that the operation of the whole management system is not dependent on one expert within the organization, as the departure of that person may result in the system not functioning correctly.

Managers in particular should provide visible evidence of their commitment to the health and safety system. Such evidence could come in the form of regular inspections and visits to the work area, participation in incident investigations and safety committees, acknowledging good safety performance and ensuring that all safety related corrective and preventive actions are managed effectively.



## Information to help comply with this requirement

The organization chart must include the roles and responsibilities that are required to comply with the health and safety management system.



All personnel must understand their own, and others, responsibilities for implementing the SSMS. The following are examples of key safety responsibilities within an organization:



## The Managing Director has ultimate responsibility for:

- Establishing an effective policy for health and safety at work.
- Implementing the safety and related policies.
- Effective implementation of, and ultimate responsibility for, the safety management system.
- Appraisals of the effectiveness of the safety policy, ensuring any necessary changes are made.
- Ensuring that the safety manual is up to date and is understood by all managers.
- Maintaining a good standard of housekeeping across the site.
- Reviewing absences due to accident or injury at work in conjunction with the Safety Manager.
- Ensuring that adequate resources of time, personnel and finance are available for the effective implementation and ongoing maintenance of the SSMS.
- Delivering a statement to the media on safety issues as required.
- Conducting the Management Review meeting at least once per year.

## Managers

- Establishing and communicating safety rules and standards to all employees, contractors and visitors.
- Providing appropriate resources, tools and training for employees.
- Awarding contracts using safety health and environmental criteria.
- Conducting and document safety meetings.
- Conducting inspections and tours regularly to maintain facilities in a safe condition.
- Correcting unsafe acts and conditions promptly.
- Correcting unsafe conditions promptly
- Maintaining emergency plans and conduct regular emergency drills.
- Investigating incidents, near misses, dangerous occurrences, spills and other events and promptly carrying out corrective actions.
- Reviewing organizational and employee safety performance periodically, and provide feedback.



## Employees

- Being aware of, and adhering to, the company safety and related policies and their requirements.
- Adhering to safety procedures relevant to their areas.
- Communicating safety rules and standards to co-workers and other third parties.
- Being aware of the hazards and the risks associated with their work activities.
- Correcting or reporting unsafe work or hazards.
- Maintaining knowledge of safety requirements, including emergency response actions.
- Participating in safety meetings.
- Operating, inspecting and maintaining facilities in a safe condition.
- Reporting injuries, spills, unsafe condition, near misses, hazards and incidents immediately.
- Assisting in incident investigations as necessary.
- Ensuring that all accidents, incidents or dangerous occurrences are reported immediately.
- Ensuring that defective equipment, premises or systems of work that pose a risk to health and safety are reported immediately.
- Attending any required safety training and awareness sessions.
- Cooperating on all safety related matters.
- Not engaging in improper conduct or other behavior that is likely to endanger his or her own safety, health and welfare at work or that of any other person.
- Using, maintaining and correctly storing suitable appliance, protective clothing, convenience, equipment or other means provided for securing safety, health and welfare.
- Taking reasonable care for his/her own safety, health and welfare and that of any other person who might be affected by his/her acts or omissions.
- Being aware of the location of spill kits and fire extinguishers in their working area, evacuation routes, exits and assembly areas and immediately evacuating the building on hearing the emergency evacuation siren.



## Safety Representative

- Ensuring that the reports on the performance of the OH&S management system are presented to management for review, and used as basis for improvement of the SSMS.
- Making representations to management on health and safety matters.
- Conducting safety inspections.
- Investigating potential hazards or complaints.
- Investigating accidents and dangerous occurrences.
- Making oral or written representations to Safety Inspectors as required.
- Receiving advice and information from Inspectors.
- Accompanying an Inspector, if requested.
- Complying with all safety rules, policies, procedures and current legislation.
- Reporting injuries, spills unsafe acts and conditions, near-misses, and incidents immediately to the person in charge.
- Complying with the Permit to Work system.
- Providing a safety statement.
- Ensuring that MSDs are available for all hazardous materials.
- Seeking prior approval of chemicals before bringing them on site.
- Providing a method statement as required.
- Ensuring that all equipment is suitable for use.
- Holding pre-job meetings and other safety meetings during the job.
- Conducting regular tool box safety talks.
- Assisting in incident investigations as necessary.
- Ensuring insurance cover is adequate.

## Contractors

- Ensuring that contractor, employees and any subcontractors are trained in site safety rules and competent to perform their job.

These key responsibilities must be communicated to all individuals. They outline performance expectations that should be used later in performance appraisals.



## Section 9

# Competence, Training and Awareness

## Objective

Suppliers shall ensure that all their employees are competent to perform the tasks assigned to them, to ensure safe, reliable operations.

A defined process for identifying training needs shall be documented, and a training plan for all planned and completed training kept up to date. Objectives shall be documented for each training course, attendance records maintained and course evaluations completed to ensure the training was effective. The process for managing safety related training shall be assessed and updated regularly.

## Expectations

### Training Needs

A defined process for identified training needs shall be documented, based upon current job descriptions, risk assessments, required competencies and other relevant sources.

## Competency

Competency requirements shall be clearly defined for each job, and assessments of competency kept up to date. Trainers must be selected on the basis of competence and their ability to utilize proper teaching methods.

## Training plan

A training plan shall be developed that clearly illustrates the annual training plan for all employees. This training plan shall cover corporate training, specific site level training and also personal training requests. Employees must attend such training as is required, and adequate cover provided during such periods to prevent disruption to business activities. The training plan shall be approved at the relevant level in the organization. The training plan shall also be costed.

## New and transferred employees

Assessments should be made to verify that all new and transferred employees are suitably qualified and medically fit to perform their assigned tasks.



## Safety training

Safety training must be provided to all employees to improve safety behavior and attitudes and ensure all work is conducted safely. Induction training must be completed for all new and transferred employees, as well as contractors and visitors. The safety training program must ensure conformance with documented policies and procedures and the requirements of the SSMS. Employee training records must be kept up to date.

## Roles and responsibilities

Refresher training must be provided at the appropriate frequency to maintain the required levels of competence and safety knowledge among employees.

## Refresher training

Refresher training must be provided at the appropriate frequency to maintain the required levels of competence and safety knowledge among employees.

## Reviews for effectiveness

The safety training program must be periodically reviewed for effectiveness and improvement.

## Introduction

Suppliers should use this section of the safety manual to ensure that training and competence are managed properly in the organization. There are two main parts covered in this section:

### Part 1

#### Identification of Training Needs

To begin the process, the supplier will need to clarify what jobs are being performed in the organization and identify all of the tasks associated with each job. It is then necessary to identify the different sources within the SSMS that can help determine training requirements such as risk assessments, versatility charts, incident investigations, change management and legal requirements. All of this information must then be collated to help plan the required training courses.

### Part 2

#### Management of Training Programs

Once it has been determined which training courses are necessary, the management of training information becomes critical.

Course objectives must be established for each training course, attendance records maintained for all employees, and course evaluation forms completed, to verify the effectiveness of the training provided.

## Information to help comply with this requirement

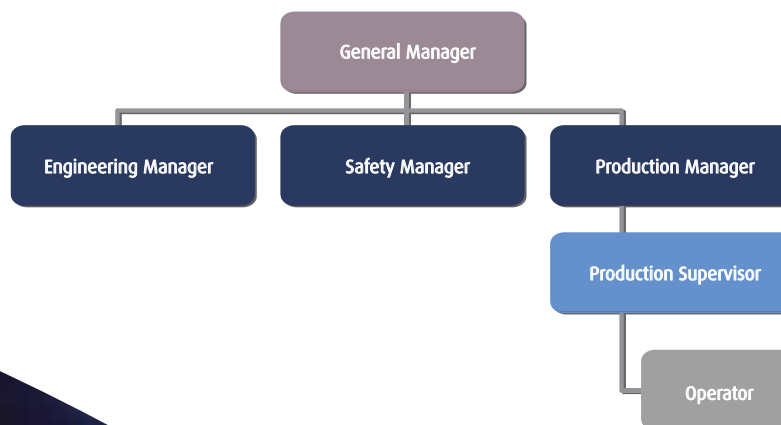
### Part 1 Identification of Training Needs

Determine what jobs are being done in the organization:

1. Identify and make a list of all JOB TITLES that exist in the organization.

For example, these could include General Manager, Engineering Manager, Safety Manager, Process Engineer, Warehouse Supervisor, Operator, etc.

2. An ORGANIZATION CHART must be used to show the overall structure of the management system, including JOB TITLES.



3. Develop a JOB SPECIFICATION (or Job Description) for each JOB TITLE identified.

### JOB SPECIFICATION FORM

**JOB TITLE:**

Fork Lift Truck Operator

**JOB DESCRIPTION:**

Provide a description of what the job entails in this section...

**EDUCATION REQUIREMENTS:**

Give details of the minimum education requirements for this job, e.g., a certification of completion of secondary school, a Technical Diploma or Degree, etc.

**EXPERIENCE REQUIREMENTS:**

Ability to operate a machine, PC literacy, etc.

**TRAINING REQUIREMENTS:**

Recognized training course for operation of a fork lift truck.

\* Some organizations include a section on the necessary skills for the job.

4. Identify all TASKS that are associated with each JOB TITLE. Examples:

- Checking oil and diesel levels.
- Completing pre-use inspection checklist.
- Preparing daily reports on load movements.
- Operation of the lifting equipment.

In most cases, there should be a written work instruction or Standard Operating Procedure for each job being done.

Identify the different sources that determine training requirements.

5. Review the training controls identified in the Risk Assessment process for all areas/activities/jobs/tasks.

The risk control section of the risk assessment MUST have a section to identify training requirements that may be required. By reviewing the risk assessments, it is possible to see what training needs to be done to control workplace hazards.

6. Identify any training requirements that may be required as a result of changes to legislation and standards.





Risk assessments are driven by legislative requirements. The organization needs to be aware at a minimum what legislation exists and be able to demonstrate compliance.

7. Develop Versatility (Skills) Charts to help identify training needs.

When the requirements have been defined for a particular job, it is necessary to ensure that all

of the employees performing that job meet the specific requirements necessary to demonstrate competence. One method of ensuring that this happens is to use Versatility Charts (sometimes referred to as a skills chart). These are simple charts (please see example below) that associate individual employees doing specific jobs with the tasks associated for each job, so that it can be determined for each employee if more training is required or not.

### Versatility Chart

Department .....

Name	Induction Complete	Lifting	Open Valve	Operate Centrifuge	Take Samples	Mixing Chemicals	SOP98 Centrifuge	SOP11 Filtration	Operation of blowers	Operation of boilers	SOP 118 PH adjust	SOP 27 Nutrients
Employee 1	✓ 1	□	■	□	□	□	□	□	□	□	□	□
Employee 2	✗ 0	■	■	■	□	■	■	■	□	■	□	■
Employee 3	✓ 1	□	□	□	■	■	□	■	□	□	■	■
Employee 4	✓ 1	■	■	□	■	□	■	■	□	■	□	■
Employee 5	✓ 1	□	□	■	□	■	□	■	■	□	■	□
Employee 6	✓ 1	■	■	□	■	■	□	□	■	□	□	■

No Knowledge at all    
  Basic Knowledge    
  Some experience    
  Competent under Supervision    
  Fully Competent



8. Identify training needs required due to the Change Management process.

Training will be required whenever there is a change in the organization. These changes can arise due to the introduction of new chemicals, or changes to a production process, materials, product or personnel in an area.

9. Identify training required as part of the Incident Investigation process.

Incidents (Accidents and Near-Misses) occur when there has been a deficiency in some part of the risk assessment (the hazard was not identified, the risk control was not identified or was not being managed properly, etc.).

10. The frequency of recommended/required retraining must be defined for each training course.

11. Consider requests from employees as part of the training needs assessment.

12. Training requirements must be linked (feeding information both ways) to performance reviews.

13. The training plan should consider organizational (i.e., corporate), site (local) and personal training requirements.

14. The training process must clarify the roles and responsibilities of employees within the safety management system, including emergency preparedness and response requirements.

15. The safety training must ensure conformance with documented policies and procedures, and the requirements of the safety management system; as well as the potential consequences of departing from documented procedures.

16. All new employees, contractors and visitors must receive safety training as part of their overall induction program. Some organizations use employee handbooks to help the new employee learn about the company. Appendix 4 shows the Saudi Aramco safety orientation booklet for all new employees, contractors and visitors.

#### Planning the training courses:

17. The training plan must show all the PLANNED training that will be conducted and ACTUAL training that has already been completed for the year. It should also include information such as:

- The proposed DATE of the training course.
- The identity of the different GROUPS of EMPLOYEES and/or EMPLOYEE NAMES of those requiring training.
- Whether the training is internal or external.
- The NAME of the FACILITATOR/ FACILITATING BODY.

18. An assessment should be completed to ensure that the trainer has the relevant experience and competence to deliver the particular training course.



## Part 2 Management of Training Programs

Management of training information:

19. Course OBJECTIVES should be documented for each training course.

If there are no clear objectives, it will be very difficult to determine if the training course was effective or if the quality of the training provided or the instructor were sub-standard.

20. The OBJECTIVES of the training course should identify:

- a) Title of the course.
- b) Name of course facilitator and company.
- c) Date and duration.
- d) Location.
- e) Benefits of the proposed training.
- g) Expected behavioral changes.

The following is an example of a form that could be used to document Course Objectives for each training courses.

### Company Name

### Course Objectives

Date ..... Number of Days .....

Course Title: Chemical Handling and Awareness

Trainer ..... Company .....

Training objectives of the Course

Upon completion of the course the participant will be able to:

1. Understand the different Chemical hazard symbols
2. Understand a material safety data sheet
3. Properly handle Chemicals (caustic) used in work area

Benefits to the Company

1. Reduce risk of Accidents while working with or near Chemicals





23. A course evaluation form, which is linked to the course objectives, should be completed by all attendees to assess the course and the Facilitator/Trainer.

The following is an example of a form that could be used to record an evaluation of a training course.

24. An employee training record should be developed for each employee to identify the training that is required for the particular job(s), the required frequency of that training, the training that has been received and the planned training.

25. Evaluations of a training course should also be conducted after 3 and 6 months following the training. The following example highlights the reason why this training process is important.

A company had a problem getting employees to wear appropriate Personal Protective Equipment (PPE) when handling chemicals. A specific training course was delivered to teach employees about the dangers of handling the chemicals and the importance of wearing appropriate PPE, and the attendees evaluated the training course to say that they understood the content and they were happy with the course. The employees used PPE for the first few weeks after the training, but after 3 months it was found that some employees were not wearing PPE again. Without a proper process for managing training, it would be assumed that the employees did not understand the training material. However, the employees had evaluated the course saying that they were satisfied. The employees were also happy with the course tutor, according to the evaluations, and the tutor was assessed prior to starting the course to ensure he was competent. Using the information gathered, it may be possible to see that the real reason why employees have returned to their old bad habits is that they are not being supervised, and a different training course may be necessary to address this issue. Behavioral change is often a very important training outcome, and for this reason the effectiveness of certain training courses should be reevaluated periodically after the initial course.

## Company Name

### Training Evaluation Form

Course Title: Chemical Handling and Awareness

Name ..... Signature .....

Department .....

Training Date ..... Course Number .....

Trainer ..... Company/Department .....

---

Please tick the appropriate box using the code below to indicate how well you understood the training provided on each topic

1. Need further training on this
2. Satisfactory - several points need clarification
3. Fairly well - a few points need clarification
4. Very well - minor points could be clarified
5. Completely understood

Title of Topic (from course objective Document)	1	2	3	4	5
1. Understand the different chemical hazard symbols				✓	✓
2. Understand a material safety data sheet				✓	
3. Properly handle chemicals (caustic) used in work area		✓			
4. N/A					
5. N/A					

Any other comments?

Signature of Trainee ..... Date .....

Signature of Trainee ..... Date .....

# Communication, Participation and Consultation

## Objective

Suppliers shall implement internal and external channels of communication to communicate safety related information. These channels will ensure effective communication processes with all relevant parties in a timely manner, including management, employees, contractors, visitors, customers, suppliers, external agencies, any other stakeholders and the public. Employees shall be consulted with, and actively participate in, the implementation of the safety system.

## Expectations

### Communications channels

Identify and manage the necessary internal and external communication channels required to promote and maintain a safe workplace for all employees, contractors and visitors.

### Management reviews

Perform regular management reviews to examine the effectiveness of the different communications channels, identify and implement opportunities for improvement.

## Introduction

Suppliers must encourage participation in good health and safety practices and support of the policy and related objectives by those affected by its operations.

The communication processes should reflect the flow of information within and outside the organization, but must ensure that information is provided, received and understood by all interested parties.

The safety system in general and the risk assessment process in particular, involves seeking acceptable outcomes to issues through the exchange of information and views. This may involve interaction with diverse groups affected by the company's activities, such as employees, their representatives, contractors, temporary workers, neighbors, visitors and external agencies.

This section of the manual highlights particular channels of information that should be considered as part of the safety system.



## Information to help comply with this requirement

Suppliers should use this section of the safety manual to ensure that their communication, participation and consultation process is compliant with the manual's requirements.

