

# Construction Sector SHE specifications

Sasol Business Enterprise

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### Purpose

Sasol Corporate SHE

The purpose of this procedure is to indicate to all Service Providers the Safety Health and Environmental (SHE) requirements before, during and after construction work, upon which their planning for the effective management of SHE will be based, ensuring that all Project personnel and Site based contracting companies are aware and comply with the SHE rules and regulations for construction contracts.

**Document is applicable to:** All Suppliers of Services, performing tasks under Sasol operational control

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## **DOCUMENT REVISIONS**

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	of services on Sasol Sites

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## 1. Definitions and abbreviations

## 1.1 **Definitions**

	A process to support and enhance our current management
Behaviour Based Safety	process. The focus is on involving people in control of their own
	safety.
	The term "Brownfield Site" means real property, the expansion,
Brownfields Site	redevelopment, or reuse of which may be complicated by the
	presence or potential presence of a hazardous substance,
	pollutant, or contaminant. For the Project, "Brownfields" would
	require a Sasol Work Permit either issued by the SBU or Project
	allocated permit issuer as per the Project Philosophy.
Client	Any person for whom construction work is being performed. (In
Cilett	terms of this specification, Client refers to Group Technology).
	Contractor Project representative appointed as the resident
Construction Manager	construction manager by the Project manager shall be responsible
	for the management of the construction Site.
Construction sector SHE	
	means a Site, activity or Project specific document of all health and
	safety requirements pertaining to the associated works on a
	specific construction Site, so as to ensure the health and safety of
	persons;
	Competent pages and interest in writing who is near a site for the
Construction Supervisor	Competent person appointed in writing, who is responsible for the
,	supervision of construction work.
	Any person or company who tenders to perform construction work,
Contractor	any provider of services, goods or people to Sasol Sites, directly or
	indirectly, and includes: Contractors, sub-Contractors, sub-
Contractor	Contractors, hired labour agency, suppliers, event Contractors,
	consultants and Principal Contractors as traditionally defined. In

	and vice versa.
	Construction Work (Part a) – any work in connection with erection;
Construction Work	maintenance; alteration; renovation; repair; demolition; or
	dismantling of or addition to a building or any similar structure or
	installation.
	Construction Work (Part b) - installation; erection; dismantling or maintenance of a fixed plant where such work includes the risk of a person falling.  Construction Work (Part c) - construction; maintenance; demolition; or dismantling of: any bridge dam, canal, road, railway, runway, sewer, or water reticulation system or any similar civil engineering structure.  Construction Work (Part d) - moving of earth, clearing of land,
	making an excavation, piling or any similar type of work
	The document that prescribes the requirements for work to be
Construction Sector SHE	conducted by a Service Provider in the Petrochemical, Mining or
Specification	Construction sectors. This specification must supplement the
	Generic Sasol SHE Specification
	The term "greenfield Site" was originally used in construction and
	development to reference land that has never been used (e.g.
	green or new), where there was no need to demolish or rebuild any
Green field Site	existing structures. For the duration of the Project, "Greenfield"
	means that a work area is preferably fenced off, signed over the
	Principal Contractor and that a Sasol Permit is not required to
	perform work
Incident	An unplanned event that has an undesirable consequence
	An authorisation to perform work safely on, in or around specific
Permit To Work	equipment, operational facilities or work environment following
	predetermined precautionary measures
Principal Contractor	Is a person overall responsible for the development,
Construction Health and	implementation and maintenance of the Project SHE management
Safety Manager	system for a specific construction Site?
	Means an employer, as defined in section 1 of the Act who
Principal Contractor	performs construction work and is appointed by the Client / Client
	to be in overall control and management of a part of or the whole of
	a construction Site. Contractors /sub-Contractors may also be
	referred to as Service Providers
Radiation Protection Supervisor	Is a person appointed in writing, which is responsible for

	supervising radiation work.
	A measure of potential economic loss, human injury or
Risk	environmental damage (cost) in terms of the probability of the loss,
	injury, or damage over a period of time
	The most basic causes that can reasonably be identified and over
Root Cause	which management has control and for which effective
	recommendations for preventing recurrence can be generated.
Root Cause Analysis	The methodical process to analyse the circumstances and activities
Technique	of an incident with the intention of identifying the root causes. (E.g.
recillique	RCAT).
	A documented plan indicating the corrective actions to be taken to
Recovery plan	address non-conformances identified as well as target dates and
	responsible persons to address the non-conformances identified.
	A file containing the service offering SHE Plan as contemplated by
SHE File	the relevant regulation and/or Client requirements, including the
	documentation necessary to provide proof of compliance
	A documented plan that addresses the practices, methodologies,
SHE Plan	actions, tools, equipment and behaviours to safely execute
	services.
	Any entity or representative thereof that conducts outsourced
Supplier Of Services	services at a Sasol premises and remain accountable for the safe
	execution of such services.
Warks Information / Coord	The work or services to be performed or provided by the contactor
Works Information / Scope of work	or the Client to the Client, or the work to be done on Sasol's
OI WOIK	premises.

## 1.2 Abbreviations

BBS	Behavioural Based Safety
COC	Certificate of Compliance
COID	Compensation for Occupational Injuries and Diseases Act 130/1993
CHSM	Construction Health and Safety Manager
CHSO	Construction Health and Safety Officer
CR	Construction Regulations
DSTI	Daily Safety Task Instruction

EA	Environmental Authorisation
EIA	Environmental Impact Assessment
OHS Act	Occupational Health and Safety Act and Regulations
PC	Principal Contractor
PDA	Potential Deviation Analysis
RFQ	Request for Quotation
SBU	Sasol Business Unit
SHE	Safety, Health and Environment

#### 2. Introduction

This construction sector SHE specification includes the responsibilities and requirements for all Service Providers providing a service on a construction Site including the Site establishment areas.