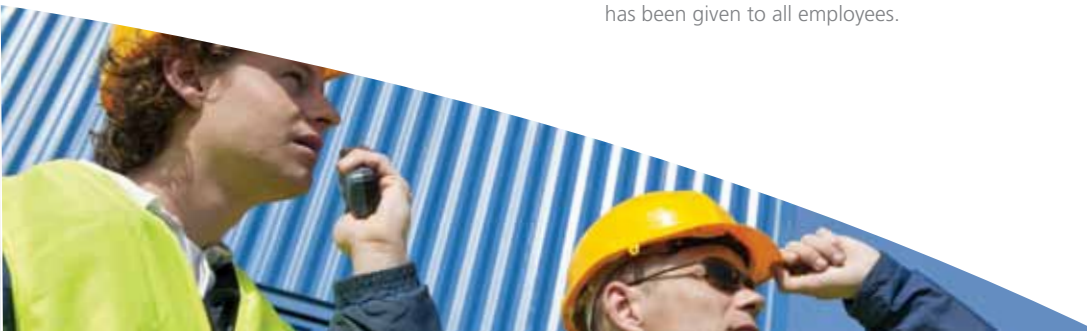
Different communication channels must be established to ensure that, where necessary, both internal and external communication systems are in place to support the management system. These channels must demonstrate the company's commitment to safety, ensure that relevant information is communicated as appropriate and that the profile of the company's safety commitment is enhanced.

a) Internal communications can take place through a number of channels.

Examples of these can include:

- The Health and Safety Policy, which must be communicated to all employees and be prominently displayed.
- The safety manual, which is available to all employees, who have been made aware of the content of this manual. The manual specifies roles and responsibilities for health and safety within the company, including channels of communication and management of the SSMS.
- A company handbook which is available and has been given to all employees.

- Results of inspections and audits which are communicated promptly to those responsible for a particular area.
- Examples of the regular management and operational meetings where safety issues may be raised and information disseminated. It is important that minutes of these meetings are available. A Management Review meeting of the SSMS must be conducted at least once per annum.
- Safety awareness is increased, whenever possible, through the use of Newsletters, and the prominent display of health and safety notice boards available throughout the facility. Other vehicles of internal communication include information screens, e-mails and memos.
- Encouragement of employee involvement. To encourage employee participation in safety improvements, an employee suggestion box could be made available to capture suggested improvements and innovations. All inputs received should receive a response from management, irrespective of whether the action will be undertaken or not.
- SSMS documentation, which must be controlled to ensure that only the most current version of documents is available at the point of use.
- Safety Representative(s), who should be appointed in large organizations to act as a contact with management in relation to safety issues in the workplace. A Safety Committee should also be assembled from members of the



management team and the employees. The committee's purpose is to meet and discuss safety related issues on a regular basis. Minutes from these meetings should be circulated to department managers and other members of the management team as appropriate, and progress reviewed at the next Safety Committee meeting.

- Hazard identification and risk assessments, where practicable, must involve employees. These risk assessments must be effectively communicated to all interested parties, including management, employees, contractors, customers, suppliers, government agencies, any other stakeholders where applicable, and made available locally in each appropriate area, along with other relevant safety related information.
- Incident investigations (accidents and near misses), which should be completed in a timely manner, and any experiences from such events communicated to all relevant parties to prevent further injuries and losses.
- Tool box talks, which are an important way of communicating safety related information and themes among employees. A program of regular tool box talks should be developed where possible.

- Personal contact with employees, which should be accomplished by visiting work areas and talking with employees. A rotation system could be established so that all managers walk the facility over a specified time period.
- The effective and timely communication of information that may need to be passed on between different employee groups, e.g., at the end of a shift, or on handover from operations to maintenance.
- Safety Objectives, Targets and Plans, which are used to detail the (typically five-year) plan for safety related work within the organization. These should be used to demonstrate the continual improvement of the SSMS. Some of these projects may be related to, and where possible, correlated with the internal performance management system.
- Effective training, which is an important control measure for managing hazards, while part of safety training, is an integral part of the management system.
- The potential consequences of failing to comply with the safety management system,





which must be clarified. Every effort must be made though to develop a positive safety culture within the organization, so that employees will not fear any reprimand for complying with the requirements of the safety system, or trying to improve safety in general.

b) External communications can take place through a number of channels.

Examples of these can include:

- The control of contractors, which should clearly mention any procedures for control of contractors, including site inductions, work permits, contractor site regulations, etc.
- Ensuring that contractors and other third parties are consulted about any changes that are being undertaken which could affect their health and safety.
- The control of visitors, with clear mention of any procedures for registering at reception, issue of visitor passes, requirements for signing to indicate that they have read and understood relevant safety requirements, the need to be accompanied at all times, etc.

- External safety related communications to and from the customer which should be documented, with responses made in a timely manner as appropriate. It may be useful to maintain a simple log of the key communications so that the status and location of this information can easily be obtained at any time.

- The identification of the person responsible for all reporting/communication with the relevant parties and authorities (e.g., the customer, Health and Safety regulator, the media, the public).

- Procedures that must be in place to deal with emergency preparedness and response.

- Timely and appropriate communication to customers including any information that may need to be received from a third party, e.g., after the completion of a major project (Process Change).

c) Participation and consultation.

The participation of workers in the SSMS must be ensured by:

- Engaging in effective communication as outlined in this manual section.

- Encouragement of participation in suggestions for health and safety improvement.

- Appropriate involvement in hazard identification, risk assessments, method statements and determination of controls.

- Appropriate involvement in incident investigation.

- Involvement in the development and review of work instructions, safety policies and objectives.

- Consultation where there are any changes that affect their health and safety.

- Representation on safety matters, including the appointment of their safety representative(s).

- Ensuring there is no fear of any reprimand for complying with the requirements of the safety system or trying to improve safety in general.

# Operational Controls

## Objective

Suppliers must ensure that all of the operational controls (i.e., procedures) required as part of the SSMS are clearly identified in this section.

## Expectations

### Change management

Ensure that change management procedures are developed to manage risk associated with new projects and other changes (e.g., people, product or process).

### Supplier and contractor control

Develop a comprehensive program for managing all suppliers and contractors, from selection through to onsite activities and overall performance evaluations.

### Work permit

Review the permit to work system to ensure it is working effectively.

### Personal protective equipment

Require all personnel to sign for personal protective equipment and lifting equipment that is issued to them.

### Hazardous material

Manage all hazardous materials properly to prevent injury to man and the environment.

### Waste management

Ensure that hazardous and non-hazardous waste is correctly identified, handled, stored and disposed off.

### Maintenance and calibration

Perform regular maintenance and calibration on all required activities, particularly those identified as safety critical.

### Rules and work practices

Document and train personnel in relation to site rules, rules for contractors and good work practices.



### Welfare facilities

Provide adequate welfare facilities for all employees, contractors and visitors.

### Inspections

Document all regular housekeeping inspections and ensure that the corrective action system is used to address any issues identified.

### Environmental risk assessment

Consider the environmental aspects and impacts of the whole operation.

### Periodic review

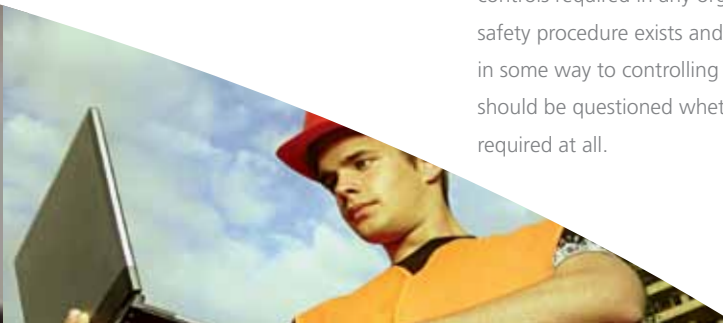
Periodically review all operational controls to ensure that they are suitable and effective and lead to continual improvement of the safety system.

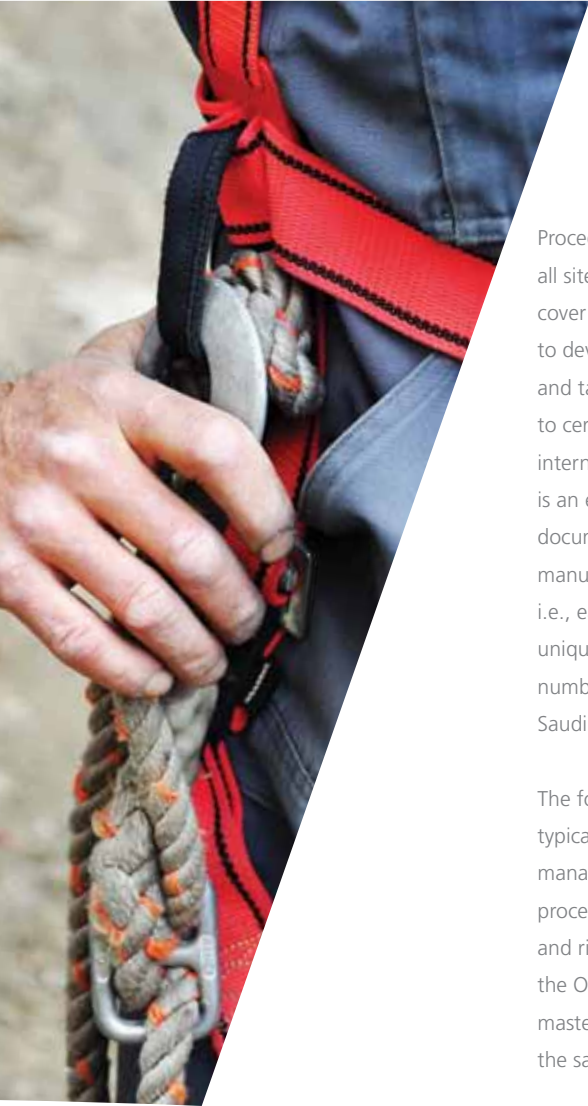
## Introduction

Every organization has safety procedures, but many do not realize that procedures are in fact a control measure (Administrative) within the risk assessment process, and that all procedures represent a form of risk control. Procedures are indeed a very important control measure for managing hazards, but they are just one form of control measure (along with training, engineering, monitoring, etc.).

One of the benefits of a safety system is that it requires different types of data to be pulled together into one particular section for easy management. For example, the section on Competence, Training and Awareness addresses all of the information pertaining to training (derived mainly from the risk assessment process). Similarly, Monitoring and Measurement requires that all of the monitoring and measurement activities are collated into a master list so that they can be referred to quickly, and a route map is provided to let anyone know where to find the relevant data (derived mainly from the risk assessment process). In a similar fashion, this section of the manual requires that all of the required SSMS procedures are identified in one place (with the exception of those procedures that are specific to other sections of the manual, e.g., training and audit, etc.). The alternative is to trawl through the whole safety system and the risk assessments and prepare a separate list of safety related procedures when requested to do so, which is both very impractical and time consuming.

The risk assessment process identifies administrative control measures (procedures, records, signs, etc.) as an important method for managing safety hazards. It should be clear that risk assessments are a very important process for identifying all of the operational controls required in any organization. If a safety procedure exists and it cannot be related in some way to controlling a hazard, then it should be questioned whether the procedure is required at all.





Procedures must be developed that encompass all site activities and processes. These procedures cover situations where their absence could lead to deviations from the site policy and objectives and targets. For those organizations who wish to certify their SSMS to the OHSAS18001 international management system standard, there is an extra requirement to ensure that all of the documentation associated with the system (safety manual, procedures, records, etc.) are controlled i.e., each document is clearly identified with a unique name, reference number and a version number. This is not a specific requirement of the Saudi Aramco SSMS Manual.

The following section gives an example of some typical procedures that are found in safety management systems, but of course the actual procedures will depend on the specific hazards and risks that exist in the organization. In effect, the Operational Control section should be the master list of all the procedures that form part of the safety management system.

## Information to help comply with this requirement

### Management of Change

The organization shall establish, implement, and maintain a management of change process, to ensure that business operational and/or administrative changes - where adverse effects on people property or the environment are anticipated - are evaluated and controlled early in the process. The goal is to have continual compliance with all applicable regulatory requirements and standards. The management of change process shall address emergency changes that may occur outside the scope of the normal process. These emergency changes shall be approved by authorized individuals and included in the normal management of change process for formal approval, as soon as practicable.

This procedure should cover commissioning and decommissioning, as well as asset integrity.



## Permit to work

Certain work activities should be covered by a Work Permit system that covers items such as cold, hot, confined space entry, excavation, electrical isolation, working over water and working at height permits. It is essential that all employees and contractors are trained on the correct operation of this system.

## Control of vendors and contractors

Documented procedures are required to describe how the organization manages health and safety considerations relating to vendors and contractors. Specific site regulations for contractors may need to be developed, and all contractors coming on site for more than one day should receive induction training. Specific rules should be developed for contractors coming on site (see below). The purchasing procedure must be used to control the risks associated with goods, equipment or services purchased and/or used by the organization and communicating relevant procedures and requirements to suppliers and contractors. A rating system should be developed for all vendors and contractors to ensure that only approved companies are used by the organization. The approved companies should be regularly reviewed.

## Hazardous materials

A material segregation policy should be developed to ensure that materials are stored in the correct manner and segregated according to material class. Hazardous material storage locations should be identified in the emergency response plan and Material Safety Data Sheets (MSDSs) controlled by specific procedure(s). All chemicals must be properly labeled and stored, and personnel using the chemicals should receive appropriate training.

## Maintenance and calibration

Procedures must be developed to describe the preventative maintenance and calibration system in operation. These procedures should describe how all assets are uniquely identified, and the different types of routines and work request processes used to manage both reactive and preventive maintenance. The ratio of planned maintenance activities relative to unplanned activities (i.e., fire fighting) should be known (80:20 would be considered a very good ratio, although often difficult to achieve in practice).

## Plant Equipment and Personal Protective Equipment (PPE)

Where risks to the safety or health of employees cannot be avoided or sufficiently limited by technical means or procedures, PPE must be provided. The PPE requirements for

each occupation must be systematically evaluated through safety risk assessments. A master list of PPE and lifting equipment used by the organization should be developed, and records maintained of all employees issued with PPE or lifting equipment. As part of their continual improvement program, suppliers must review all areas where PPE is provided, to try eliminating or engineering out the hazard source, where practicable.

Suppliers must ensure that all PPE provided will:

- Be appropriate to the risk without causing increased risk.
- Take account of the conditions in the workplace.
- Fit the wearer correctly.
- Comply with the requirements specified in the relevant safety data sheet.

All personnel must be trained in the correct use of PPE and lifting equipment, which must be maintained and stored in good working order. An inspection program must be developed for all lifting equipment and PPE. Employees should sign a form to indicate that they have received PPE and lifting equipment, inspected it before use and are aware of how to use it correctly. Some organizations use color coding/tagging systems for managing lifting equipment to easily identify lifting equipment recently checked.





## Waste management

Suppliers must demonstrate that they have tried to eliminate waste as far as possible, and that all remaining waste is either reduced in quantity, reused or recycled as far as practicable. Procedures must be developed to ensure that all hazardous and non-hazardous waste is handled, stored and disposed of in the correct manner, and that only approved contractors are used for waste disposal. The source of each waste should be identified, along with the steps to be followed while handling and storing the waste prior to off-site removal. Records must be maintained of all waste movements offsite, including the waste type, weight (tonnage) of the waste removed (if the waste is liquid, then it should be converted to a solid weight figure using its specific gravity), and whether it was disposed of (e.g., to landfill) or recovered (e.g., recycling).

All contractors who remove waste must be checked to ensure that they are legally compliant to remove the waste, and the full life cycle of each waste stream must be known from cradle to grave. Objectives should be set to reduce the amount of waste generated on site each year and these should be reviewed regularly.

## Site drawings and permits

A procedure must be developed to describe how all site drawings are managed to ensure that they are kept up to date at all times and available to the relevant people.

## Safety and environmental rules

Suppliers should document specific Good Work Practices for all employees to be aware of when they are working on site, which can be derived from the risk assessments. An example of these is shown in Appendix 5.

Suppliers should also develop safety and environmental rules which ensure, as far as is reasonable and practicable, that all other persons (visitors, contractors, members of the public, etc.) on the Company's premises shall:

- Observe Company rules, good work practices and instructions given by persons enforcing the Safety Policy.
- Not work on Company premises until they have read, understood and formally accepted the safety rules of the Company.
- Not work on Company premises until they are covered by insurance against any risk and have received induction training as appropriate.

General site rules must be documented and should include topics such as the following:

- No smoking allowed on site.
- Obey all rules, signs and instructions.
- Report immediately any hazard or hazardous practice you think might cause injury or damage to property, equipment or the environment.
- Report immediately all injuries, illnesses and damage to property and equipment.

- Follow all work instructions and use the correct tools and equipment for the job, having acquired the relevant work permit.
- Wear the specified PPE when required.
- Walk, never run.
- Keep your work area clean and orderly. Put everything in its proper place. Clean as you go.
- Do not alter, adjust or repair equipment unless you are authorized to do so.
- No mobile phones allowed onsite.
- Comply with Good Work Practice requirements when working at the site.
- Do not waste natural resources (electricity, gas, oil, water, etc.).
- Obey the site speed limit of 15 MPH.
- In the event of an emergency, assemble at the designated evacuation area.

Specific rules for contractors working on site should include the following requirements:

- Be aware of, and adhere to, the company's environmental and safety policies.
- Be fully instructed and trained.
- Be aware of, and adhere to, the site environmental and safety requirements.
- Report accidents and incidents immediately.
- Be aware of, and adhere to, the permit to work system.
- Ensure that equipment and tools comply with the relevant environmental, health and safety standards.
- Ensure that valid test/calibration certificates are available if requested.
- Ensure that the working area is kept in an orderly manner and that exits,

evacuation routes and fire fighting equipment are not blocked.