The practical application and implementation of these requirements shall be discussed and negotiated by the Client, Principal Contractor and or Contractors. The agreed requirements shall form part of the Project specific SHE plan.

This construction sector SHE specification does not indemnify the Service Provider from any legal liabilities / responsibilities that are applicable to the Project.

This construction sector SHE specification will not take precedence over any act or legislation national or otherwise.

This construction sector SHE specification will take precedence over any Project procedures regarding SHE management on Site, unless the opposing procedure is of a higher standard and has been accepted by the Client. Therefore, the more stringent procedure/specification will apply.

The approved and legally binding Project Environmental Management Plan (EMP) will take precedence over any Project or Site procedures regarding environmental management on Site.

The approved and legally binding Project Health Philosophy will take precedence over any Project or Site procedures regarding health matters on Site.

## 3. Scope

This specification is applicable to all Service Providers wanting to render services to Sasol and excludes suppliers of goods.

## 4. Principles of engagement

- 4.1 All Service Providers invited to participate in the bidding process must review the SHE information contained in the Request for Quotation (RFQ) documentation and complete the return schedule document, referred to as the "SHE Tender Phase Document". Copies of relevant documents are indicated and should be included in the submission of the quotation.
- 4.2 The SHE Tender Phase Document serves as a guideline to assist Service Providers to make adequate financial provision for SHE related items in their quotations. The document is furthermore used by Sasol to rate and compare Service Providers according to the information provided.
- 4.3 All Service Providers must ensure that the entire Client's requirements and construction sector SHE specifications form part of any bidding phase and SHE plan approval processes.

## 5. Roles and Responsibilities

#### Construction Project Manager (CPM) appointed 16.2

- 5.1 The person appointed in terms of the OHS Act, section 16.2, is responsible for the overall management of the Project as per appointment requirements.
- 5.2 The appointed 16.2 CPM representing the Principal Contractor shall ensure that:
- 5.3 All Service Providers under his/her direct control comply fully with all relevant legislation, SHE requirements as stipulated in this specification, the SHE plan, SHE scope, construction Site layout and baseline risk assessment, fall protection plan, emergency management plan, environmental management plan and risk mitigation plan.
- 5.4 Ensure that all SHE contractual requirements and construction sector SHE specifications are considered during tender phase and the necessary method statements are included into the Project scope and SHE plan for implementation.
- This SHE plan shall be approved by the Service Provider Construction Manager before final approval by the Client.
- 5.6 Draft a resource utilisation matrix that indicates:

- 5.6.1 The amount of supervision at all times taking into cognisance the risks involved for the Project;
- 5.6.2 The various trades;
- 5.6.3 Job descriptions;
- 5.6.4 Number of personnel reporting to each foreman and/or supervisor;
- 5.6.5 To maintain safe work practices and standards, particularly where less skilled and semiskilled personnel are involved. The ratio shall be agreed with the Client and reflected in the SHE plan for implementation.
- 5.7 All necessary information will be recorded and kept in the Project SHE file that shall be available and maintained during the full duration of the Project and on completion of the Project the SHE file shall be handed over to the Client (i.e. SHE end of job documentation, specified under "Exit criteria").

#### 5.8 Construction Health and Safety Manager (CHSM):

- 5.8.1 The Client will discuss and agree with the Project CHSM of each appointed Principal Contractor a Service Level Agreement (SLA) detailing the deliverables as relevant to the Project. The SLA will include the roles and responsibilities of the appointed CHSM as well as other levels of Safety personnel as is relevant / appointed on the Projec
- 5.8.2 The Client will review the performance of the Project CHSM during intervals as agreed upon at contract award. The Client may make recommendations to the Service Provider where improvement is required.
- 5.8.3 The Client may request the Service Provider to remove/replace personnel where improvement is not made. The removal/replacement of personnel will be done in terms of the contractual process.
- 5.8.4 Compile a construction SHE look ahead plan (included in month report). The SHE look ahead plan will focus on Project specific risk management i.e. equipment, resources per discipline, training, appointments, and trend analysis. The SHE look ahead plan shall focus on the current, 14 days and 30 days activities for the duration of the Project.

#### 5.9 The Project CHSM to:

- 5.9.1 Review tender phase documentation for Project prior to submission;
- 5.9.2 Include CHSM roles and responsibilities in SHE plan;
- 5.9.3 Compile the roles and responsibilities of all SHE personnel reporting to him/her specific for the Project and ensure that monthly performance discussions are conducted.
- 5.9.4 Assist the CPM compile the Project specific SHE plan;
- 5.9.5 Compile Project specific risk assessments;
- 5.9.6 Compiling SHE construction execution strategy (present before execution);
- 5.9.7 Provide a competency matrix (in SHE plan);
- 5.9.8 Provide Project specific SHE personnel pre-training requirements (internal and external in SHE plan);
- 5.9.9 Provide and measure SHE personnel key performance areas (SHE plan);
- 5.9.10 Conduct monthly Site performance assessments (report to Client);
- 5.9.11 Attend injury investigations and injury presentations to Client;
- 5.9.12 Draft trends analysis and forecasting (report);
- 5.9.13 Attend the Project SHE Governance Forum;
- 5.9.14 Investigate all non-conformances and prepare sustainable recovery plans;
- 5.9.15 Check and verify end of job documentation;
- 5.9.16 Arrange Site walks with senior management (monthly); and
- 5.9.17 SHE performance presentation on sustainability (quarterly).

## 5.10 Construction Health and Safety Officer (CHSO):

- 5.10.1 The Service Provider shall appoint as a minimum one full-time CHSO for every 100 employees or as per the level of risk of the works, geographical nature of the construction Site, risk assessment and OHS Act requirements.
- 5.10.2 The Service Provider will present the organisation's SHE personnel organogram during the bidding phase.
- 5.10.3 The CHSO shall be suitably qualified (or equivalent) and experienced to co-ordinate the organisation's SHE efforts on the Site.
- 5.10.4 The CHSO shall provide as part of the SHE file proof of being registered with The South African Council for Project and Construction Management Professions (SACPCMP) as per relevant criteria as indicated in the guidelines of the SACPCMP.
- 5.10.5 A full-time CHSO shall be appointed for night shift (s).
- 5.10.6 SHE resources will be discussed and agreed with the Client during the bid clarification phase. Should the need arise; the Client may instruct a Service Provider at any time to appoint a full/part time CHSO.
- 5.10.7 CHSO shall conduct inspections on Site and use a format that is acceptable to and

- agreed upon with the Client.
- 5.10.8 The Service Provider shall be required to continually monitor all activities under his control and to conduct formal SHE inspections of all such activities on a weekly basis, or as indicated by law, or more frequently where it is considered necessary by the Client.
- 5.10.9 Following each inspection the Service Provider shall produce a report detailing the findings of the inspection which shall be recorded and filed accordingly. On the day following the inspection (before 12:00) a copy of this report will be issued to the Clientt by the Service Provider.
- 5.10.10 All deviations revealed during the inspections shall be noted and rectified as soon as possible and records shall be filed in the Project SHE file.
- 5.10.11 Trends analysis shall be drafted and re-occurrences addressed by issuing a formal non-conformance report, the Client shall officially be informed of all non-conformance reports issued.

## 6. SHE Plan Minimum Requirements and Site establishment

- 6.1 The following are the minimum requirements for the compilation of the construction SHE plan:
- 6.2 The Client will provide the Principal Contractor with a copy of the Environmental Authorisation (EA) and the Environmental Management Plan (EMP) for inclusion in the SHE file.
- 6.3 The Service Provider to include an environmental management in the Project specific SHE plan with specific focus on waste management, pollution control and spillage procedures.
- 6.4 SHE plans must be approved by the specific Principal Contractor's Chief Executive Officer (CEO) 16(1) or appointed 16(2) for the Project on all pages.
- 6.5 The Client shall approve Principal Contractor's SHE plans by using the Regional Service offering SHE Plan Checklist (The SHE plan must be officially transmitted via the Project document control to the CPM with 2 weeks early warning prior to proposed submission.
- 6.6 The SHE Plan will be approved by the Client with a 3 working day turn around.
- 6.7 The Principal Contractor shall not approve any of its appointed Contractors SHE plans, without having their SHE plan approved by the Client.
- The Principal Contractor will provide the Client with copies of all SHE plan approvals done on their appointed Contractors prior to the construction work to commence.
- 6.9 The Client may reject the approval should all items as per the Employer's instruction not be catered for.

- 6.10 No work will be allowed to start without the relevant SHE plans being approved.
- 6.11 The Principal Contractor to provide a detailed Site establishment plan to the Client for review.
- 6.12 The Principal Contractor shall ensure that during Site establishment, facilities, offices and work areas are not exposed to adjacent operational hazards.
- 6.13 The Principal Contractor/sub-Contractor to ensure all offices, store, sheds and facilities to be constructed of sound material and to be neat and tidy at all times.
- 6.14 The Service Provider to ensure all relevant signage is displayed. Refer to next section for detailed requirements.
- 6.15 The Principal Contractor to conduct a Site establishment audit 2 weeks after Site establishment, unless otherwise agreed with the Client. The Principal Contractor to use a suitable Site establishment audit protocol that is accepted by the Client in order to ensure that all aspects are covered.
- 6.16 The Principal Contractor to submit a copy of the Site establishment audit report to the Client.
- 6.17 The Client to conduct a formal Site establishment audit within 3 weeks after Site establishment, unless otherwise agreed with the Principal Contractor. A report detailing the audit findings will be submitted to the Principal Contractor. The Principal Contractor to ensure all deviations is corrected within the agreed time frame. Failure to comply may result in work stoppages and/or formal action to be taken against the Principal Contractor.
- 6.18 The Principal Contractor/sub-Contractor to ensure daily housekeeping inspections is done.
- 6.19 The Client may conduct inspections on a random basis on Site establishment areas. In cases where inadequate care has been paid to cleanliness or safety, the Client may instruct the Contractor to cease work until their Site has been tidled up and made safe.
- 6.20 Failure to comply may result in Site cleaning by another Contractor at the cost of the noncomplying Contractor.
- 6.21 Neither additional cost nor extensions of time to the contract is allowed because of such a stoppage.
- 6.22 All areas transferred to the Service Provider for lay down/Site establishment purposes shall be identified with a construction board and fenced off.
- 6.23 All signage proposed to be discussed and agreed with the Client and must be displayed within the parameters of the transferred Site.
- 6.24 All signage must be maintained and kept in a neat and tidy condition. Over-cluttering of signage will not be allowed.