- Be familiar with the contractors evacuation assembly point.
- Ensure that they are aware of, and adhere to, the company's "No Smoking" policy.
- Be aware of, and adhere to, the site speed limit of 15 MPH.
- Ensure that chemicals brought on site have a MSDS, a copy of which must be forwarded to the Environmental and Safety Department for prior approval.
- Be aware of the location and correct use of the nearest spill kits.
- Ensure that they are aware of the requirements for the storage of gas cylinders (i.e., chained securely, etc.) and chemical containers (kept closed if possible, bundled, etc.).
- Ensure that, after completion of work, contractors remove any containers brought on site.
- Ensure that any waste generated is removed from the site at the end of the day or on completion of the job.
- Ensure that the final disposal of all waste is agreed in advance with the Environmental and Safety Department.
- Ensure that neither solid nor liquid wastes are disposed of in the soil or drains.

The organization shall establish, implement, and maintain a management of change (MOC) process to ensure that business, operational and/or administrative changes that may create adverse effects - on people, property or the environment - are anticipated, evaluated

and controlled early in the Process. The goal is continual compliance with all applicable regulatory requirements and Company HSE standards. The MOC process shall address emergency changes that may occur outside the scope of the normal MOC process. These emergency changes shall be approved by authorized individuals and included in the normal MOC process for formal approval as soon as practicable.

## Welfare facilities

Suppliers must ensure that suitable welfare facilities are provided and maintained for all employees. Examples of welfare facilities include the following:

- Food and drink facilities.
- Medical and first aid facilities.
- Maternity programs.
- General sanitation.
- Pest management systems.
- Employee Assistance Programs.
- Company sponsorship/contributions.
- Education programs.

## Housekeeping inspections

Regular housekeeping inspections are very important for managing safety hazards, and participation by management in these inspections on a regular basis will clearly show the management commitment required to make the safety system successful. A schedule could be made for different members of the management team to visit different parts of the operation, and the schedule reviewed regularly. An inspection

checklist should be developed for the different areas being visited, and the type of information reviewed should be relevant for the particular area, and should avoid asking questions that will always have the same answer (e.g., “Do exits lead to a place of safety?” – This may be relevant for a construction related activity, but of less value at a fixed address, where this information could be covered instead by a risk assessment of the area). All issues identified during these inspections should be addressed using the Non-conformance, Corrective Action and Preventive Action system.

Please see Appendix 6 and Appendix 7 for examples of inspection (general and office) checklists.

## Safe operation of vehicles

Rules must be established for the safe operation of vehicles. These rules should include behavioral rules for operation and maintenance. The following is an example of some rules that should be adopted as part of the supplier safety management system.

### Before You Can Drive:

- All drivers shall maintain a valid (e.g., Saudi Arabian) driver's license.
- All drivers shall immediately report any changes in the vehicle status to their supervisor.

### Preparing to Drive:

- A 360 degree walk-around inspection shall be performed before getting into the vehicle.
- Vehicles shall be inspected before use for safety equipment (e.g., spare tires).
- Vehicles shall be maintained in a safe operating condition.
- Any unsafe condition shall be corrected or reported immediately.
- Tires shall be regularly inspected and tire pressure maintained per manufacturer's specification.
- Driver shall ensure adequate supplies and communication equipment are available for remote area driving.





### While Driving:

- Drivers shall comply with all applicable laws.
- The use of, or being under the influence of, intoxicants or medications that cause impairment while operating a vehicle is prohibited.
- Using a cell phone, eating or drinking is prohibited.
- Only authorized personnel shall drive or be carried in company vehicles.
- All occupants shall wear seat belts.
- Vehicles shall not be left unattended while the engine is running.
- Vehicles shall not be fuelled with engine running or during use of any electrical device.
- Drivers shall report all vehicle collisions and moving violations immediately, no matter how minor using the Incident Investigation process.
- Driver is responsible for adequate water, safety equipment and communications equipment relative to remote area driving.

## Environmental aspects and impacts

Environmental management is a very important part of any organization's operations. While strictly not part of the safety manual, some basic concepts of environmental management are introduced here, since in practice a single integrated management system is usually the most effective way to manage safety and environmental risk. Environmental risk

assessments are more correctly identified as environmental aspect and impact assessments, and the basic approach is the same as for safety risk assessments - identify the hazard, assess the risk and control the risk, but the risk assessment methodology is not considered here. The following section looks at some of the environment aspects (cause of the emission) and impacts (effect of the emission) for the following categories:

- Air Emissions.
- Waste Emissions.
- Materials Management.
- Noise.
- Ground Water and Soil Pollution.
- Aqueous emissions.
- Resource Usage.

Each of the examples shown considers the different sources of the emissions, their potential environmental impacts and some simple initiatives that could be adopted to minimize these environmental impacts.

### Air emissions

#### Sources of air emissions:

Operation of boilers; cooling units with ozone depleting gases; use of solvent degreaser, nuisance dust, welding, braising, grinding and soldering on-site and in workshop, generation of H<sub>2</sub> during Fork Lift Truck charging, and emissions from transportation vehicles.

#### Impact of these emissions on the environment:

Contamination of air, reduction in ambient air quality, generation of SO<sub>x</sub> and NO<sub>x</sub> and Green House Gases.

#### Simple measures to prevent air pollution:

Keep container lids closed whenever possible.  
Regular maintenance of transport fleet.  
Good housekeeping to control dust levels, etc.  
Regular service of boiler and cooling equipment.  
Ensure that any odorous emissions are minimized.

### Waste emissions

#### Sources of hazardous waste:

Fluorescent lights, waste chemicals, asbestos cement, lead acid and rechargeable batteries, obsolete IT equipment, lubricants, oil filters and oily rags, grease, solvent degreasers, hazardous aerosol cans, and spent absorbents.

#### Sources of non-hazardous waste:

Packaging waste (plastic, paper, corrugated cardboard, glass, strapping), pallets, scrap metal, ink cartridges, toners, diskettes, aluminum, furniture, office paper, used stamps, tires, PPE, raw material drums, shredding and general waste.

#### Impact of these emissions on the environment:

Incorrect handling, storage and disposal of waste can result in potential contamination of air, land or water.



### Simple measures to prevent waste pollution:

All waste fluorescent lights are segregated at site level into dedicated containers.

Adhering to the waste management procedures.  
Good housekeeping – dispose of all waste into the correct bins.

Use the segregation facilities provided by the main contractor if sub-contracting on site.  
Recycle wherever possible.

## Materials management

### Sources of materials mismanagement:

Consumption of raw materials, i.e., metal, cardboard, plastic, labels, pallets, flex wire and electrical parts. Consider the relative balance between the amount of raw materials purchased and the finished goods produced.

### Impact of these emissions on the environment:

Depletion of natural resources resulting in increased generation of waste.

### Simple measures to prevent materials mismanagement:

Reuse, reduce and recycle.  
Suggest ways that material wastage could be avoided.  
Recycle waste materials and use the revenue for benefit of employees (revenue generated could contribute to social activities etc.).

## Noise

### Sources of environmental noise pollution:

Operation of plant and machinery, transport fleet and supplier/employee transport movements

Note: environmental noise is the noise that is measured at the site boundaries near noise sensitive locations such as schools, residential areas, other facilities, etc. The limits are usually much lower than health and safety noise limit values.

### Impact of these emissions on the environment:

Potential nuisance value associated with noise emissions.



### Simple measures to prevent noise pollution:

Report any defects causing excessive noise in plant and equipment immediately.

Be conscious of areas where noise sensitive residents may complain of excessive noise or noise outside of normal working hours.

### Ground water and soil pollution

#### Sources of Ground Water and Soil pollution:

Spills of liquid and leaking underground and overground pipes, valves, flanges and drains.

Run off water from roof and road areas.

#### Impact of these emissions on the environment:

Contamination of soil and water.

### Simple measures to prevent Ground Water and Soil pollution:

Ensure that all tanks and containers are stored inside secondary containment at all times (i.e., banded).

Clean up spills immediately using spill kits.

### Aqueous emissions (emissions to water)

#### Sources of Aqueous Emissions (Emissions to Water):

Run-off water from road and roof area.

#### Impact of these emissions on the environment:

Contamination of river or lake water or soil.

#### Simple measures to prevent Aqueous Emissions (Emissions to Water) pollution:

No washing vehicles, etc., on site.

Ensure drains are not blocked or leaking.

### Resource usage

#### Sources of Resource Misuse:

The misuse of natural gas, oil, electricity, diesel and compressed air by the company.

#### Impact of these emissions on the environment

Greenhouse gas emissions.

Depletion of non-renewable resources.

#### Simple measures to prevent Resource Misuse:

Only purchase equipment with high energy efficiencies.

Ensure the efficient use of energy at all times

Turn off lights when not required.

Do not leave equipment switched on when going on lunch breaks, etc.



# Control of Records

## Objective

Suppliers shall ensure that records are maintained to demonstrate that the safety system is effective and is managing its safety risks.

## Expectations

### Record retention

Ensure that a master list is maintained of records related to the safety system, and that the retention period of all records is clearly defined

### Location of record

All records must be readily identifiable and easily retrievable

### Record condition

Maintain records in a legible and traceable form at all times.

### Periodic review

Periodically review the records management process to ensure it remains suitable and effective for the continual improvement of the safety system.

## Introduction

Suppliers must maintain a master list of all the safety records that form part of the management system to:

- Ensure that all records that form part of the SSMS are clearly identified.

Note 1: The risk assessment refers to Administrative Controls, which include procedures and records.

This section should be consulted to ensure that all procedure and records mentioned in the risk assessment are identified in this section. In addition, the section on Operational Control should list all procedures that form part of the safety management system, and these should be cross-referenced to ensure that all related records are recorded here. Documents of external origin, e.g., MSDSs, should also be referenced here.

Note 2: The document reference for each record should be identified to ensure that it is fully traceable. If the document is of external origin, then that should be noted.

- Ensure that the retention time of all records is clearly determined.

Note: For most records, a period of 7 years is a recognised standard. The exceptions to this are Work Permits (unless there has been an accident, in which case all related work permits should be retained for as long as necessary for the accident investigation process) and exposure to asbestos records (which should be kept for at least 40 years). The policy of the supplier in relation to documents that have exceeded their retention period and are no longer required should be documented, e.g., all documents will be disposed of in an appropriate manner.

- Ensure that the storage location of records can be easily determined.

It is not expected or practical to store all safety records in one location, particularly in large organizations.

Therefore, if documents are stored in different locations some form of index needs to be maintained. This section of the safety manual fulfils that purpose.

Note 1: If the document is stored on site, then it must be maintained in a safe and secure manner that will ensure it remains legible and identifiable, e.g., will not be affected by damp or humid conditions.

Note 2: If the document location is known it will obviously make document retrieval much easier, particularly during audits or incident response events.

## Information to help comply with this requirement

Suppliers should use this section of the safety manual to ensure that their control of records is compliant with the manual's requirements. The following section shows how the master list of safety records can be structured. Please note that SRxx is a generic reference to the record number.

Name of Record	Information it yields	How long is it kept?	By Whom?	Where?
Accident Report and Investigation SRxx	All accidents and incidents at the site	Indefinite	Safety Manager	Safety Manager's Office
Fire Extinguishers (external record)	Date of last check on fire extinguishers and type of extinguisher	7 years	Engineering Manager	Engineering Manager's Office
Calibration Certs for Gas Sensors (external record)	Date of and result of last calibration and date next calibration due.	7 years	Engineering Manager	Engineering Manager's Office
Check on Boiler Operations SRxx	Date of and result of last boiler test and date next boiler test due.	7 years	Engineering Manager	Engineering Manager's Office
Housekeeping Inspection Form SRxx	Template used for house-keeping audits at the supplier	7 years	Administrator Manager	Administration Manager's Office
Ladder Inspection SRxx	Results of ladder inspection	7 years	Engineering Manager	Engineering Manager's Office
Scaffold Inspection SRxx	Results of scaffolding inspection	7 years	Engineering Manager	Engineering Manager's Office
Masterlist of PPE SRxx	Record of all types of PPE used at the site	7 years	Engineering Manager	Engineering Manager's Office
Masterlist of Lifting Equipment SRxx	Record of all types of lifting equipment used at the site	7 years	Engineering Manager	Engineering Manager's Office
Maintenance Record of Equipment SRxx	Maintenance record of equipment	7 years	Engineering Manager	Engineering Manager's Office
Work Permits SRxx	Permits to works issued to cover hot work, confined space, electrical work etc.	1 year	Engineering Manager	Engineering Manager's Office
MSDS	Safety data sheet for all chemicals managed at the site	7 years	Engineering Manager	Engineering Manager's Office
Safety File SRxx	All documentation relating to any site projects	7 years	Engineering Manager	Engineering Manager's Office
Site Drawings SRxx	Hardcopies of all site drawings e.g., emergency exits, chemical storage locations, building locations etc	7 years	Engineering Manager	Engineering Manager's Office



# Emergency Preparedness and Response

## Objective

Suppliers shall develop an emergency response plan to ensure that potential emergency situations are identified through the risk assessment process, and that there is an adequate response plan for each type of emergency identified. The emergency response plan shall be periodically tested.

## Expectations

### Risk Assessment

Identify the different types of emergency situations that can arise and ensure that there is an appropriate response to all potential accidents (injury response) and emergencies (fire, explosion, gas leak and spill response, etc.).

### Emergency Response

Ensure that all response plans will be effective in preventing and minimizing the likely illness and injury, which may arise from such accidents and emergencies.

### Organizational Structure

Establish and define roles and responsibilities of specific personnel within the organization that will form the emergency response team to manage emergency situation.

### Communication

Ensure that effective internal and external communication systems are in place, and that backup systems are maintained and available.

### Maintenance of emergency equipment

Ensure that all equipment identified as part of the emergency response plan is maintained in a fit and operational state at all times.

### Training

Provide adequate training to meet the requirement of the emergency response plan.

### Periodic test and improvement

Ensure that emergency procedures are periodically reviewed and tested where practicable, particularly after the occurrence of an incident (accident) or emergency.



## Introduction

Suppliers must develop an emergency response plan (relating to emergencies, incidents and accidents), which details their response to a situation involving actual or potential damage to man or the environment. The emergency response plan contains details of the emergency response system, operational procedures and relevant contact numbers.

In the event of an emergency, an emergency response team should be assembled to ensure that a proper evacuation is taking place, that emergency services have been called where required and that other essential tasks, including traffic control and site access control, are carried out.

The emergency response team should be clearly defined and the functions performed by the team clearly understood. Employees should be trained on the different functions within the team, as during an emergency, some personnel may be unavailable but the team must still perform its overall functions. Desktop training should be undertaken to prepare for reasonably foreseeable scenarios.

Any equipment that is identified for controlling an emergency, e.g., sprinkler systems, fire extinguishers, etc., must be placed on a maintenance program and be tested periodically. The emergency response plan should be tested periodically, and all evacuations, whether planned or actual, should be recorded (e.g., non-conformance) and reviewed and the lessons learned (corrective action and preventive action) should help improve the system.

A copy of the emergency response plan should be located in a readily accessible area for use by members of the emergency response team.

## Information to help comply with this requirement

Suppliers should use this section of the safety manual to develop an emergency response plan that is compliant with the requirements of the safety manual.

1. Review the safety risk assessments to identify clearly all hazards that relate to potential emergencies at the site.



Examples of such emergency situations that may arise include the following:

- Fire.
- Spill.
- Explosion.
- Gas leak.
- Toxic vapor release.
- Medical emergency.
- Confined space rescue.
- Recovery from working at height.
- Biological hazards  
(e.g., pandemic or epidemic).
- Pipeline damage.
- Well control failure.
- Lightning.
- Flooding.
- Building collapse.
- Security breach, etc.
- Vehicle accident.

Note: the "Timing" of all hazards relating to potential emergencies should be set to "Emergency" in the risk assessment to facilitate this process.

2. A detailed emergency response procedure must be developed and tested for all potential emergency situations (injury response, fire response, spill response, explosion response, gas leak response, etc.) identified in the emergency response plan.

3. The emergency response procedures must identify the means of preventing and minimizing the likely illness and injury, which may arise from such accidents and emergencies.

4. All of the emergency response procedures must be periodically reviewed and tested where practicable, particularly after the occurrence of an accident or emergency.

5. A hardcopy of the emergency response plan must be made available for the emergency services when they come on site.

6. Salvage priorities must be determined by the supplier, documented and made known to the emergency services.





7. The potential consequences of an event, both onsite and offsite, must be identified.

8. Fire drills must be conducted at least twice a year. An unplanned evacuation will substitute for a planned fire drill.

9. Records must be kept of all evacuations, whether planned or actual, and reviewed so that any lessons learned are used to improve the system.

Note: The non-conformance, corrective and preventive corrective action system should be used to record these events.

10. Access control procedures must be in place for all visitors and contractors.

11. The expected response time of external emergency response services should be known.

### Required Resources and Site Drawings

12. The following resources should be available, and documented in site drawings, as part of the emergency response plan for the site:

- General Site Layout.
- Building plans showing alarm device locations (BGU, Smoke/Heat detector).
- Wind sock(s).
- Mobile phones.
- Hydrants/Water Sources.
- Sprinkler system layout.
- Sprinkler system isolation valves.

- Evacuation Routes.
- Assembly Points.
- Emergency Exits.
- First Aid Boxes.
- Eye Wash Stations.
- Gas Isolation Point.
- Electrical isolation Point.
- Electrical Panels and Substations.
- Emergency Generators.
- Diesel Storage Area.
- Gas Bottle and Cylinders.
- Spill Kits.
- Tank Storage Locations and Contents.
- Tank storage isolation valves.
- Chemical Storage Area and Content.
- Bund Locations.
- Material Safety Data Sheets.
- Building Drainage Systems and valve isolation points.
- Fire Detection Equipment.
- Fire extinguishers.
- Fire Fighting Foam (Type & Quantity).
- Defibrillators.
- Life Buoys.

### Managing an Emergency

13. The emergency response plan must identify an emergency response team that will deal with an emergency situation as it was unfolding.

14. Evacuation checklists should be available for all personnel in the event of an evacuation.

15. A nominated Incident Control Centre should be identified from which to manage an emergency.



16. The facilities at the Incident Control Center should include details of:

- All employees and their contact details, including next of kin.
- Emergency response personnel within the organization.
- Details of other contacts that may be required during emergency events e.g., emergency services, neighboring facilities, regulatory authorities, media, etc.
- Backup copy of the emergency response plan.
- Copy of all relevant emergency site drawings.

17. Appropriate communications systems for dealing with an emergency (phones, pagers, two-way radios, team call out system, backup systems, etc.) should be available and operational.

18. If applicable, a nominated off-site incident control centre should be identified in the event that the main site is inaccessible during the emergency.

19. The emergency response plan shall establish a communication process to determine if external disclosure is necessary.

20. The plan shall include a medical surveillance process for emergency response team members

21. The Emergency Response Plan shall establish post-event procedures, including:

- Decontamination of affected areas and equipment and management of contaminated debris;
- Evaluation and revision of the Emergency Response Plan, as necessary, and implementation of appropriate measures to prevent recurrence of the incident; and,
- Activation of the organization's business recovery plan, if appropriate.

22. The emergency response plan should have nominated resources with defined responsibilities for:

- Incident controller.
- Emergency coordinator.
- Dealing with the emergency services.
- First aid.
- Traffic controller.
- Fire warden.
- Roll callers.
- Dealing with the media.
- Dealing with relatives.
- Telephonist.
- Security personnel.
- Dealing with incidents outside of normal working hours.



Note: some organizations have onsite personnel trained to deal with potential emergencies and these are often referred to as the forward control team or emergency response team. Their function is to deal with the direct scene of the incident. In the event of a major emergency, additional resources are provided, and these are often referred to as the Crisis Management Team. It is up to the individual supplier to decide on the most suitable structure for their particular operations.

## Maintenance of Emergency Equipment

23. A list must be prepared of all the engineering controls identified in the risk assessment process for managing potential emergencies. The items on this list must then be placed on a maintenance, inspection or calibration program as appropriate. This list will identify equipment such as fire extinguishers, heat detectors, smoke detectors, etc.

Examples of such equipment include:

- Hydrants.
- Fire Extinguishers.
- Fire Hose Reels.
- Sprinkler Systems.
- Fire Panels.
- First Aid Boxes.
- Back Up Generators.
- Spill kits.
- Communications systems.
- Smoke detectors.

24. Records must be kept of all maintenance, calibration and inspections.

## Emergency Response Training

25. The training plan in relation to emergency preparedness and response system should identify clearly the type of training that is required.

Examples of such training include:

- First Aiders.
- Fire Alarm System.
- How to use Fire Extinguishers.
- Emergency response team.
- Incident Controller.
- Site Main Controller & Support Personnel.
- Media and Community Awareness.
- Spill Control.
- Manual handling.
- Fire Response Team.
- Breathing Apparatus.
- Standby Entry Duties.
- Communications Techniques.

26. Desktop simulation exercises should be undertaken using reasonably foreseeable emergency situations determined in the risk assessments.

27. The emergency response plan should be discussed/reviewed with external emergency agencies if possible.



# Monitoring and Measurement

## Objective

Suppliers shall maintain a master list of all the monitoring and measurement activities that are required to comply with the safety policy, the risk assessment process and the management system. The list shall be reviewed regularly to ensure that required activities are performed systematically and on time.

## Expectations

### Types of monitoring

Ensure that both qualitative and quantitative measures, appropriate to the needs of the organization are managed as part of the safety system.

### Leading and lagging metrics

Record the results of both leading metrics (conformance to plans, etc.) and lagging metrics (historical, lost time days, etc.). These are sometimes referred to as proactive and reactive measures.

### Corrective and preventive actions

Analyze results of monitoring and measurement tasks, and rectify deficiencies using corrective and preventive action.

### Calibration and maintenance

Ensure all relevant equipment is on an appropriate monitoring and calibration schedule.

### Critical safety equipment

Define which equipment is critical to the operation of an effective safety management system, and ensure that it is maintained and calibrated as a priority.

### Periodic review

Periodically review the monitoring and measurement process to ensure that it remains suitable and effective, and leads to continual improvement of the safety system.

## Introduction

Suppliers must ensure that the monitoring and measurement tasks required by their safety management system are performed on a regular basis. It is important that the tasks associated with the monitoring and measurement program are clearly identified and managed carefully. There are a number of different sources of information that can be used to identify the relevant tasks, which include:



- Legal requirements, including license requirements.
- Safety risk assessments.
- Engineering maintenance and calibration programs.

## Information to help comply with this requirement

Suppliers should use this section of the safety manual to ensure that their Monitoring and Measurement process is compliant with the requirements of the safety manual.

The safety system will identify many different activities that need to be monitored and measured regularly. This section of the safety manual requires the suppliers to identify all of the monitoring and measurement activities in a single location in the system. This is to facilitate the tasks involved and ensure that the information is managed effectively so as not to omit any tasks by error.

There are different aspects of the business that need to be addressed to establish and implement a monitoring and measurement program for the SSMS. One of the key sources of information for determining what needs to be monitored and measured is the risk assessment process, as this activity is one of the seven control measures evaluated for every

hazard identified. The following template provides a sample for such a monitoring and measurement program.

### Section 1 – Description of Performance Indicator

Describe the activity that needs to be undertaken. If the task is safety critical (i.e., a failure to complete the task described could result in serious injury or harm), then this should be identified, so that extra attention is given to this task.

### Section 2 – Frequency of the Task

For each task that is identified, specify the required frequency that this task needs to be completed.

### Section 3 – Responsible Person

Identify the person who is responsible for making sure the task is completed. The person should be identified by Job Title as opposed to his or her actual name.

### Section 4 – Related Procedure

If the task is one that is undertaken by the supplier, there will probably be a related procedure and this should be referenced. If the task is undertaken by an external agency, it will be adequate to either say “Not Applicable (N/A)” or “External Procedure.”

### Section 5 – Related Record

If the result of the task is recorded on an internal record within the organization, this record should

be identified. If the test results are recorded by an external agency, it will be adequate to refer to “External Record.”

### Section 6 – Corrective Action

It is important that all results are reviewed internally by the supplier. This review should identify any potential problems with the result, any abnormal results and any worrying trends. For instance, if the report on the fire extinguishers stated that over 40% of them were non-functional, then even though they may already have been replaced by the service provider, the event should still be recorded as a Non-Conformance and a Corrective Action generated as appropriate.

The format of the Monitoring Matrix could be amended to include the actual range of results and their associated limit values, e.g., pH with a range of 6-9.

It is likely that there will be many different types of monitoring tasks that will need to be undertaken as part of the SSMS. The following is a suggested template for the Monitoring Matrix. It is broken into different sections, but the general format and the details within the Matrix will need to be reviewed by the supplier in light of their own legal requirements and risk assessment data.



## HEALTH AND WELFARE

Performance Indicator	Frequency Testing	Responsibility	Procedure/ Document Reference	Record Reference	Corrective Action
Accidents, Incidents and Dangerous Occurrences	Continuous	Job title of person responsible	Specify procedure	Specify regulatory forms as well here.	Inform SQE Manager
First Aid Kits	Every month	Safety Officer and Foremen	Specify procedure	Specify record	Inform SQE Manager
Housekeeping/Site Inspections	Monthly	Foreman/Safety Officer	Specify procedure	Specify record	Inform Foreman
Eye testing for VDU users	Every 24 months	Departmental Manager	Specify procedure	Specify record	Inform SQE Manager
Noise	As required	Departmental Manager	Specify procedure	Specify record	Inform SQE Manager
Audiometry	12 months after first test and every 5 years thereafter	Departmental Manager	Specify procedure	Specify record	Inform SQE Manager
Toilets and washbasins	Twice Weekly	Engineering Manager	Specify procedure	Specify record	Inform SQE Manager
Pest Control	Every 7 weeks	Purchasing Manager	Specify procedure	Specify record	Inform Engineering Manager

## FIRE AND EMERGENCY RESPONSE

Performance Indicator	Frequency Testing	Responsibility	Procedure/ Document Reference	Record Reference	Corrective Action
Fire Extinguishers	Annual	Engineering Manager	Specify procedure	Specify record	Inform SQE Manager
Fire Detection and Alarm	Annual	Engineering Manager	Specify procedure	Specify record	Inform SQE Manager
Fire Drill	Twice a Year	Engineering Manager	Specify procedure	Specify record	Inform SQE Manager
Lightning Protection	Annual	Engineering Manager	Specify procedure	Specify record	Inform SQE Manager
Emergency Lighting	3 Months	Engineering Manager	Specify procedure	Specify record	Inform SQE Manager
Checks on Emergency Doors	6 Months	Job title of person responsible	Specify procedure	Specify record	Inform SQE Manager
Spill Control Equipment	Monthly	Purchasing Manager	Specify procedure	Specify record	Inform Engineering Manager
Gas Sensors	6 Months	Departmental Manager	Specify procedure	Specify record	Inform SQE Manager

## MANDATORY CHECKS ON PLANT EQUIPMENT

Performance Indicator	Frequency Testing	Responsibility	Procedure / Document Reference	Record Reference	Corrective Action
Boiler Operation	Annual	Safety Officer and Foremen	Specify procedure	Specify record	Inform SQE Manager
Forklift Trucks	Daily Weekly Annual	Foreman/Safety Officer	Specify procedure	Specify record	Inform Foreman
Scaffolding	Weekly	Departmental Manager	Specify procedure	Specify record	Inform SQE Manager
Ladders	Daily	Departmental Manager	Specify procedure	Specify record	Inform SQE Manager
Mobile Elevated Work Platforms	Daily Weekly Annual	Foreman/Safety Officer	Specify procedure	Specify record	Inform Foreman
Lifting Equipment	6 Months	Engineering Manager	Specify procedure	Specify record	Inform SQE Manager
Roller Shutter Doors	6 Months	Engineering Manager	Specify procedure	Specify record	Inform SQE Manager
Portable Appliance Testing	Annual	Engineering Manager	Specify procedure	Specify record	Inform SQE Manager
Earth Relay Switch	Annual	Engineering Manager	Specify procedure	Specify record	Inform SQE Manager

## TRANSPORT SAFETY

Performance Indicator	Frequency Testing	Responsibility	Procedure / Document Reference	Record Reference	Corrective Action
Tachometer	Weekly	Job title of person responsible	Specify procedure	Specify regulatory forms as well here	Inform SQE Manager
Maintenance	Monthly	Safety Officer and Foremen	Specify procedure	Specify record	Inform SQE Manager
Audit of driving licenses	Annual	Foreman/Safety Officer	Specify procedure	Specify record	Inform Foreman
Mandatory legal check	Annual	Departmental Manager	Specify procedure	Specify record	Inform SQE Manager

# Incident Report and Investigation

## Objective

The SSMS must ensure that all incidents and near misses are reported immediately, investigated, and the underlying safety deficiencies and other factors that might be causing or contributing to the occurrence of incidents and near misses are determined to prevent a recurrence. The risk assessment process must be reviewed after the occurrence of all incidents and near misses.

## Expectations

### Incident and Near Miss Report

All incidents must be reported promptly and comprehensively.

### Incident type

The process must allow for the reporting of different types of incidents and near misses.

### Investigation

Thorough investigations must be undertaken in a timely manner to identify underlying safety deficiencies and other factors that might be causing or contributing to the occurrence of incidents and near misses.

### Corrective and preventive actions

Corrective and Preventive actions must be taken to prevent the recurrence of the incident and near misses and identify opportunities for preventive action.

### Risk assessment

The relevant risk assessments must be reviewed as part of every investigation.

### Communication

The results of investigations must be communicated so that lesson learned can be shared across the organization.

### Training

All personnel involved in incident and near miss investigations should receive appropriate training.

### Periodic reviews

The incident report and investigation process must be periodically reviewed as part of the continual improvement program.





## Introduction

The supplier must develop a detailed process for reporting and investigating all incidents and near misses. Forms have been developed to help make this process simpler. The Incident and Near Miss report form captures such information as what happened, when did it happen, where did it happen, who needs to be notified, details of the injured person (if any) and other additional information as required.

The incident investigation form is more detailed and the purpose of this form is to ensure that any underlying safety deficiencies and the factors that caused or contributed to the occurrence of incidents are identified and corrective and preventive actions implemented to prevent a recurrence. The incident investigation form captures such information as loss potential, basic investigation details and root cause analysis, and the overall summary report of all the information considered during the investigation.

It should be remembered that incidents happen because of a failure in the risk management process. It may be that the hazard had not been identified in the risk assessment, or that controls were not identified or simply were not being managed properly. It is essential that the

relevant risk assessments are updated after each incident investigation, to prevent a recurrence of similar Incidents in the futures.

## Information to help comply with this requirement

This section is written in two parts comprising of various sections as detailed below.

### Part 1: Reporting an Incident:

Section 1: Incident Details.

Section 2: Injured Person Details (to be completed if appropriate).

### Part 2: Investigating an Incident:

Section 3: Basic Investigation Details.

Section 4: Investigation Causes.

Section 5: Investigation Details / Root Cause Analysis.

Section 6: Sign Off.

### Part 1: Reporting an Incident

Please refer to Appendix 8 to see the Incident Report form. There are two different stages involved in recording and reporting an Incident. These are:

- Recording the Incident details.
- Recording the injured person details.

## Section 1 – Incident Details What Happened?

### 1. Incident Involvement:

Determine if the Incident type was one which involved a Person, a Product, Property, the Environment or Other.

### 2. Determine the Incident Type:

a) An incident - is an event that has given rise to injury, ill health or fatality. Some organizations prefer to use the term 'accident' for this type of event.

b) A near miss - is an incident or event that had the potential for injury or loss.

### 3. Classify the Incident as Major, Serious or Minor:

Major is where there is a potential fatality or death, Serious is where a serious injury occurred, e.g., broken leg, but the person is not going to die and Minor is an Incident with only a small amount of damage.

### 4. Short Description:

Give a brief (1-line) description of the Incident.

### 5. Incident Number:

Assign a unique number to the Incident.

### 6. Causes:

Outline what caused the Incident in your opinion (what objects or substances were involved).

### 7. Process Involved:

Describe the activity, task or process that was being undertaken just prior to the Incident. This is normally a description of what should happen every day, etc.



#### 8. How It Occurred?

Please describe how the incident occurred. Note any differences from what normally happens with the process in Step 7 above with what actually happened on this occasion.

#### When did the incident happen?

##### 9. Time & Date:

The date and time of the Incident should be recorded.

Note: If the Incident is reported more than 24 hours after the Incident occurred, then it should be reported as a 'Late Reported' Incident.

##### 10. Shift:

Please enter the Shift during which the Incident occurred, e.g., Day, Evening, Night, etc.

#### Where did the incident happen?

##### 11. Location of Incident:

Please type in the location of the incident, i.e., the site, department and exact location.

#### Notify the following people?

##### 12. Enter the Names:

Enter the Names of the relevant personnel who should be notified, i.e., "Reported by", "Reported to", "Department Manager" and "Department Supervisor".

##### 13. Comments:

Enter any additional comments as required.

Note. Reference could be made here to any attachments or pictures, etc., that may need to be attached to the report.

##### 14. Witness Statements:

Add any witness statements if relevant, e.g., persons (name, address, telephone number, etc.).

## Section 2 – Injured Person Details

##### 15. Recording:

Record the name of the injured person, their unique ID number and Department

##### 16. Type of Incident:

Determine if the Incident was Fatal or Non-Fatal.

##### 17. Injured Person Type:

Select the appropriate Injured Person Type (full time employee, part time employee, contractor or visitor, etc.)

##### 18. Occupation:

Record the relevant Occupation of the Injured Person (Process Engineer, Safety Officer, Laboratory Technician, etc.)

##### 19. Length of Occupation:

Determine how long the Injured Person was performing their current job.

##### 20. Injury Details:

Identify the relevant Injury Details under the headings provided (body part affected/type of injury). Multiple selections are possible.

##### 21. Injury Reaction:

Describe the Injury Reaction that the injured person had. (Became Unconscious, Required an Ambulance, etc.)



**22. Action Taken:**

Describe the Action Taken to assist the injured person (Sent Home, Sent to Hospital, etc.)

**23. First Aid or Medical Assistance:**

Determine if First Aid or Medical Assistance was provided to the injured person. If it was provided, please provide the name of the person providing aid, the treatment details and treatment location.