- 6.25 Due to branding requirements the usage of the Sasol logo is prohibited unless approval is obtained from the Sasol Branding Department via the Client.
- 6.26 All signage erected by the Service Provider shall be removed upon completion of the Project and/or prior to the area being transferred back to the Client.
- 6.27 The following are typical examples of what could be used:

## (Project name and unit number)

Contractor (name)
Responsible Person (name)
Contact Details

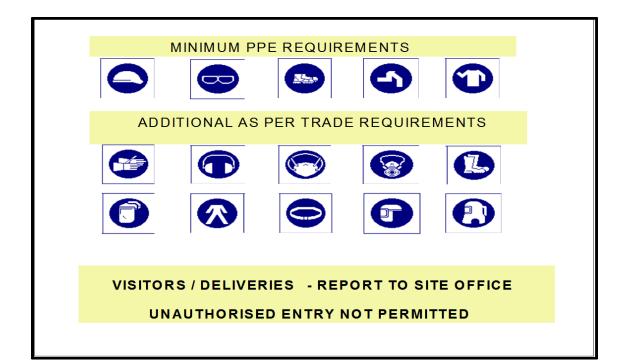
PC Company Logo

- 6.28 The pertinent and prominent display of the construction SHE performance indicators by means of the "Project SHE Performance Board" shall be done and the construction Site manager shall ensure that it is kept up to date.
- 6.29 All Service Providers must display their respective statistics accordingly within their Site office area.
- 6.30 The display of safety banners is not permitted unless approval has been obtained from Sasol Branding via the Client.

Example of SHE performance notice board:

## **PROJECT NAME COMPANY NAME & LOGO** SH&E PERFORMANCE BOARD **ACCREDITED BY AND SAFETY LOGO** Risk Ranking (T1 – T4) Date of Assessment 9T1 -T4 WORK DAY **CASE RATE ACTUAL** LOST WORK DAY CASE RATE **RECORDABLE CASE RATE** HOURS WORKED WITHOUT A LWDC HOURS WORKED WITHOUT A RC DATE OF LAST LWDC DATE OF LAST RC **TOTAL PROJECT HOURS WORKED** TOTAL VEHICLE ACCIDENTS DAYS WORKED WITHOUT A RECORDABLE CASE **TARGETS** LOST WORK DAY CASE RATE **RECORDABLE CASE RATE LWDC FREE HOURS RC FREE HOURS**

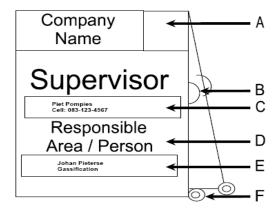
- 6.31 The display of safety banners is not permitted unless approval has been obtained from Sasol Branding via the Client.
- 6.32 Where applicable, the minimum PPE requirement notice boards shall be displayed at the identified areas e.g. entrances to workshops, construction areas etc. See below example:



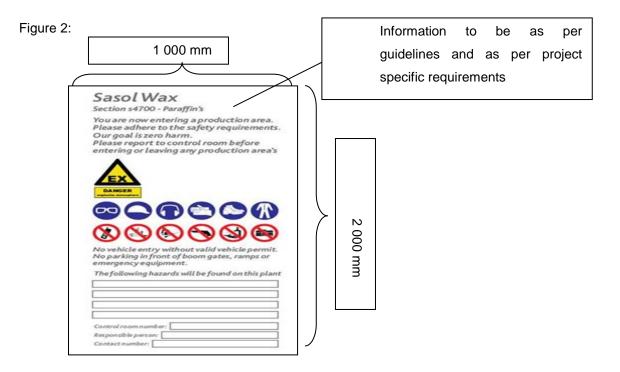
- 6.32.1 Where possible, a Project Site within an operational area (Brownfield's) shall be identified with a construction board (as per examples below). The purpose of the board is to identify the Service Provider working in the area; however, this may not always be possible. Should there be existing signage, the Client will advise the Service Provider regarding the need for additional signage.
- 6.32.2 Should additional signage be required the same guidelines as below pertaining to signage in construction areas will apply.
- 6.32.3 Where possible, a Project Site outside an operational area (Greenfield's i.e. area which has been transferred to the Contractor/outside of a production area) shall be identified with a construction board (as per examples below). The purpose of the board is to identify the Service Provider working in the area; however, this may not always be possible.
- 6.32.4 The type and position of boards to be agreed with the Client.
- 6.33 When deciding on type of boards to use, consider the following:
  - Boards to be weather proof;
  - Made of a strong, durable material (metal, hard plastic, etc.); and
  - Possible size of boards could be 1 000mm high by 500mm wide.

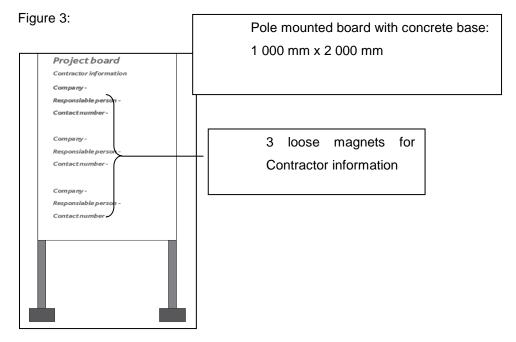
The following are three examples of boards that could be considered:

Figure 1



- "A": water proof pouch to contain the permit to work;
- "B": handles attached so as to avoid personnel from pinching their fingers during handling and transportation of the boards.
- "C" & "E": surface areas to be of such a nature that one can write on them with a permanent marker / white-board marker or slide in information (magnetic strips could also be considered)
- "D": makes provision for the Sasol Representative that has requested the work to be done or the area responsible person (i.e. the permit issuer);
- "F": provides for 4 rings / eyelets to the 4 corners of the boards so that the board can be" pegged down" to prevent it from being blown over;
- Both sides of the board to be marked with the same information;
- Boards can either be hinged or welded as a unit at ± 20 °C.
- If boards are hinged, they should be fitted with a chain to prevent the board from falling flat;