**24. Resume after Incident:**

Determine if the Injured Person continued working after the Incident for any period and if so for how long.

**25. Lost Working Days:**

Determine if the injured person is back at work and record any Lost Working Days for the injured person.

Note: For incidents involving Lost Time, the initial report may record "No" but it is easy to update the report when the exact number of lost working days are known.

**26. Usage of PPE:**

Determine if any Personal Protective Equipment was specified for the particular job, if it was made available to the injured person and if it was being used by the injured person at the time of the Incident.

Also assess whether the PPE was appropriate for the task (e.g., fit with other PPE, ear defenders allowed for hearing warning calls, in good condition, etc.)

Note 1: The risk assessment should be consulted to determine if PPE was required.

Note 2: If PPE was specified then a list of PPE that is used by the organization should be available. Examples of PPE include body suits, elbow pads, gas mask, gloves, goggles, hard hat, knee pads, masks, safety boots and shoes, etc.

**27. Required Training:**

Identify if any Training was required for the particular task and if it was provided, and when, (were there any recent changes and were they conveyed appropriately).

Note: The risk assessment should be consulted to determine if training was required.

**28. Comments:**

Include any comments from the Injured Person as relevant.

Note: A statement should be obtained from the injured person where possible and included here as stated, with no interpretation.

**29. Notification:**

Send a notification that an Incident has occurred should be sent to relevant persons. These notifications should include as a minimum:

- Person reporting the Incident.
- The person to whom the Incident is being reported.
- Manager of the area where Incident happened.
- Supervisor of the area where incident happened.

**30. Corrective Actions:**

Generate corrective actions at this stage. This may be useful for those reported Incidents which will not require an Investigation but for which actions are necessary.

**31. Investigation:**

Determine if an Investigation is required for the Incident that is being reported.

Note: In most organizations it is the Safety Manager who determines if an investigation is required or not.

**32. Reporting:**

If an investigation is required, when the Report has been saved it is necessary to determine who the Investigators are going to be.


Note 1: Investigators should not be from the area where the Incident occurred and should be impartial to the area/person(s) involved.

Note 2: The names of the investigators selected here will appear in the Sign Off panel of the Investigation automatically for the first level sign off.

**Part 2: Investigating an Incident**

The purpose of the Investigation is to ensure that the root cause(s) of the Incident are determined systematically, and that Corrective Actions are put in place to prevent a recurrence of the Incident. Any information that is captured must be recorded so that all the evidence is retained in one place for future reference. Please refer to Appendix 9 to see the Incident/Near Miss Investigation form.

In the first panel the Incident is broken down into a series of time events, which should highlight (1) what gaps may be present in the management system to (2) allow certain hazards be present and (3) the Incident to occur and (4) cause harm. The second panel can be used to expand further into the detail of what factors caused the Incident to occur.



Note 1: The purpose of the investigation must not be to apportion blame but to ascertain Corrective Actions.

Note 2: Investigation reports are legal documents and may be used in a court of law should a claim or prosecution be made following the Incident.

Note 3: It may be necessary to engage external advice or to conduct investigations depending on the seriousness of the Incident, if in-house expertise is not available.

### Section 3 - Basic Investigation Details

#### 33. Risk Assessment Identification:

Identify if the hazard was identified in the risk assessment. If yes, please provide additional details as required.

#### 34. Specified Controls:

Determine if the specified controls in the risk assessment, if any, were in place at the time of the Incident.

#### 35. Cost:

Estimate the likely cost of the Incident.

#### 36. Future loss:

Determine the Potential for future loss from this Incident

Note 1: This is an indication as to how serious the Incident was and how fast actions need to be put in place to prevent a possible recurrence of the Incident. It is a risk assessment, using the same methodology employed in the Hazard identification, risk assessment and risk control section of the SSMS Manual.

#### 37. External Notification:

Determine if any external agencies need to be notified about the Incident (Environmental Regulator, Health and Safety Regulator, Insurance, Police, etc.)

Note: A record should be kept of all such communications.

#### 38. Time Frame and Analyzing:

The first part of the investigation requires that the time frame of the Incident is broken down and analyzed in detail:

- The Incident - quick description of the Incident that occurred e.g., employee fell from a ladder.
- After the Incident- describe what happened as a result of the Incident that occurred, e.g., employees arm was broken (as a result of the fall from the ladder above).
- Next, identify what Hazard(s) were present prior to the Incident that resulted, or could have resulted, in the Incident occurring and give a brief explanation of your selection.

Note: the same hazard checklist that is used in the Safety Risk Assessment section should be employed here, but it is repeated here for convenience.

- |   |   |
|---|---|
| <input type="checkbox"/> Falls or falling objects | <input type="checkbox"/> Noise                    |
| <input type="checkbox"/> Manual handling          | <input type="checkbox"/> Vibration                |
| <input type="checkbox"/> Portable hand tools      | <input type="checkbox"/> Display screen equipment |
| <input type="checkbox"/> Machinery & plants       | <input type="checkbox"/> Thermal environment      |
| <input type="checkbox"/> Vehicles                 | <input type="checkbox"/> Lone working             |
| <input type="checkbox"/> Fires                    | <input type="checkbox"/> Confined spaces          |
| <input type="checkbox"/> Explosions               | <input type="checkbox"/> Working environmental    |
| <input type="checkbox"/> Chemical/dusts           | <input type="checkbox"/> Welding                  |
| <input type="checkbox"/> Biological agents        | <input type="checkbox"/> Foreign travel           |
| <input type="checkbox"/> Radiation                | <input type="checkbox"/> Security                 |
| <input type="checkbox"/> Electricity              | <input type="checkbox"/> Other hazards            |
| <input type="checkbox"/> Pressure                 |   |

- Finally, determine what part(s) of the safety management systems MAY have failed such that the hazards were present, and the resulting Incident came to pass. Give a brief explanation of your selection.

Note: The same elements of the safety management system that are used in the Safety Manual should be employed here, and are repeated here for convenience.

- |  |   |
|--|---|
| <input type="checkbox"/> Incident Investigation                                  | <input type="checkbox"/> Management Review                    |
| <input type="checkbox"/> Non-Conformance/CAPA                                    | <input type="checkbox"/> Monitoring and Measurement           |
| <input type="checkbox"/> Internal Audits   | <input type="checkbox"/> Operational Control                  |
| <input type="checkbox"/> Consultation, participation and communication           | <input type="checkbox"/> Safety Policy                        |
| <input type="checkbox"/> Emergency Preparedness and Response                     | <input type="checkbox"/> Records                              |
| <input type="checkbox"/> Hazard Identification, Risk Assessment and Risk Control | <input type="checkbox"/> Safety Objectives, Targets and Plans |
|  | <input type="checkbox"/> Roles Responsibility and Authority   |
|  | <input type="checkbox"/> Competence Training and Awareness    |

At this stage, some root causes of the Incident are being identified, and Corrective Actions should be documented to address the identified weaknesses in relation to Hazards and Management System Causes that were identified.

## Section 4 – Investigation Causes

39. Additional factors that contributed to the Incident may be identified by applying the Risk Control hierarchy that is used in the Risk Assessment section.

In simple terms, an Incident happens because there has been a failure in the risk assessment process. For instance, either the hazard was not identified, or maybe the hazard was identified but the control

was either not in place or was not being managed effectively. In this section, it is necessary to identify the risk controls that have failed/could have failed, to ensure that appropriate actions are taken to prevent a recurrence of the Incident.

40. Corrective Actions should be generated for each Root Cause identified throughout the Incident Report and Investigation process. These Corrective Actions should be managed in accordance with the section on Corrective and Preventive Actions in the SSMS Manual.

## Section 5 – Investigation Details/ Root Cause Analysis

41. There are many activities that are undertaken by various personnel at different times during an Investigation. It is important that these are collated in one place, as changes to personnel over time and different document storage locations all make data retrieval in the future a very difficult task. This section requires that all of the details associated with the Investigation are noted, and there are various “prompts” or factors to be considered during the investigation to ensure consistency of approach for all investigations that are undertaken.

Note 1: The various options that appear need to be “selected” to indicate that they were at least considered during the investigation, even if they are not relevant to the particular incident.

Any details that are relevant should be attached or documented in the investigation as required. This will ensure greater consistency in documenting and recording investigations.

42. Determine if the relevant risk assessment has been updated to ensure that the incident will not reoccur.

Note: It is a fundamental requirement of any safety management system to ensure that the risk assessments in the area where the Incident occurred are updated to prevent a recurrence in the future.

43. Verify that the external notifications previously identified as required have been issued.

Note: Records must be kept of all external communications.

## Section 6 – Sign Off

44. This panel is used to sign off the Investigation. The Investigation should be signed off by the following personnel at a minimum:

- The investigators of the incident or near miss.
- The departmental manager and supervisor for the area affected.
- The safety Manager.

45. The Status should be changed to reflect the current status of the Investigation.

# Non-Conformance, Corrective Action and Preventive Action



## Objective

Suppliers must ensure that safety non-conformances can be identified quickly, and corrective and preventive actions implemented, to rectify the issue and prevent a recurrence.

## Expectations

### Non-Conformance

Ensure that actual and potential non-conformances are systematically identified within the safety management system.

### Corrective and Preventive Action

Ensure action is undertaken to address any non-conformances identified so as to mitigate their safety consequences. The reason for the non-conformance shall be established and actions taken to avoid their recurrence. All actions undertaken should be appropriate to the magnitude of the issue identified and the safety risk encountered.

### Documentation

Changes to safety management system document shall be made as required.

### Risk assessment

The risk assessment process shall be used to review proposed changes to the system prior to implementation of the changes.

### Communication

The results of all corrective actions and preventive actions taken shall be communicated as appropriate within the organization.

## Review for effectiveness

The effectiveness of corrective and preventive actions shall be reviewed periodically as part of the continual improvement of the SSMS.

## Introduction

A non-conformance is a failure to comply with some part of the SSMS. Examples of safety non-conformances can include the following:

- Failure to wear personal protective equipment.
- Failure to report defective plant or machinery.
- Training record not available.
- No maintenance schedule provided for extraction system.
- Complaint.
- Leaking oil from compressor on floor.
- No MSDS for a chemical available.
- Non-compliance with a license condition.

The suppliers need to define exactly what is meant by a non-conformance, and ensure that appropriate action is taken to rectify the non-conformance. This action is referred to as the corrective action. When a problem is identified it is not adequate simply to say that a certain action was undertaken and the problem is solved. The safety system must demonstrate that the reason (i.e., root cause) of the non-conformance has been properly identified, and that appropriate action has also been implemented to prevent a recurrence (i.e., preventive action).

In some situations, a POTENTIAL non-conformance may be reported, and in such an instance a preventive action may be implemented without the need for an associated corrective action.

If any action is undertaken, the person to whom the action has been assigned must be clearly identified and an appropriate timeframe established to close off the action.

## Information to help comply with this requirement

Suppliers should use this section of the safety manual to ensure that non-conformances are managed properly in the organization. There are two main parts covered in this section:

### Part 1

How to Report a Non-Conformance

### Part 2

How to Generate Corrective actions and Preventive actions

## Part 1 How to Report a Non-Conformance.

Please refer to Appendix 10 to see the Non-Conformance Form.

### What happened?

#### 1. Description:

Give a one line summary of the non-conformance.

#### 2. Reference Number:

Assign a unique, sequential number to the non-conformance.

#### 3. Type:

Describe the type of the non-conformance, e.g., safety, quality, environmental, etc.

#### 4. Source:

Describe how the non-conformance was identified, e.g., internal audit, external audit, inspection, safety regulator, etc.

#### 5. Description:

Provide details about the non-conformance. The language used should be simple so that a stranger would understand what the problem or potential problem is. It should also be impersonal, and avoid finger pointing. It should include reference to any evidence that may exist (e.g., a procedure, etc.), and identify any trends that may be present.

#### 6. Remedial Action:

Give details of any remedial action that was undertaken immediately to address the non-conformance. For example, if there was a spill then maybe the area was secured and the supervisor notified.

### When did the non-conformance happen?

#### 7. Date and Time:

Record the date and time that the incident occurred and was reported.

#### 8. Location:

Record the site, department and area where the non-conformance was observed.

### Notify the following people?

#### 9. Notification:

Enter the Names of the relevant personnel who should be notified, i.e., "Reported by," "Reported to," "Department Manager," and "Department Supervisor."

#### 10. Corrective Action Required:

Determine if a corrective action should be generated to ensure address the non-conformance. If a corrective action is generated, then the related non-conformance reference number should also be noted so that there is traceability in the process. For example, the first and second corrective actions assigned against non-conformance N123 could be N123-1 and N123-2.

#### 11. Status:

The status of the non-conformance should stay "Open" until such time as it has been adequately addressed. This may mean the status stays "Open" until the associated corrective action is closed as well. The status of the non-conformance would then change to "Closed."



## Part 2 How to Generate a Corrective Action and Preventive Action (CAPA)

Please refer to Appendix 11 to see the corrective and preventive action form.

What happened?

12. Created By/Date:

Enter the name of the person who created the corrective action and the date it was created.

13. Description of Non-Conformance:

Give a one line summary of the non-conformance.

Note 1: This information should already be documented in the non-conformance report. As an example, it could state that "Manual handling training records for a temporary employee were not available."

Note 2: It is possible to create a few different corrective actions to a particular non-conformance.

14. Reference Number:

Assign a unique, sequential number to the corrective action. For example, the first and second corrective actions assigned against non-conformance N123 could be N123-1 and N123-2.

15. Type:

Describe the type of the corrective action, e.g., safety, quality, environmental, etc.

16. Category:

The category is chosen to determine how long the person assigned the corrective action has to complete the task.

Note: Categories could be described as Critical, Major, or Minor and the associated timeframes for completion could be 7 days, 30 days, and 60 days respectively.

17. Target Date:

Depending on the category of corrective action chosen above, the timeframe for completion must be entered. The baseline date is the date that the corrective action was created.





**18. Responsible Person:**

Enter the name of the person to whom the corrective action is assigned to.

**19. Grouping:**

Assign a relevant grouping to the corrective action so that they can be analyzed by reports more easily. Examples of groups include engineering, administrative, training, monitoring, PPE, first aid, etc.

**Sending the corrective action for the first time**

When the corrective action is sent for the first time, the corrective action box should contain specific details about what needs to be completed. For example, "Update the training procedure so that it covers induction of temporary employees as well as full time employees." The root cause and preventive action boxes are left empty.

**Actions to be taken by the person who was assigned the corrective action**

When the recipient receives the corrective action, they will update the task to state that

it has been completed. In the example given, it may read "Training Procedure has been updated to cover both temporary and permanent employees."

The person to whom the corrective action was assigned must determine the Root Cause and Preventive Actions as described below.

**20. Root Cause:**

When the person who was assigned the task has completed the corrective action, they then need to complete this section.

It is very important to identify the root cause of the problem to clarify why the non-conformance arose in the first place.

In the example given, it may state that the existing training procedure only referred to permanent employees, but that the scope of the procedure must be changed to address the requirements of the new SSMS to include temporary employees.

**21. Corrective Action:**

When the corrective action is being sent to the assigned person for the first time, the language used should reflect that a job needs to be completed, and it should be kept simple and concise, but with enough information for the person to complete the required tasks.

When the person who was assigned the action has completed the task, they should be able to

update the information to state the task has been completed, and provide any additional information as necessary.

**22. Preventive Action:**

Give details of any preventive action that was undertaken to address the non-conformance. In the example given, it could state that "The training procedure has been updated, the new version circulated to all relevant persons and training provided on the changes."

Note: In some situations, a POTENTIAL non-conformance may be reported, and in such an instance a preventive action may be implemented without the need for an associated corrective action.

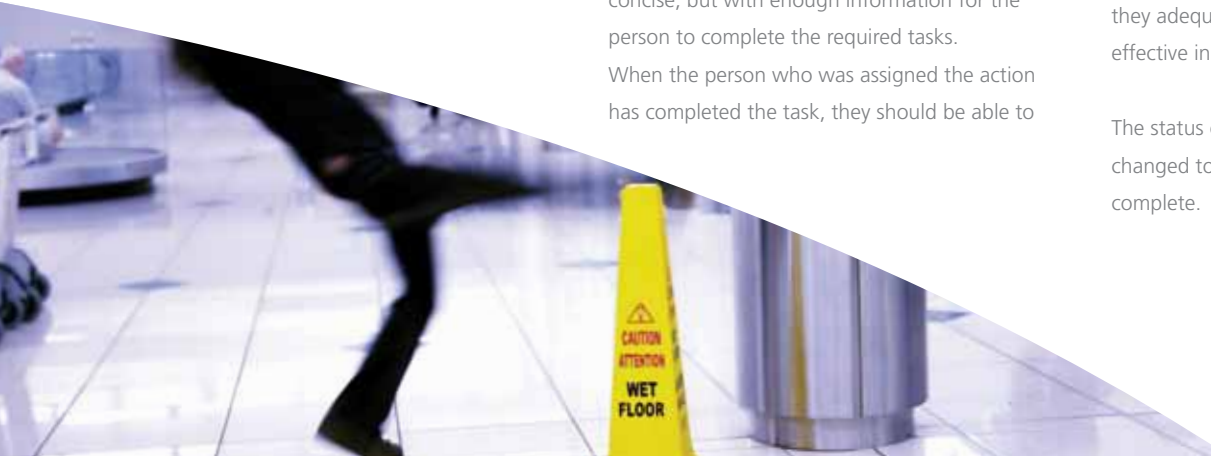
**23. Status:**

The status of the non-conformance should stay "Open" until such time as it has been adequately addressed. This may mean the status stays "Open" until the associated corrective action is closed as well.

**24. Verification of Close Out:**

It is important that the relevant manager for the area has a final review of the non-conformance and associated corrective action(s), to ensure that they adequately address the problem and are effective in preventing a recurrence of the issue.

The status of the corrective action should be changed to "Closed" when the process is complete.



# Internal Audit

## Objective

Suppliers shall perform regular audits of their safety management system to ensure that it is operating effectively. Results of these audits shall be made known to management and reviewed through the management review process.

## Expectations

### Scope

The scope of the audit program should ensure that the SSMS conforms to planned arrangements, is being properly implemented and maintained and is effective in meeting the requirements of the organizations policy and objectives.

### Audit Schedule

A schedule of internal audits must be developed and managed, and the audit program should be based on the results of risk assessments as well as the results of previous audits. All sections of the safety manual must be audited at least once per year.

### Method

The audit methodology must be clearly defined to ensure that the planning, operating, reporting and follow up phases are managed effectively.

### Responsibilities and competence

The internal audit process should ensure that the responsibilities, competencies, and requirements for planning and conducting audits, reporting results and retaining associated records are clearly defined.

## Periodic review

The internal audit program must be periodically reviewed, and the results of all SSMS audits must be reported to management via the management review process.

## Introduction

Audits are an essential part of the safety management system. They are used to demonstrate that the organization understands the requirements of the management system, and can proactively identify areas for improvement within the system as part of its continual improvement program.

The basic requirement of the management system is that each section of the safety manual will be audited at least once per year. If many issues are found during some audits, then additional audits may be undertaken to help get that part of the system working effectively again as soon as possible. An audit schedule must be created that shows the date that each section of the safety system will be audited over a 12 month period. It is important that the schedule covers as many areas of the site as possible. If some areas are not audited against a particular section in a given year, then they can be scheduled for audit the following year and so forth, so that over a period of time all sections of the manual are covered in all areas.

Before the audit begins, it is important that the lead auditor, auditor and auditees are chosen. The audit plan will record all of these details,



along with the scope of the audit, the date and location. It is said that 80% of the time spent on an audit should be in the preparation stage, and that the other 20% is spent completing the audit. The Audit Checklist is used to record the information that will be reviewed, and also to record the information that was found during an audit.

The Audit Report is the detail of what was found during the audit. It presents an overall summary of the audit findings, as well as any positive aspects noted during the audit. The report must also identify non-conformances identified during the audit and their associated corrective actions. Observations may also be recorded for future consideration.

The audit report needs to be signed by the lead auditor and the manager of the relevant department, and distributed as required to relevant persons.

## Information to help comply with this requirement

Please refer to Appendix 12 to see a sample Audit Report form.

### Part 1 AUDIT PLAN What type of audit?

#### 1. Reference Number:

Assign a unique, sequential number for the audit.

#### 2. Title:

Give a title to the audit that briefly describes the audit.

#### 3. Type:

Describe the type on audit being undertaken, e.g., safety, quality, environmental, etc.

#### 4. Scope of Audit:

Determine the range of activities that are the focus of the particular audit. The scope includes all areas of importance in an audit, and the relevant sections of the safety manual that are been audited.

#### 5. Source:

State whether the audit is internal or external.

### When will the audit happen?

#### 6. Planned Date:

Record the date and time that the audit is scheduled to take place.

Note: the planned date for the different audits is used to determine the audit schedule. An audit schedule should highlight when a particular audit is going to be undertaken, the section of the SSMS that will be audited, and the area where the audit will take place.

#### 7. Actual Date:

Record the actual date the audit occurred.

### Where will the audit happen?

#### 8. Site/Location/Department:

Record the site, location, department and area where the audit will take place.

#### 9. Department Manager:

Enter the name of the department manager.

### Who will do the audit?

#### 10. Lead Auditor/Auditor:

Enter the names of the relevant personnel who will be required for the audit and who should be notified, i.e., Lead Auditor, Auditor(s).

Note: a lead auditor has ultimate responsibility for the audit and must co-ordinate the activities of the other auditors.



11. Auditees:

Enter the names of the auditees, i.e., the personnel being audited.

Status of the Audit?

12. Status of Audit:

Enter whether planned, in progress, completed or closed.

13. Result:

If scores are being used for each answer that is recorded in an audit, then the data can be normalized and an overall audit result could be determined. For example, fail (0-39%), pass (40-54%), good (55-74%) or excellent (75-100%).

## Part 2 CHECKLIST QUESTION & ANSWER

14. Outstanding Issues from previous audits:

Before a new audit is started in a particular area, it is important to check the status of any outstanding issues since the last audit (if any) was performed in the area. If there are outstanding issues, then they may be carried forward into the current audit, and the previous audit could then be closed off.

15. Section / Question / Answer:

Prepare a summary of the questions that need to be asked during the audit. If the audit is determining compliance with a clause of a standard, e.g., OHSAS18001, then the requirements of that clause can be turned into questions with answers such as "Yes," "No," etc. For other types of audits, a useful tool for helping to decide what questions to ask are what is known as the reporter's questions: What? Why?



When? Where? Who? Which? How ? These can be combined with questions about the process, the place, the product and the people. Using this approach, an auditor should never be short of questions to ask!

For each question that is asked, it may be possible to determine what answers are to be expected for that question, and assign a numerical value to the answer. For example, a good answer may be awarded 10 marks and a bad answer may be awarded 0 marks. The overall score at the end of the audit could be normalized out of 100% and an overall audit score determined as above.

### Part 3 AUDIT REPORT

#### 16. Overall Audit Summary:

Provide a brief summary of the audit. It should be clear from the summary what the overall audit achieved, and the outcome relative to the audit objective.

#### 17. Strengths:

Audits by nature tend to be a negative event. It can appear that the only objective is to find problems. To present a fair and balanced report on the audit, it is essential that all of the positive aspects (and often times the predominant findings are positive) are highlighted in the audit report.

#### 18. Areas for Improvement:

The audit will probably identify things that need to be improved. These areas for improvement should be recorded as audit Non-Conformances, item by item, in this section of the Audit Report. The information recorded should be written for the benefit of a stranger, who will be able to understand exactly what the problem is.

Corrective Actions must then be assigned to each of the non-conformances identified in the audit report.

#### 19. Observations:

Enter the details of any observation made during the audit. An observation is something that is not a non-conformance, but could be considered as a future improvement. Corrective actions are not necessary to address observations.

### Part 4 AUDIT SIGN-OFF

The lead auditor should sign the report to indicate that it is complete.

#### 20. Lead Auditor:

Enter the name of the Lead Auditor.

#### 21. Sign Off:

Enter whether Accepted Rejected and the Date.

#### 22. Auditor Comments:

Enter relevant comments.

The departmental manager should sign the report to indicate that it is complete.

#### 23. Manager:

Enter the name of the Manager.

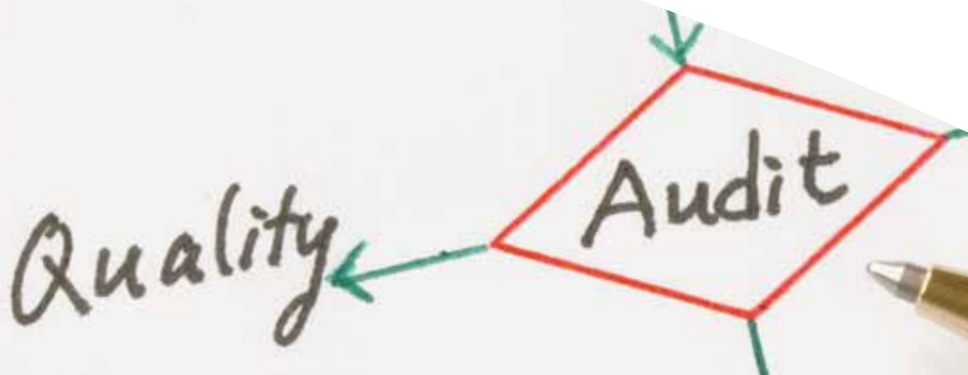
#### 24. Sign Off:

Enter whether Accepted Rejected and the Date.

#### 25. Management Comments:

Enter relevant comments.

26. It is up to the department manager to ensure that all corrective actions arising from the audit are actioned appropriately and closed out in the relevant timeframe by the personnel involved. The Lead Auditor should ensure that the audit is "Completed" once all the actions arising from the audit have been closed off.



# Management Review

## Objective

Suppliers shall ensure that a management review is conducted at least annually to review the continuing suitability and effectiveness of the system. The review shall cover all sections of the SSMS, and any necessary actions will be undertaken as quickly as possible to ensure the continual improvement of the system.

## Expectations

### Review Inputs

The inputs required for the management review process must be clearly defined in the form of an agenda for the meeting.

### Review Outputs

Any outputs from the meeting shall be auctioned as necessary through the non-conformance, corrective and preventive action system.

### Communications

Minutes shall be maintained from the management review, and relevant information shall be communicated across the organization as required.

### Responsibility

It is the responsibility of the managing director to ensure that the review meeting occurs. All senior managers or their delegates must attend.

### Periodic review

The management review process should be periodically reviewed to ensure its continuing effectiveness in meeting the organization's requirements.

## Introduction

The management review process can be considered as a high level view of the entire SSMS. Each section of the SSMS has an important part to play in ensuring the overall system is working effectively. By considering each section of the system at the review meeting, management can make decisions as to what changes need to be made (if any) to ensure the system will continue to work effectively.

Management reviews must occur at least annually. Each manager should prepare a summary of their performance under the various sections (see Continual Improvement), and much preparation can be done in advance of the management review to allow the actual review meeting to be completed in a timely manner. Focus should not be on the specific detail of any particular section, but more on determining what can work better: for example, there may have been 24 training courses planned, but only five were delivered. Why? What can be done to improve this? Was it an unrealistic target? Was the necessary financial commitment not made, etc. The focus of the review is NOT about the detail of the specific courses, this should be covered elsewhere via audits and risk assessments, etc.

The SSMS will not survive without clear commitment from senior management. This section of the manual is where that commitment needs to be clearly evident.

## Information to help comply with this requirement

Suppliers should use this section of the safety manual to ensure that management reviews are managed properly in the organization.

Senior management shall, at least once per year, review the health and safety management system to ensure its continued suitability, adequacy and effectiveness. All departmental managers or their representatives shall attend this review meeting.

The health and safety management system review covers such areas as the following:

- i. The suppliers Health and Safety Policy. The review shall consider the continuing suitability of the Health and Safety Policy and whether it should be changed in the light of changing legislation, changes in the products/ activities/services of the organization and the company's commitment to continual improvement. In addition, corporate health and safety requirements will be reviewed.
- ii. The supplier's safety manual.
- iii. Review of safety hazard identification, risk assessment and risk control process.
- iv. Pending and actual changes to health and safety legislation.
- v. Safety objectives, targets and plans, and overall performance.
- vi. Resources, roles, responsibility, accountability and authority.
- vii. Competence, awareness and training.
- viii. Communication, participation and consultation arrangements.
- ix. Health and safety documentation.
- x. Control of documents.
- xi. Operational controls.
- xii. Emergency preparedness and response.
- xiii. Performance measurement and monitoring.
- xiv. Evaluation of compliance.
- xv. Accidents, incidents, dangerous occurrences, investigations, corrective and preventive action.
- xvi. Data analysis of trends to identify strengths, weaknesses and opportunities for improvement.
- xvii. Control of records.
- xviii. Any third party safety and environmental audit reports, findings and follow up actions.
- xix. Internal safety and environmental audit reports, findings and follow up actions.
- xx. Health and safety achievements.
- xxi. Any other agenda items requested by the attendees.
- xxii. Previous minutes.

Minutes of the SSMS review meeting must be kept and relevant parts made available for communication and consultation.

The outputs from management reviews must be consistent with the supplier's commitment to continual improvement and include any decisions and actions related to possible changes to do the following:

- a) Health and safety performance.
- b) Health and safety policy and objectives.
- c) Resources.
- d) Other elements of the health and safety management system.

# Continual Improvement

## Objective

Suppliers can only achieve excellence in their SSMS through the continual improvement process. The SSMS shall be capable of demonstrating continual improvement in all parts of the system.

## Expectations

### Measurement objectives

Specific objectives must be defined against which the management system can be assessed.

### Responsibilities

Each manager is responsible for demonstrating the continual improvement of the safety system in their own department or process.

### Periodic review

Periodic evaluations must be undertaken of the continual improvement process to confirm that it continues to be suitable and effective for the organization.

## Introduction

Suppliers must demonstrate continual improvement within their SSMS. The safety policy and its associated objectives are based around commitments to continual improvement. The different sections in the SSMS can be used to generate useful data that can demonstrate continual improvement. Examples are included

in this section, e.g, from reports on the reduction of hazards and risks, monitoring progress of objectives and plans, corrective actions, audits, inspections and reviews.

## Information to help comply with this requirement

Suppliers should use this section of the safety manual to demonstrate that their continual improvement process is compliant with the requirements of the safety manual.

### 1. Identification of Hazards, Assessment of Risk and Control of Risk

- Total number of high risks per department compared to the previous 6 and 12 month periods.
- Total number of required controls completed and overdue per department.
- Total number of risk assessments completed versus plan.

### 2. Objectives, Targets and Plans

- Total number of plans overdue and complete by department.
- Total number of new plans per department.





### 3. Resources, Roles, Responsibility, Accountability and Authority

- Number of times these were reviewed with relevant persons.

### 4. Competence, Training and Awareness

- Total number of training courses completed versus plan.

### 5. Communication, Participation and Consultation

- Total number of times poor communication was identified as a root cause in an incident or CAPA.

### 6. Operational Controls

- Number of times each procedure has been reviewed.
- Average time taken to review a procedure.
- Number of times a particular procedure has been involved with incident reporting.

### 7. Emergency Preparedness and Response

- Total number of evacuations versus plan.

### 8. Monitoring and Measurement

- Number of monitoring or measurement tasks completed late, not completed or overdue per department.

### 9. Incident Investigation

- Total number of accident and near misses versus plan.
- Accident frequency rate and severity rate.
- Reduction in incidents in areas where risk assessments have improved.

### 10. Nonconformity, Corrective Action and Preventive Action

- Total number of non-conformances, corrective and preventive actions versus target.
- Total number of non-conformances, corrective and preventive actions versus previous 12 months.

- Total number of non-conformances, corrective and preventive actions closed late.
- Total number of non-conformances, corrective and preventive actions closed early.
- Total number of repeat non-conformances, corrective and preventive actions.

### 11. Internal Audit

- Total number of audits versus plan.
- Total number of outstanding corrective actions from previous audit per each new audit.

### 12. Management Review

- Total number of actions outstanding from last review.
- Total number of management reviews completed.



# Appendices

## Appendix 1

### CHECKLIST FOR HAZARD IDENTIFICATION

#### PLEASE COMPLETE THE FOLLOWING SECTIONS

(use attachments if necessary)

Location/Activity/Job/Task: \_\_\_\_\_

What Are The Main Processes In The Area:


List The Main Chemicals, Machines and Workstations In The Area:


Please complete the following hazard identification checklist by ticking the appropriate hazard. The relevant risk assessment should be completed for each hazard identified using the Hazard Identification, Risk Assessment and Risk Control form.