## 7. Medical Fitness

### 7.1 Medical Surveillance

- 7.1.1 Pre-employment medicals and exit medicals are required for all employees that work on construction Sites, the costs of which will be borne by the Service Provider.
- 7.1.2 The Service Provider shall make available a work profile of each employee to the occupational nurse in order to determine whether the employee is medically fit to perform the task he/she is appointed for. This specification/work profile is generally referred to as the man job specification. For example, a general worker should be medically fit to carry out manual handling tasks and lifting items of 20 25 kg. If this is not specified, the medical surveillance conducted on this person would not detect if the person is not able to perform tasks associated with being a general worker.
- 7.1.3 Any person who is on Site for more than one year will be required to go for a reevaluation medical annually upon expiry of the 12 month period.
- 7.1.4 Any person normally working on the Site and subsequently away from Site for more than one year shall be required to undergo another pre-employment medical.
- 7.1.5 Record of all medical surveillance must be kept on Site.

#### 7.2 Welfare Facilities

- 7.2.1 The Service Provider shall identify and budget according to his Project scope for the welfare facilities required on Site. The number of facilities required per worker ration is specified in the Construction regulations. The Service Provider may make additional facilities available; however, the minimum requirements must be complied with.
- 7.2.2 Ablution / welfare amenities to include hand wash facilities (including soap and hand towels).
- 7.2.3 The Service Provider will ensure that all ablution/welfare facilities are kept clean and tidy at all times. Should the Service Provider fail to maintain ablution/welfare facilities in a neat and tidy condition, the Client may instruct the Service Provider to cease work until the facilities have been cleaned. Neither cost nor additional extension of time to the contract will be allowed because of such stoppage. It is further more noted that the Client may also contract a third party to clean the facilities with the cost to be borne by the noncomplying Service Provider.
- 7.2.4 The Service Provider to include a plot plan indicating Site facilities in the SHE Plan.
- 7.2.5 The Service Provider to request exemption from the Department of Labour should any item as required by legislation cannot be complied with.

#### 7.3 **Drinking water**

- 7.3.1 The Service Provider shall ensure adequate provision is made for drinking water on Site as well as in lay down areas taking into consideration that no eating or drinking in operational areas are allowed.
- 7.3.2 Water for drinking shall be drawn only from taps in messing areas at points on Site marked "drinking water". Adequate provision shall be made for suitable containers (cups or similar) for persons to drink water. In addition, provision should also be made for the cleaning of drinking containers/cups. No home-made cups such as cut cool drink cans or plastic bottles will be accepted. The sharing of cups will also not be permitted.
- 7.3.3 No equipment or system shall be connected to the drinking water system without prior approval of the Client. Should any contamination of the drinking water occur the Contractor must report it immediately to the Client. The Principal Contractor must ensure before installation of any utilities such as electricity, water and sewerage the SBU must approve the installation or provision thereof with clear indications and collar codes on.

#### 7.4 General Hygiene

The Service Provider shall ensure general hygiene practices such as the wearing of socks, regular washing of hands and no spitting on site etc. are included in the safety management system and is implemented and monitored on Site.

## 8. Accident and Incident Management

## 8.1 **Project Allocated Paramedic**

- 8.1.1 The Client may provide a trained and suitably qualified paramedic who will be dedicated to the Project. In the absence of a Project Allocated Paramedic, the Sasol Emergency Management System shall be used.
- 8.1.2 When an incident occurs, the paramedic is called to Site to assess the person(s) involved.
- 8.1.3 Pending outcome of the initial examination, the person(s) may be referred for further treatment at the Midland Medical Station.
- 8.1.4 Instances where the person(s) involved require further treatment; the Sasol Emergency Management system will be used. An ambulance will be called (60 3111) for transportation purposes of the injured person(s). Under no circumstances may any person be transported in any other manner except via ambulance.
- 8.1.5 The injured person shall be accompanied to the medical station by the Service Provider supervisor and SHE Safety Officer.
- 8.2 Treatment at the Midland Medical Station

- 8.2.1 The following documentation to accompany the injured person(s) to the medical station:
- 8.2.1.1 Injury report to medical station
- 8.2.1.2 Copy of ID
- 8.2.1.3 Completed Workman's Compensation Letter (WCL 2 form)
- 8.2.1.4 The Sasol injury classifications shall be used as a guide line.

#### 8.3 Accident / Incident Investigation

- 8.3.1 The Managing Director of the Service Provider company to provide formal feedback (in writing) to the Managing Director, Sasol Technology within the prescribed timeframe. All corrective / preventive actions to be included the MD letter.
- 8.3.2 This will be applicable to the following type of incidents/injuries:
- 8.3.2.1 All lost work day cases and more serious incidents will be formally presented to Sasol Technology senior management in Rosebank/Sasolburg. Time frames will be communicated via the Client. Short notice can be expected, depending on the seriousness of injury.

## 9. PPE Requirements

## 9.1 General PPE Requirements

- 9.1.1 All PPE Shall be risk based and fit for purpose.
- 9.1.2 Additional or specialized PPE as per trade should also be considered and comply with the relevant site specific requirements and/or legislation.
- 9.1.3 The wearing of "beanies" underneath hard hats may be permitted, provided that a chin strap is also used to secure the hard hat to the employees' head.
- 9.1.4 The wearing of synthetic hair extensions is not recommended due to the potential fire risk it presents. If synthetic hair is worn, it must be suitably covered.
- 9.1.5 Instances where hair nets are required, the hair net will be made from zero flame material.

#### 10. Security Requirements

#### 10.1 Access Control

10.1.1 The Principal Contractor in collaboration with the Client's representative will ensure that proper access control is in place and functional at all times onto and off the construction Site. All persons entering the Site shall be in possession of a security issued identification

card/permit as well as a card indicating his/her construction Site safety induction attendance.