		Comments
1	<b>FALLS OR FALLING OBJECTS</b>	
(a)	Use of Access Equipment	_____
(b)	Falls of people from a height	_____
(c)	Falls of objects from a height	_____
(d)	Slips, trips or falls on the level	_____
2	<b>MANUAL HANDLING</b>	
(a)	Risk of injury from a single incident	_____
(b)	Cumulative effect of handling loads over a period	_____
3	<b>PORTABLE HAND TOOLS</b>	
(a)	Unsuitable/inappropriate use	_____
(b)	Poorly maintained	_____
(c)	Inherently dangerous eg knives	_____
4	<b>MACHINERY &amp; PLANTS</b>	
(a)	Dangerous machinery, entrapment, entanglement	_____
(b)	Ovens, furnaces	_____
(c)	Refrigeration plant	_____
(d)	Pallet Stacker	_____

5	<b>VEHICLES</b>	
(a)	Fork Lift Trucks	_____
(b)	Free moving (on premises and public roads)	_____
6	<b>FIRES</b>	
(a)	Process	_____
(b)	Materials in use or storage	_____
(c)	Fire prevention and detection	_____
(d)	Burn hazards	_____
(e)	Electrical	_____
7	<b>EXPLOSIONS</b>	
(a)	Pressure, air, steam, etc.	_____
(b)	Chemical reactions	_____
(c)	Dust clouds	_____
(d)	Implosion	_____
8	<b>CHEMICAL/DUSTS</b>	
(a)	Asphyxiating	_____
(b)	Toxic, very toxic, harmful or irritant	_____
(c)	Corrosive	_____
(d)	Dermatitis	_____
(e)	Carcinogenic, teratogenic or mutagenic	_____
(f)	Sensitizing	_____
(g)	Other	_____
9	<b>BIOLOGICAL AGENTS</b>	
(a)	Contact with animals	_____
(b)	Infections carried by animals	_____
(c)	Microorganisms, e.g., Legionnaires' Disease, hepatitis	_____
(d)	Contact with poisonous plants	_____
(e)	Human blood or body fluids	_____
10	<b>RADIATION</b>	
(a)	Ionizing, e.g., x-rays, radon	_____
(b)	Non-ionizing eg ultra-violet, infrared microwave	_____
(c)	Lasers	_____
11	<b>ELECTRICITY</b>	
(a)	Shock/burns	_____
(b)	Explosion	_____
(c)	Work on live electrical equipment	_____
(d)	Lightning	_____
12	<b>PRESSURE</b>	
(a)	High	_____
(b)	Low (e.g., vacuum)	_____
13	<b>THERMAL ENVIRONMENT</b>	
(a)	Heat Stress	_____
(b)	Cold Stress	_____
14	<b>NOISE AND VIBRATION</b>	
(a)	Noise	_____
(b)	Vibration	_____

- 15      WORKSTATION/ERGONOMICS      \_\_\_\_\_
- 16      LONE WORKING      \_\_\_\_\_
- 17      ENTRY INTO CONFINED SPACES      \_\_\_\_\_
- 18      SHARP OBJECTS
- (a)      Hypodermic Needles      \_\_\_\_\_
- (b)      Glassware/glass      \_\_\_\_\_
- (c)      Other, e.g., sharp edges      \_\_\_\_\_
- 19      WORKING ENVIRONMENTAL
- (a)      Inadequate lighting      \_\_\_\_\_
- (b)      Ventilation      \_\_\_\_\_
- (c)      Restricted access and egress      \_\_\_\_\_
- (d)      Poor house keeping      \_\_\_\_\_
- (e)      Inadequate space      \_\_\_\_\_
- 20      WELDING
- (a)      Electric      \_\_\_\_\_
- (b)      Oxyacetylene      \_\_\_\_\_
- 21      FOREIGN TRAVEL      \_\_\_\_\_
- 22      SECURITY
- (a)      Personnel      \_\_\_\_\_
- (b)      Property      \_\_\_\_\_
- (c)      Violence      \_\_\_\_\_
- 23      ANY OTHER NOT LISTED BELOW
- (please give brief details, e.g., flooding)      \_\_\_\_\_

Assessor: \_\_\_\_\_

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

Appendix 2

## HAZARD IDENTIFICATION, RISK ASSESSMENT AND RISK CONTROL FORM

Location/Activity/Job/Task: \_\_\_\_\_

Responsible Person: \_\_\_\_\_

Assessment Completed by: \_\_\_\_\_

Job Title: \_\_\_\_\_ Date: \_\_\_\_\_

ID	Hazards/ Risks	TIMING (R/NR/E)	Personnel at risk from hazard	Current Control Measures	Likelihood (L)	Severity (S)	Risk (LxS) (A= Acceptable)	Additional Control Measures Required (if any)	Person(s)/Responsible/ Date	Objective
	Hazard Description:  Consequence:			Eliminate: Substitute: Engineering: Administrative: Training: Monitoring: PPE:				Eliminate: Substitute: Engineering: Administrative: Training: Monitoring: PPE:		
	Hazard Description:  Consequence:			Eliminate: Substitute: Engineering: Administrative: Training: Monitoring: PPE:				Eliminate: Substitute: Engineering: Administrative: Training: Monitoring: PPE:		

Objective 1.0	To develop and improve a site-wide safety management system (SMS) in accordance with safety regulations.			
Rationale	The development and implementation of an improved and formalized SMS will provide a structured framework for co-ordinating site-wide safety management affairs. This SMS will also sustain the organization's policy of continual improvement.			
NO.	Target	Plan	Time scale	Responsibility
1.1	To establish and maintain a site-wide SMS.	Development of an SMS based on the requirements of the OHSAS18001 Pre-certification audit Final audit	October 2012 December 2012	Safety Manager
1.2	To ensure that preventative maintenance is effected on all safety related equipment	List of critical safety equipment will be developed. Operation of the maintenance system	December 2011 March 2012	Engineering Manager
1.3	To review the requirement for safe walkways at this site	Review the access routes at the site and develop safe walkways where required.	Completed (July 2011)	Safety Manager
1.4	To align the HR Training procedures with the safety management system	To ensure that the current procedures and records for raining are expanded to include all health and safety training requirements.	April 2012	HR Manager

## Appendix 4

# SAFETY ORIENTATION BOOKLET

All personnel, new hires, contractors and visitors must read the following safety information and understand their responsibility to demonstrate safe working habits in all job assignments.

### EMERGENCY PROCEDURES

#### Exits and escape plans

- Know the emergency escape plan for fires, floods, etc.
- Know where emergency exits are located and how to open them.
- Know where to go if there is an evacuation - designated gathering area, etc.

#### Fire extinguishers

- Know how fire alarm system works, and how to respond.
- Know where fire extinguishers are located.
- If appropriate, get training on how to operate fire extinguishers properly.

#### Other emergency equipment

- Know the location of first aid kits.
- Know which employees nearby are trained in first aid or CPR.

#### In case of accident

- Notify the supervisor immediately if you are injured.
- Follow the supervisor's instructions for getting medical care, first aid, emergency room, etc.

### PHYSICAL DEMANDS

#### Lifting, carrying, and bending

- Do not lift or carry more than a comfortable weight.
- Seek assistance for large, heavy, or bulky objects. Use hand-powered lifting equipment if available. (Youth under 18 may not use powered lifts or hoists.)
- Bend your knees to pick up objects. Keep your back straight. Use the strength in your legs, not your back.
- When lifting, get leverage by pivoting your body forward.

- Remember that large objects can restrict your view.

#### Reaching above shoulders

- Heavy items should be stored at waist level, where possible.
- Avoid reaching above your shoulders to lift heavy items. The strain is placed mostly on your shoulders, which have less strength than your back muscles.
- You have less control of heavy objects if they are above shoulder height.

#### Protection from falls

- Never use a box, chair, file cabinet or table for climbing purposes. Use a ladder or step stools.
- Any time you see a spill, clean it up right away, or report it to the appropriate person for cleanup.
- Always use handrails on stairways. All stairs should have standard railings.
- Make sure you can see where you are going. Watch for (and clean up) tripping hazards.

#### Sitting or standing for long periods

- When sitting, make sure your lower back is supported and chair is at a correct height.
- Take breaks and move around to stretch or rest your legs and feet.
- Wear comfortable shoes.

### OFFICE HAZARDS

#### Computers

- Adjust your workstation to fit your body comfortably.
- When viewing your monitor for long periods of time, avoid keeping your head in a fixed position and your eyes in fixed focus. This can strain the eyes, neck, shoulders and back.
- Take 30 seconds "micro breaks" periodically. Stretch your arms, shoulders, and back. Roll your head from side to side.
- Do tasks away from the computer periodically to rest your eyes and body.

#### Telephones

- Don't cradle the handset between your head and shoulder.
- Keep the cord straight and avoid tangles.
- Be sure telephone cords are placed where no one will trip over them.

#### Paper cutters

- Keep the safety guard in place.
- Keep the blade in a locked position when not in use.
- Keep your fingers away from the edge of the blade.
- When cutting, bring the blade down in a slow, steady motion.

#### Paper shredders

- Avoid loose clothing. Your sleeves, shirt tail, or tie could get caught in the shredder.
- Don't place your fingers near the cutting area to insert or remove objects.
- Read instructions (or ask) about the maximum number of sheets the machine can take.

### ELECTRICAL SAFETY

#### In offices

- Don't touch the metal prongs when you plug in or unplug cords.
- Place electrical cords where no one will trip over them.
- Don't overload outlets or circuits with too much electrical equipment. The wiring may overheat and cause a fire.

## Appendix 5

# GOOD WORK PRACTICE

The supplier shall, as far as is reasonable and practicable, ensure that all other persons on the premises shall do the following:

- Observe safety rules and the instructions given by persons enforcing the safety policy.
- Not work on the premises until they have read, understood and formally accepted the safety rules of the Company.
- Not work on the premises until they have completed the contractor induction program.
- Not work on the premises until they have provided copies of their safety statements.
- Not work on Company premises until they are covered by insurance against any risk.

### Good housekeeping

- Slips, trips and falls are the greatest single cause of accidents at work.
- Keep floors, passage ways, stairs and exits clear of obstructions.
- Clean up any spillage immediately.
- Keep your work place tidy and leave it tidy when you have finished.
- Store tools in their proper places.
- Stack boxes, materials and pallets neatly to avoid toppling over and according to manual handling guidelines.
- When working on gridded floors or at heights, ensure that a "blanket" is used to prevent falling objects.
- Use hazard cones/tape to identify trip hazards.
- Use barriers to physically secure a hazardous area, and hazard tape to indicate that a hazard is present, as appropriate.
- Remove hazard tape/warning signs or barrier equipment when work is complete.
- Ensure that safety helmets are worn when operating near overhead work or when using overhead lifts.

### Accidents

- Provide the contact number in case of emergency.
- Know how to contact a first aider. The list is posted on all notice boards.

- Every accident, no matter how minor, must be reported to your supervisor.
- Near misses or dangerous occurrences must also be reported.
- Reporting a near miss now could prevent an accident in the future.

### Slips, trips and falls

- Ensure that spills are dealt with promptly as per the spill procedure.
- Using the "Danger - Wet Surface" warning sign when cleaning is in progress
- Ensure that trailing cables are identified as a trip hazard and cable covers used as appropriate.
- Keep your work area tidy at all times, it is your responsibility and nobody else's.
- Report dangerous or uneven surfaces to the relevant manager or supervisors immediately.
- Use hazard cones/tape to identify trip hazards.
- Remove hazard cones/tape when the hazard has been removed.
- Use barriers to physically secure a hazardous area, and hazard tape to indicate that a hazard is present, as appropriate.

### Safety access precautions

- A work permit must be acquired for any work related to potentially hazardous activities.
- Don't climb on process machines or equipment.
- Don't climb on chairs, furniture, racking or make shift platforms. Use steps, foot stools or a ladder for access above ground level. Make sure that they are on a firm footing and secured in place.

### Hazardous substances

- The danger from hazardous substances can be either immediate, such as a burn to the skin or long term, such as a skin disorder.
- Be familiar with the precautions associated with hazardous substances such as petrochemicals; caustic soda; acids; welding, fume or wood dust by referring to material safety data sheets as appropriate.

- Know how to deal with any potential spillage or emergency situations.
- Personal Protective Equipment (PPE) is provided for your safety and must be worn as appropriate.
- Wear the correct type of gloves, face and respiratory protection where necessary.
- Know the location of the nearest first aid boxes, first aiders, emergency showers and eye wash units.
- Wash your hands after using any of the hazardous substances and before eating, smoking or going to the toilet.
- Ensure that materials are stored, labelled and segregated properly.

### Working with explosive atmospheres

- All efforts must be undertaken to reduce or eliminate the risks due to flammable atmospheres at the facility. Where it is not possible to reduce the risks associated with flammable atmospheres, suitable precautions must be taken to reduce the risk to both man and the environment.
- All work in zoned areas that could provide a source of ignition requires the use of a hot work permit.
- An initial gas test is required before any work commences.
- Continuous monitors are required throughout the duration of the work.
- A stand-by man must be present at all times.
- Fire blankets, fire extinguishers and hose reels must be present as appropriate.
- Intrinsically safe lighting is used in all zoned areas.
- Zoned areas drawings should be prepared if relevant.
- All new plant and equipment purchased must be compliant with the relevant site zoning requirements (management of change process).
- A lightning protection system should be present on all relevant buildings.
- Static electricity should be minimized through the use of earthing systems and the electrical bonding of equipment, where required.
- A no smoking policy must be in force.
- Dust must be removed or dampened down as much as possible to prevent a dust explosion.



## Lifting

- Back injury is the largest single cause of lost time at work.
- Manual handling training is mandatory for anyone involved in manual handling activities.
- Get into the habit of lifting properly all the time even for “light” lifts.
- Grip with the whole of the hands, back straight, knees bent, feet slightly apart.
- If in doubt, get help, do not take risks.
- If using ladders or other access equipment, ensure that there is no risk of falling objects to personnel below.

## Transport

- Accidents involving transport usually result in major injury.
- **DRIVERS:** Be alert to the presence of pedestrians. Make sure that you can see where you are going, if necessary get assistance, when reversing. Sound your horn when going around corners or through entrances. Do not take passengers on fork lift trucks.
- **PEDESTRIANS:** Stay clear of moving vehicles, especially when reversing. Use pedestrian walkways and entrances where they are designated. Use high-visibility vests to stand-out and be seen.
- **REMEMBER:** Speed limit is 15 kmph or as posted.

## Electricity

- Electricity can cause burns as well as electric shock both of which can be fatal.
- Electricity can cause burns as well as electric shock both of which can be fatal.
- Check tools and equipment for any obvious signs of wear or damage especially cables, plugs and switches.
- Do not attempt to overload sockets seek assistance from the site’s Electrical Safety Officer.
- Do not attempt make shift repairs. If in doubt, do not use the equipment.
- Avoid as much as possible trailing leads that could cause a trip hazard for someone. Take the time and effort to minimize such hazards.

## Process equipment and machinery

- Be familiar with the safe working of any equipment that you work with, especially the start and stop procedures.
- Report any safety hazards to your supervisor, do not attempt makeshift repairs.
- Keep guards in place at all times when the machine is running.
- Do not reach into the machine or past the guards when it is running, it only takes a fraction of a second for an injury to occur.
- Do not have any loose clothing or jewellery when operating machines.
- Switch off the machine before cleaning or clearing obstructions.

## Hand tools

- Hand tools can cause serious hand lacerations or other injuries, most accidents occur because the wrong tool is being used, or the tool is being used in the wrong manner.
- Use the right tool for the job, i.e., the right size and right fit.
- Do not use tools that are worn or blunt.
- Make sure that the handle is tight and secure.
- Make sure that tools with blades are used with the blade pointing away from the body and the other hand behind the blade.

## Working at heights

- Serious injury can occur from falls from even a small distance off the ground.
- All unprotected work 2 meter or above ground level requires a work permit and the use of certain equipment, such as a harness.
- Use a harness as required, and only if you are trained to use it.
- Chin straps must be used on helmets when working at heights.
- Check harness for defects regularly and never use a damaged or repaired harness.
- Ensure platforms above 2 meter in height have 1 meter high guardrails. Mid-rails or brick guards may also be needed. This also applies to tanks and pits.
- All floor openings must be covered or fenced off securely.

## Using ladders

- Do not use steps or ladders without permission.
- Check ladder for defects regularly and never use damaged or repaired ladders.
- Ensure that the ladder is secure by securing it at two points, e.g., at the top, sides or bottom.
- Ensure that ladder has a level and firm footing, never use the rungs as support.
- Use a helper at the base of the ladder if over 6 meter long.
- Extend the ladder to at least 1 meter above the landing space or highest rung in use, unless there is a suitable handhold to provide equivalent support.
- Ensure tools can be carried while both hands are free to grip the ladder.
- Do not place the ladder where there is a danger from moving vehicles, overhead cranes or electricity lines.
- Set the ladder at the most suitable angle, a slope of four units up to each one out from the base.
- Safety hoops and rest stages must be placed on long vertical fixed ladders that are used regularly.

## Using scaffolding

- All scaffolding must only be erected by trained personnel. Please adhere to the following:
  - Ensure that there is a “ScaffTag” signed off within the past week to indicate that the scaffold is safe for use, or that a sign declaring that the scaffold is unsafe for use is prominently displayed.
  - Ensure that the scaffold has an adequate foundation, placed on level firm ground, with baseplates and soleplates where necessary.

Appendix 6

**STANDARD QSI CHECKLIST - GENERAL INSPECTION TOPICS**

DEPARTMENT:	DIVISION:	FACILITY:
LOCATION:		
SAFETY OFFICER:		DATE:

CATEGORIES ADDRESSED IN QSI	DEFICIENCIES	OBSERVATION
<b>1. FIRE PROTECTION/PREVENTION</b>		
Fire Water System	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Hydrants/Monitors	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Fire Hose Stations	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Portable Fire Extinguishers	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Fire Detection Systems	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Fire Alarms	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Water Sprinkler/Spray Systems	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Halon Systems	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Other Fire Suppression Systems	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Equipment Fireproofing	No <input type="checkbox"/> Yes <input type="checkbox"/>	
	No <input type="checkbox"/> Yes <input type="checkbox"/>	
<b>2. PLANT SAFETY</b>		
Tank Areas	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Pumps	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Boilers/Furnaces/Reheaters	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Flares	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Relief Valves	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Catch Basins/Drainage/Sewers	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Vessels/Drums/Columns	No <input type="checkbox"/> Yes <input type="checkbox"/>	
H <sub>2</sub> S/HC Alarms	No <input type="checkbox"/> Yes <input type="checkbox"/>	
ESD Systems	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Control Rooms/Substations	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Rotating Equipment	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Windsocks	No <input type="checkbox"/> Yes <input type="checkbox"/>	
	No <input type="checkbox"/> Yes <input type="checkbox"/>	
<b>3. INDUSTRIAL SAFETY</b>		
Hand/Power Tools	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Scaffolding/Ladders/Stairs	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Excavations	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Chemical Storage/Handling	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Sandblasting	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Crane/Heavy Equipment	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Lighting	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Noise	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Electrical Accessories/Grounding	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Personal Protective Equipment	No <input type="checkbox"/> Yes <input type="checkbox"/>	

### STANDARD QSI CHECKLIST - GENERAL INSPECTION TOPICS

DEPARTMENT:	DIVISION:	FACILITY:
LOCATION:		
SAFETY OFFICER:		DATE:

CATEGORIES ADDRESSED IN QSI	DEFICIENCIES	OBSERVATION
<b>4. PROCEDURES</b>		
Emergency Plan	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Work permits	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Lock Out/Hold Tags	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Gas Testing	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Welding	No <input type="checkbox"/> Yes <input type="checkbox"/>	
First Aid	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Traffic Safety	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Training	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Record Keeping	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Safety Meetings	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Evacuation Plan	No <input type="checkbox"/> Yes <input type="checkbox"/>	
	No <input type="checkbox"/> Yes <input type="checkbox"/>	
<b>5. OTHER/GENERAL</b>		
Haz. Matl/Flammable Storage	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Emerg. Safety Showers/Eyewashes	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Egress/Exits	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Guard Rails	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Fire Doors/Barriers	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Housekeeping	No <input type="checkbox"/> Yes <input type="checkbox"/>	
	No <input type="checkbox"/> Yes <input type="checkbox"/>	
	No <input type="checkbox"/> Yes <input type="checkbox"/>	
Other Checklist Used	No <input type="checkbox"/> Yes <input type="checkbox"/>	
<b>6. PREVIOUS QSI OBSERVATIONS (List those items selected by Loss Prevention for follow-up – Ref. QSI-2)</b>		
	No <input type="checkbox"/> Yes <input type="checkbox"/>	
	No <input type="checkbox"/> Yes <input type="checkbox"/>	
	No <input type="checkbox"/> Yes <input type="checkbox"/>	
	No <input type="checkbox"/> Yes <input type="checkbox"/>	
	No <input type="checkbox"/> Yes <input type="checkbox"/>	

**NOTES:** If additional checklists are used, check the Yes box under Section 5, "Other/General," and attach a copy to this completed QSI "General Inspection Topics" checklist for filing.

SAFETY OFFICER: \_\_\_\_\_

DATE: \_\_\_\_\_

## Appendix 7

### OFFICE SAFETY CHECKLIST

The following office safety rules are presented in checklist form to aid office-based employees in review of their office safety actions, including five (5) key workstation ergonomic behaviors for prevention of cumulative injury/illness.

Office Safety Checklist	
<b>INDIVIDUAL WORKSTATIONS</b> Sufficient ventilation _____ Open floor space _____	<b>ELECTRIC HAZARDS</b> Machines and equipment grounded or double insulated _____ Proper multi-outlet devices used _____ Circuits properly loaded _____ Extension cords - maximum length 3m (10 ft) _____ Power cords, plugs, and wall outlets free from defects _____ Electric switch panels clear 0.9m (30 inches open area) _____ Wiring properly routed _____ Portable heaters prohibited _____ Microwave oven has annual inspection sticker _____
<b>WORKSTATION BEHAVIOR</b> 1) Maintain neutral posture _____ 2) Take regular breaks _____ 3) Keep arms level _____ 4) Keep elbows in _____ 5) Avoid extended reaches _____	<b>FIRE PREVENTION</b> Fire extinguishers properly identified/installed _____ Fire extinguisher tagged with current inspection and hydrostatically tested _____ Fire extinguisher and fire hose unobstructed _____ Fire escapes and routes clear _____ Stairwell fire doors closed by _____ Exits properly marked _____ Sprinkler heads unobstructed _____ Excess paper and trash remove _____
<b>WALKING SURFACES</b> Aisles correctly established and clear (76cm/30in) _____ Tripping hazards cleared (carpets/mats secure) _____ Mats available to prevent slipping hazards _____ Floors dry - not slippery _____	<b>COMMON AREAS</b> External corridors in good repair _____ Stairways clear – uncluttered _____ Restroom in safe/sanitary condition _____ Caution barricade and mats available _____ First Aid supplies available _____ All required notices posted _____ Floors dry - not slippery _____
<b>HALLS, RAMPS, LIGHTING</b> Adequate lighting, suitable for work _____ Ramps have non-slip surface _____ Handrails installed and in good condition _____ Halls kept clear of equipment and supplies _____	
<b>STORAGE AREAS</b> Shelves and file drawers safely loaded _____ Heavy items stored at waist level _____ Heavy storage shelves/files secured _____ Avoid storage within 0.6m (2 ft) of ceiling _____ Noisy equipment isolated _____	
<b>OFFICE EQUIPMENT, TOOLS</b> Chairs (springs, casters, hydraulics) in good condition _____ Fans guarded, secure from falling or tipping _____ Paper cutter blade down and functional _____ Paper shredder machine wont trap fingers _____ Photocopy machine lid in down position _____ Safety step/ladders available _____ Chemicals properly labeled/stored _____ Paper supplies and material safely stacked _____ Scissors, sharp tools stored correctly _____ Mechanical equipment properly guarded _____	

## Appendix 8

**INCIDENT/NEAR MISS REPORT FORM****WHAT HAPPENED?**

Type of damage/loss: People  Products  Property  Environmental  Other

Ref. Number:

Incident Type:

Incident  Near Miss

Incident Classification:

Major  Serious  Minor

Short Description:

Causes:

Process Involved:

How it occurred:

**WHEN DID IT HAPPEN?**

Date & Time Occurred: \_\_\_\_\_ Date and Time Reported: \_\_\_\_\_ Shift: \_\_\_\_\_

**WHERE DID IT HAPPEN?**

Site/Location/Department: \_\_\_\_\_

**NOTIFY THE FOLLOWING PEOPLE?**

Department Manager: \_\_\_\_\_ Area Supervisor: \_\_\_\_\_

Reported By: \_\_\_\_\_ Reported To: \_\_\_\_\_

Comments: \_\_\_\_\_

Note: Please use extra attachments as required for additional information/pictures, etc.

## OTHER INFORMATION

Were there Witnesses? Yes  No

Witness details  
(if relevant):

## INJURED PERSON DETAILS

Employee Name: \_\_\_\_\_ Staff ID: \_\_\_\_\_ Department: \_\_\_\_\_

Type of Incident: Fatal  Non-fatal

Injured Person Type: Full-Time  Part-Time  Contractor  Visitor

Occupation At Time Of Incident: \_\_\_\_\_ Time Performing Job: \_\_\_\_\_

Injury Details (Please select from the list below):

Body Part(s) Injured:

Ankle - Left

Ankle - Right

Arm - Upper - Left

Arm - Upper - Right

Arm - Lower - Right

Arm - Lower - Left

Back - Upper

Back - Lower

Buttock - Left

Buttock - Right

Ear - Left

Ear - Right

Eye- Left

Eye- Right

Face

Finger - Left

Finger - Right

Foot - Left

Foot - Right

Hand - Left

Hand - Right

Head

Hip - Left

Hip - Right

Knee - Left

Knee - Right

Leg - Upper

Leg - Lower

Neck

Nose

Pelvic/Abdominal

Elbow - Right

Elbow - Left

Chest

Multiple Injuries

Shoulder - Left

Shoulder - Right

Stomach

Teeth

Thumb - Left

Thumb - Right

Toes - Left

Toes - Right

Wrist - Left

Wrist - Right

Type of Injury:

- Amputation
- Brain Damage
- Bruising, Grazes, Bites
- Burns - Chemical
- Burns - Electrical
- Burns - Heat
- Burns - General
- Closed Fracture

- Dislocation
- Fracture
- Herniated Disc
- Infection
- Internal Head Injuries
- Internal Injuries
- Laceration
- Concussion

- Open Fracture
- Open Wounds
- Poisoning
- Serious Multiple Injuries
- Sprain, Strain
- Cut, Abrasion
- Contusion
- Asphyxiation

**INJURY REACTION - PLEASE SPECIFY:**

- Assisted by First Aider    Became Unconscious    Required an Ambulance
- Suffer Long Term Loss of Function    Other, please describe: \_\_\_\_\_

**ACTION TAKEN:**

- Sent Home    Sent to First Aider    Sent to Doctor    Sent to Hospital

If first aid or medical treatment was provided, please provide the name(s) of person(s) providing aid, treatment details and location: \_\_\_\_\_

Is the employee back to work?                      Yes                       No

Did the person continue to work after the incident?   Yes                       No

What is the total number of lost working days? \_\_\_\_\_

Was any personal protective equipment:

- Specified?                      Yes    No    N/A     If Yes, please specify type: \_\_\_\_\_
- Made Available?              Yes    No    N/A
- Being Used?                    Yes    No    N/A

Had the person received training for this task?

Yes  No  N/A

Comments from Injured Party (if any):

Sign off for Incident Report:

Name: \_\_\_\_\_ Department: \_\_\_\_\_ Comments: \_\_\_\_\_ Date: \_\_\_\_\_

Name: \_\_\_\_\_ Department: \_\_\_\_\_ Comments: \_\_\_\_\_ Date: \_\_\_\_\_

Name: \_\_\_\_\_ Department: \_\_\_\_\_ Comments: \_\_\_\_\_ Date: \_\_\_\_\_

Name: \_\_\_\_\_ Department: \_\_\_\_\_ Comments: \_\_\_\_\_ Date: \_\_\_\_\_

Is an Incident Investigation Required? Yes  No  To be determined later

Distribution List for Incident Report:

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_

4. \_\_\_\_\_ 5. \_\_\_\_\_ 6. \_\_\_\_\_



## INCIDENT/NEAR MISS INVESTIGATION FORM

### LOSS POTENTIAL

Was the hazard identified in a Risk Assessment? Yes  No

If yes , what is the Risk Assessment ID? \_\_\_\_\_

Were specified control measures in place? Yes  No  N/A

Estimated cost of the incident  SR  USD  EUR :

0-1000  1000-5000  5000-10,000  10,000-25,000  25,000-50,000

50,000-100,000  100,000-500,000  >500,000

Potential for future loss from similar incidents:

	Likelihood	Severity	Loss Potential
People			
Products			
Property			
Environment			

Is this Incident externally reportable? Yes  No

If yes, please specify:

General Directorate of Civil Defense  Ministry of Municipal and Rural Affairs  Regional Municipality

Presidency of Meteorology and Environment  Ministry of Health  Regional Health Authority  Police

Insurance  Other, please specify: \_\_\_\_\_

#### BASIC INVESTIGATION DETAILS - ROOT CAUSE ANALYSIS

Post Incident:

The Incident(s):

Prior to the incident, identify what hazards were present. Did these hazards contribute to the incident?  
(Please refer to the list of hazards in the Suppliers Safety Management System Manual)

Hazard: \_\_\_\_\_

Why it contributed? \_\_\_\_\_

Hazard: \_\_\_\_\_

Why it contributed? \_\_\_\_\_

Hazard: \_\_\_\_\_

Why it contributed? \_\_\_\_\_

Note: Corrective Actions should be generated for each hazard that is identified.  
Some part(s) of the SSMS may have failed and allowed the hazard(s) to be present. Please identify those parts of the SSMS that may have failed and explain why you think they contributed to the incident: Please refer to the Safety Manual for a list of the SSMS sections)

System Element: \_\_\_\_\_ Why did it contribute? \_\_\_\_\_

Repeat for every system element involved.

Note: corrective actions should be generated for each gap in the management system that is identified.

### ADDITIONAL INVESTIGATION DETAILS

What engineering control deficiencies may have caused this incident?

What administrative control deficiencies (procedures, records, signage) may have caused this incident?

What deficiencies in training management may have caused this incident?

What deficiencies in the Monitoring and Measurement program (inspections, audits, calibration and maintenance) may have caused this incident?

What deficiencies in PPE management may have caused this incident?

What human factors may have caused this incident?

NOTE: corrective actions should be generated for each deficiency identified.

### INVESTIGATION DETAILS

Investigation Details:

Relevant Risk Assessment has been updated? Yes  No  N/A

External notification completed & on file? Yes  No  N/A

Please tick the items considered during the investigation:

<input type="checkbox"/> Abnormal Conditions	<input type="checkbox"/> Persons Present
<input type="checkbox"/> Abnormal Work	<input type="checkbox"/> Images
<input type="checkbox"/> Access/Egress	<input type="checkbox"/> Physical Conditions
<input type="checkbox"/> Air Quality	<input type="checkbox"/> Policy
<input type="checkbox"/> Audit Results	<input type="checkbox"/> PPE
<input type="checkbox"/> Biological Agents	<input type="checkbox"/> Previous Incidents
<input type="checkbox"/> Building Conditions	<input type="checkbox"/> Prior Warnings
<input type="checkbox"/> Chemical Agents	<input type="checkbox"/> Process Alarms
<input type="checkbox"/> Cooperation	<input type="checkbox"/> Production Schedules
<input type="checkbox"/> Drawings	<input type="checkbox"/> Risk Assessment
<input type="checkbox"/> Equipment Conditions	<input type="checkbox"/> Security Reports
<input type="checkbox"/> Incident Times	<input type="checkbox"/> Sketches
<input type="checkbox"/> Fire Alarm System	<input type="checkbox"/> Spills
<input type="checkbox"/> Fire Detection System	<input type="checkbox"/> Statements
<input type="checkbox"/> Humidity	<input type="checkbox"/> Temperature
<input type="checkbox"/> Lifting Equipment	<input type="checkbox"/> Training Records
<input type="checkbox"/> Maintenance Records	<input type="checkbox"/> Weather
<input type="checkbox"/> Noise	<input type="checkbox"/> Work Permits

**Investigator(s) Details:**

Name: \_\_\_\_\_ Department: \_\_\_\_\_ Comments: \_\_\_\_\_ Date: \_\_\_\_\_

**Repeat for every investigator involved.**

**Sign-off for Incident Investigation:**

Name: \_\_\_\_\_ Department: \_\_\_\_\_ Comments: \_\_\_\_\_ Date: \_\_\_\_\_

**Repeat for every signature required.**

**Distribution List for Incident Investigation:**

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_

4. \_\_\_\_\_ 5. \_\_\_\_\_ 6. \_\_\_\_\_

Status of the Investigation: Open  Closed

### NON-CONFORMANCE DETAILS

#### WHAT HAPPENED?

Incident Title:

Reference Number: \_\_\_\_\_

Type:

Safety  Quality  Environmental

Source:

Internal Audit  External Audit  Regulator

Legislation  Inspection  Complaint

Description:

Remedial Action:

#### WHEN DID IT HAPPEN?

Date & Time Occurred: \_\_\_\_\_ Date and Time Reported: \_\_\_\_\_

#### WHERE DID IT HAPPEN?

Site/Location/Department: \_\_\_\_\_

#### NOTIFY THE FOLLOWING PEOPLE:

Department Manager: \_\_\_\_\_ Area Supervisor: \_\_\_\_\_

Reported By: \_\_\_\_\_ Reported To: \_\_\_\_\_

Is a corrective action required? Yes  No

If yes, please provided relevant reference number: \_\_\_\_\_

Status of the nonconformance: Open  Closed

**CORRECTIVE AND PREVENTIVE ACTIONS**

Created By: \_\_\_\_\_

Date Created: \_\_\_\_\_

Description of  
Nonconformance:

Reference Number: \_\_\_\_\_

Type:

Safety  Quality  Environmental 

Group:

Engineering  Administrative  Training  Monitoring PPE  First Aid 

Category:

Critical  Major  Minor 

Target Date: \_\_\_\_\_

Responsible Person: \_\_\_\_\_

Root Cause:

Corrective Action:

Preventive Action:

Status of the Corrective Action:  Open  Closed

Verification of Close Out:

I am satisfied that the corrective and preventive actions are in place and satisfactory, and that the relevant risk assessments and safety documents have been updated as necessary.

Department Manager: \_\_\_\_\_ Date: \_\_\_\_\_

## AUDIT PLAN

### WHAT TYPE OF AUDIT?

Reference Number: \_\_\_\_\_

Title:

Type: Safety  Quality  Environmental

Scope of Audit:

Source: Internal Audit  External Audit

### WHEN WILL AUDIT HAPPEN?

Planned Date: \_\_\_\_\_ Actual Date: \_\_\_\_\_

### WHERE WILL AUDIT HAPPEN?

Site/Location/Department: \_\_\_\_\_

Department Manager: \_\_\_\_\_

### WHO WILL DO THE AUDIT?

LEAD AUDITOR: \_\_\_\_\_ AUDITOR: \_\_\_\_\_

AUDITOR: \_\_\_\_\_ AUDITOR: \_\_\_\_\_

### WHO WILL BE AUDITED?

AUDITEE: \_\_\_\_\_ AUDITEE: \_\_\_\_\_

AUDITEE: \_\_\_\_\_ AUDITEE: \_\_\_\_\_

Status of Audit: Planned  In Progress  Completed  Closed

Result: Fail  Pass  Good  Excellent

## CHECKLIST QUESTION & ANSWER

Outstanding issues from previous audits: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Section:

Question:

Answer:

# AUDIT REPORT

## OVERALL AUDIT

Summary:

Strengths:

Areas for Improvement:

Observations:



## AUDIT SIGN-OFF

Lead Auditor: \_\_\_\_\_

Sign Off:  Accepted  Rejected  Date: \_\_\_\_\_

Comments:

Manager: \_\_\_\_\_

Sign Off: Accepted  Rejected  Date: \_\_\_\_\_

Comments:

**SAFETY IS NOT A JOB,  
IT IS A WAY OF LIFE**

**SAFETY RULES ARE  
YOUR BEST TOOLS**



## Materials Supply Safety Excellence Project

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