#### 10.2 Traffic and pedestrian management

- 10.2.1 The Principal Contractor SHE officer shall also in collaboration with the Contractor's safety officers or representative and other appropriate personnel develop a pedestrian and traffic control plan for the Site to ensure the safe movement of all construction related mobile plant, equipment and employees. The plan to include as a minimum:
- 10.2.1.1 Traffic marshals at peak times
- 10.2.1.2 Parking and vehicle management in allocated lay down areas
- 10.2.1.3 Compliance monitoring processes
- 10.2.2 This plan will have to be submitted to the security / traffic control department of Sasol.

#### 10.3 Security arrangements

- 10.3.1 All security requirements shall be highlighted at the induction given by the Principal Contractor. All Service Providers are to strictly adhere to all security requirements on the premises.
- 10.3.2 The Site area allocated to the Principal Contractor by the Client shall be properly enclosed with a suitable security fence approved by the Client and provided with access gates which can be securely locked. The costs of enclosing the area with suitable security fence shall be for the account of the Principal Contractor. Legally required signs as well as construction Site standard identification and SHE performance notice boards are to be placed at all gates to the construction Site.
- 10.3.3 Service Providers are advises that Sasol Security Services have the mandate to withdraw any vehicle permit in cases where non compliances are observed i.e. illegal parking. Withdrawn vehicle permits will not be re-issued, and offenders will have to make alternative arrangements.

#### 10.4 Vetting of employees

10.4.1 Service Providers are to take note of the Sasolburg Site Procedure with regard to the process of vetting of employees.

#### 11. Risk Assessments

- 11.1 The Service Provider will be required to analyse its works information / scope of work, including equipment and define activities. For each a risk assessment will be required which defines systems and safe work procedures and planned task observations that would be used in order to complete the activity safely. Risk assessments shall be conducted by an appointed and competent person by using the contractor's own approved format that will be endorsed by management and applicable work force. (A copy will be attached to the Work Permit and kept on site).
- 11.2 Besides a safety and environmental risk assessment the risk assessment will include a Health Risk Assessment to be done by an approved inspection authority.
- 11.3 Preliminary hazard identification shall be conducted by the contractor prior to work on site. The potential hazards (see below) are listed in this SHE specification, in order to make potential contractors aware of the hazards that may be encountered on site.
- 11.4 It is, however, pointed out to the contractor that the list may not be totally comprehensive and it is the duty of each contractor to ensure that all the hazards in their scope of work are identified, before and during the project, and the necessary risk assessments carried out. These risk assessments will form part of the SH&E file and must be issued to the Client's representative for review before the work is to be started. The SHE plan will include the fall protection plan and managing actions of all the hazards / risks that have been identified.
- 11.5 The Client Baseline risk assessment will be incorporated to accommodate all risk identified, should the Client or his duly nominated alternative identify hazardous activities performed by the contractor on the site for which the contractor has not submitted a risk assessment, the contractor will be required to do so before continuing the work.
- 11.6 Some of the identified potential hazards on a typical Project are:

#### 11.6.1 Hazardous Environments:

- i. Water
- ii. Dust
- iii. Fumes
- iv. Noise (in excess of 85 DB in certain areas)
- v. Insufficient lighting
- vi. Confined spaces
- vii. Working at heights and on elevated structures above other persons
- viii. Working in and around excavations or floor openings
- ix. Working next to revolving equipment

- x. Working next to moving plant
- xi. Working with chemical products
- xii. Working next to or in existing plants or mining operations
- xiii. Working next to public roads / railway lines / bodies of water
- xiv. Work that may have an impact on the public
- xv. Working within the vicinity of or in electrical installations or in the proximity of power lines

## 11.6.2 Hazardous Equipment:

- i. Conveyor belts
- ii. Cranes
- iii. Earth moving equipment
- iv. Excavators
- v. Trucks
- vi. Batch plants
- vii. Ladders
- viii. Lifting equipment
- ix. Pressure vessels
- x. Scaffolding
- xi. Air compressors
- xii. Chains and slings

## 11.6.3 Hazardous Operations:

- i. Crane lifts (sometimes in windy conditions)
- ii. DB Installations
- iii. Excavations
- iv. Concrete pouring
- v. Piling
- vi. Welding / grinding / cutting
- vii. Concreting
- viii. Erecting and dismantling scaffolding
- ix. Erecting and demolishing structures
- x. Erecting and dismantling support-work and formwork

#### 11.6.4 Hazardous Tools:

- i. Angle grinders
- ii. Explosive power tools
- iii. Electric hand tools
- iv. Circular saws

- v. Welding units arc and gas
- vi. Hazardous Substances:
- vii. Biological hazards
- viii. Chemicals
- ix. Liquid petroleum
- x. Diesel
- xi. Solvents

## 12. Daily Safety Task Instruction (DSTI)

- 12.1 The format of the DSTI shall be on the template approved by the Service Provider, however, where shortfalls are identified, the Service Provider may be requested to review/update or make such changes as recommended.
- 12.2 The Contractor to ensure the DSTI is completed by an appointed person who has been trained in the DSTI process.
- 12.3 DSTI's to be completed on the Site where the task/activity will be done.
- 12.4 Instances where the task/activities continue after lunch and where working conditions change, or where the DSTI is not adequate, the DSTI shall be reviewed by the appointed risk assessor. The DSTI will be discussed with the work force and written confirmation to be obtained.
- 12.5 The Service Provider to include surrounding hazards/risks (i.e. plant equipment, weather etc.) the DSTI as this could create additional risks to the team executing the work.
- 12.6 Instances where multi-disciplinary or more than one Contractor is required to perform work, an integrated DSTI shall be done. It remains the responsibility of the Principal Contractor to ensure the DSTI is conducted, implemented and complied with.
- 12.7 Written confirmation of attendance to be kept in the SHE file and should be available on request.

#### 13. Communication

#### 13.1 **Meetings**

- 13.1.1 All project progress meetings are to have SH&E as a standing item on the agenda.
- 13.1.2 A weekly safety meeting shall be held, comprising of Contractor's SH&E officers, supervisors and chairpersons of the Contractors on the site as well as the Client's representatives. Matters discussed as a minimum are:
  - i. Work look ahead
  - ii. Accident / Safety incidents and incident trends analysis
  - iii. Accident investigations

- iv. Hazardous materials / substances
- v. Work procedures
- vi. Protective clothing / equipment
- vii. Housekeeping
- viii. Work permits
- ix. Non-conformances
- x. Emergency preparedness
- xi. Traffic control
- xii. Medicals
- xiii. Training
- xiv. Forthcoming high hazard activities
- xv. General health and safety issues
- xvi. SH&E Plan compliance
- xvii. Matters arising from Contractor's SH&E meetings
- 13.1.3 Any incident or injury that may have a significant impact on the project or adjacent plans will be communicated to the Client immediately an official notification will be forward to within the agreed time.

#### 13.2 Toolbox Talks

- 13.2.1 The Service Provider is expected to have safety "tool box" talks on a daily basis. The topic of these talks shall be in accordance with identified risks and trends associated with the project and the format shall be presented to the Client for acceptance.
- 13.2.2 The Client may vary the frequency of the toolbox talks as circumstances depicts.
- 13.2.3 A spokesman who is proficient in a language that is commonly understood by all personnel should give the presentation or translate the presentation if so required by the group.
- 13.2.4 The Service Provider to ensure toolbox talks are held in small groups and the area where the toolbox talks are held are conducive to an effective communication session (i.e. noise levels, size of work force, visibility etc. to be considered).
- 13.2.5 The Service Provider to have a management plan to deal with employees who arrive late/don't join the toolbox talks. This plan must be discussed with the Client.
- 13.2.6 Proof and attendance of these talks shall be kept on site.

#### 13.3 Cell Phones and Hand Held Radios

- 13.3.1 The usage of cell phones is not permitted in operating plants.
- 13.3.2 The Service Provider to provide suitable storage for personal items including mobile phones.
- 13.3.3 Predominantly, hand radios will be utilized for communication on site. This item will be described in more detail under the section governing emergency management.

## 13.4 Electronic equipment and potential ignition sources

- 13.4.1 Items such as lighters, MP3 players and I-pods etc. must be intrinsically safe in order to be taken into operational areas.
- 13.4.2 In addition, potential ignition sources such as matches and cell phones are also not permitted in operational areas

#### 14. Measurements and review of SHE Performance

## 14.1 Monthly SHE Reports

- 14.1.1 The monthly measuring and monitoring of the SHE performance indicators are mandatory for all Service Providers. All Service Providers are to measure and monitor trends found in the SHE statistics and provide the Principal Contractor SHE Safety Officer with this information on a monthly basis.
- 14.1.2 The Principal Supplier's SHE Safety Officer shall thereafter collate this information from the various Service Providers, put together a comprehensive report trend analysis, recovery plan of the statistics and submit it to the Client on a monthly basis by no later than the 27th of each month (unless otherwise agreed with the Client).

## 14.2 Weekly SHE feedback

- 14.2.1 The weekly measuring and monitoring of the weekly SHE performance indicators are mandatory for all Suppliers. All Service Providers are to measure and monitor trends found in the SHE statistics and provide the Principal Contractors SHE Safety Officer with this information on a weekly basis.
- 14.2.2 The Principal Contractor SHE Safety Officer shall thereafter collate this information from the various Service Providers, put together a comprehensive report trend analysis, recovery plan of the statistics and submit it to the Client on a weekly basis as agreed with the Client.
- 14.2.3 The information required in the weekly report to be in the format provided.
- 14.2.4 The Client and the Principal Contractor SHE officer shall review the data and provide suggestions to improve on the SHE performance.

#### 15. Exit criteria

- 15.1 The Supplier is required to submit end of job documentation on completion of the construction work according to a prescribed checklist.
- 15.2 These documents shall be endorsed by the Principal Contractor Project Manager before handover.
- 15.3 The Service Provider is required to start compiling the end of job documentation with the emphasis on the comprehensive SHE report before any key role players are disbanded from the Project.
- 15.4 The Principal Contractor will provide one hard copy and 3 electronic (CDs) of the following documents to the Client. These documents shall be endorsed by the Principal Contractor manager before handing it over to the Client.

## 16. Emergency Preparedness

- 16.1 The Principal Contractor will develop a project specific emergency procedure focusing on the Emergency Management guideline provided by the Client emergency management. The Principal Contractor shall ensure that the emergency procedure is approved in writing by the Sasol Emergency Management Department or where there is no such service by the Clients site SHE Manager
- 16.2 Notwithstanding the detail provided in the Emergency Guideline from the Client, the Service Provider will ensure the project specific requirements are provided for which may include the appointment of Emergency Evacuation Controllers/Marshals as well as the provision for effective communication during an Emergency.

#### 17. Environmental Management

- 17.1.1 All Contractors shall develop an environmental management plan for the project, which shall include waste and water management
- 17.1.2 All employees must be trained in the application of the environmental waste management plan. This training should ideally be included as part of the safety induction training and toolbox talks.
- 17.1.3 All waste from servicing must be segregated and disposed of in accordance with the environmental legislation. The contractor shall develop a waste register and produce a certificate of disposal for all waste and contaminated soil generated from these activities. Waste disposal slips obtained from the relevant licenced waste disposal site must be kept in the contractor's SHE File.
- 17.1.4 Waste removal (i.e. Hazardous waste) must be carried out by a registered waste removal

- company that is on Sasol's vendor list and in accordance with the relevant Sasol Site Procedures.
- 17.1.5 Spills of diesel, oil and other hazardous chemicals should be prevented at all times. All equipment that has the potential for spillages or leakages shall be equipped with drip trays. In the event of a spill, the source of the spill must be identified and addressed. The spill must be cleaned immediately and any contaminated soil must be removed and disposed of through a recognised waste disposal method with the approval of the Client's representative.
- 17.1.6 All vehicle fuelling and servicing areas shall have a concrete floor and a concrete kerb to contain any spills of fuel oils or other liquids. Where major spills are likely, a spill kit must be made available and personnel trained in its use. Where refuelling is done on site from a portable container, proper refuelling procedures should be implemented to prevent spillages. No oil shall be drained into the ground. All filling facilities will be approved by the Client after assessment by the Client's Environmental Department and the SASOL Emergency Management Department.
- 17.1.7 All servicing of vehicles and equipment must take place off site (unless carried out on a bunded concrete area). Vehicles and equipment must be serviced regularly to ensure that they remain in good working order. Service records must be kept in the environmental file. It is strictly prohibited to wash vehicles on site or in the laydown areas.
- 17.1.8 No fires are allowed. Contractor to strictly adhere to Regulation 27 (i.e. "fire precautions on construction sites") of the Construction Regulations (GNR. 1010 of 2003). No waste is allowed to be burnt (or buried), and must be removed from site and disposed of at a registered waste disposal site. The waste disposal slips obtained from the disposal site shall be filed in the SHE File.
- 17.1.9 All sites to be kept neat and tidy and void of litter at all times.
- 17.1.10 No food/beverage container may be used for alternative purposes e.g. paint, thinners or solvent receptacle, even if clearly marked.

#### 17.2 Smoking

- 17.2.1 Smoking is only permitted in designated areas on site.
- 17.2.2 The Service Provider to provide suitable facilities for their own personnel at locations agreed with the Client and SBU.
- 17.2.3 The Service Provider to ensure these facilities are equipped with sufficient waste bins (e.g. one for cigarette stubs and one for general waste), firefighting equipment and the necessary signage as required by legislation.
- 17.2.4 The Service Providers to ensure these facilities are kept clean and tidy on a daily basis.

## 18. Working in Inclement Weather

### 18.1 Construction work done during inclement weather conditions

- 18.1.1 The contractor will provide as part of the Bid clarification and SHE plan drafting an inclement weather management plan including an early warning system, specifically focused for the intended construction work to be performed. All potential weather risks will be considered and included into the construction specific risk assessment for Client review.
- 18.1.2 During potential inclement weather the Contractor will activate the project specific inclement weather Management plan and assure the safety of the employees and equipment.
- 18.1.3 Extreme temperatures; hot or cold weather which includes fatigue management must also be considered as part of adverse/inclement weather management.
- 18.1.4 After inclement weather the on-site conditions needs to be reassessed and a recovery plan to be implemented. The project specific risk assessments must be reviewed to include all conditions.

## 19. Behavioural Based Safety (BBS) Principles and Essential Requirements

- 19.1 The Service Provider and its appointed Contractor's shall ensure that a behaviour based safety system is implemented on all Projects in line with specified BBS principles and BBS essential requirements as stipulated in this specification.
- 19.2 The Client has provided additional information pertaining to the definitions, deliverables and requirements as an attachment to this specification.
- 19.3 Where the Service Provider and appointed Contractors do not have an existing BBS process, the Client will provide guidelines for the Service Provider to assist in the implementation of a system; however; it remains the responsibility of the Service Provider to provide the information as required by the Client.

#### 20. Deviations

- 20.1 Any deviation from this agreed construction sector SHE specification is seen in serious light and must be communicated to the Client immediately upon discovery. Failing to report deviations may result in consequence management to be actioned by Sasol.
- 20.2 In addition to possible consequence management being applied, precise corrective actions have been indicated in certain items previously identified as problem areas on other Projects.

## 21. Project Specific Requirements

- 21.1 Although most of the requirements for this project are stipulated in this document the Client reserves the right to add and remove certain criteria following: risk assessments conducted, incident investigations and corrective/preventative measures identified, process deviation assessments (PDA's) during construction, and constructability reviews during project execution.
- 21.2 Contractors will observe and maintain this project specific SHE specification as indicated by the Client. Additional Project specific requirements/information will be provided during the SHE Kick off meeting or during the project execution where relevant.
- 21.3 The Service Provider will be provided with an extensive index of Sasolburg Site Procedures (SSP's) which may be relevant for the project. Although all precaution is taken to ensure the latest revision of procedures are issued (according to the list), the Service Provider is to take note that unforeseen changes may occur. Instances where changes are identified, it will be discussed with the Service Provider and dealt with accordingly.
- 21.4 The Service Provider to ensure adequate provision is made for the implementation of incentive schemes as well as initiatives /interventions in the interest of promoting safety during project execution. Details pertaining proposed incentives/initiatives will form part of discussion during project SH&E meetings.
- 21.5 The Service Provider will be provided with an extensive list of lessons learnt (learnings & insights) from other projects. The Service Provider to incorporate the information and ensure recurrence of similar incidents is prevented.

#### 22. References

SSC-SAF-GPR-00006 Group Procedure for Service Provider Safety Management.