

Document Type	Procedure
Scope of Activity	Rotek Industries SOC Limited and Roshcon SOC Limited
Purpose	To ensure compliance with the provisions of the Construction Regulations.

Compiled		
Name/Designation	Signature	Date
A Hughes SHEQ Business Partner Transformer and Switchgear Services		

Authorised		
Name/Designation	Signature	Date
P Faloona SHEQ Head of Department		

Revision Details		
Date	Revision	Area
18/07/2012	1	EA-GE-T-01
30/07/2013	0	All

Accepted		
Name/Designation	Signature	Date

Note: This hard copy document is controlled and forms part of the Business Management System. Only signed, authorised copies marked 'Controlled Copy' in red can be used as part of the Business Management System. This document must be revised in accordance with the document control system.

Distribution of documents via Electronic Media is subject to no physical signatures being available on documents. Virtue of the fact that the document is in the Electronic BMS stipulates that the said document is the latest revision authorised and stored with the Document Control Centre. The electronic document validity clause also comes into effect. Printed Friday, 18 November 2022.

Copyright: This document vest in the organisation, A member of the Eskom Group and no part thereof may be reproduced without the consent of the copyright holder.

Table of Contents

Section:	Description:	Page:
	Document Title and Control Page	1
	Table of Contents	2
1.	Introduction	4
2.	Scope.....	4
3.	References	4
4.	Definitions	4
5.	Procedure	5
5.1	Section 37(2) Agreement.....	5
5.2	Notification of Construction Work	5
5.3	Letter of Good Standing	5
5.4	Client Appointment (4(1) (C))	6
5.5	Contractor Appointment (5(3)(B))	6
5.6	Dedicated Employer (16(2))	6
5.7	Competent person for Machinery GMR 2(1)	6
5.8	Construction Supervisor CR 6(1).....	6
5.9	Assistant Construction Supervisor CR 6(2)	6
5.10	Construction Safety Officer CR 6(6)	6
5.11	Risk Assessor CR 7(1)	7
5.12	Fall Protection Plan Developer CR 8(1)(A).....	7
5.13	Incident Investigator GAR 9(2)	7
5.14	Competent Person for Scaffolding CR 14(2)	7
5.15	Competent Person for Cranes CR 20(F)(G).....	7
5.16	Competent Person for Construction Vehicle and Mobile Plant CR 21(J).....	8
5.17	Competent Person for Stacking and Storage CR 26(A).....	8
5.18	Competent Person for Fire Fighting CR 27(H)	8
5.19	Competent Person for First Aid GSR 3(4)	8
5.20	Competent Person for HV Regulations	8
5.21	Competent Person for Confined Space GSR 5(1)	8
5.22	Competent Person for Formwork and Support Work CR 10(A)(E)(F).....	8
5.23	Competent Person for Excavation CR 11(1)	9
5.24	Competent Person for Batch Plants CR 18(1)	9
5.25	Competent Person for Electrical Installations and Machinery on Construction Sites CR 22	9
5.26	Induction Training	9
5.27	Medical Certificates	9
5.28	Toolbox Talk CR 7(4).....	9
5.29	Monthly Reporting.....	10
5.30	Issuing of Personal Protective Equipment (PPE) GSR 2	10
5.31	Fire Extinguisher.....	10
5.32	First Aid Box	10
5.33	Reporting of Incidents.....	11
5.34	Certificates of Competency for Contractors.....	11
5.35	Lifting or Rigging Equipment	11
5.36	Risk Assessments CR (7)(1)	12
5.37	Fall Prevention CR (8)(2).....	12

5.38	Environmental Management.....	13
5.39	Waste Management.....	13
5.40	Environmental Mitigation Plan	13
5.41	Portable Electrical Equipment	13
5.42	Electrical Protection	15
5.43	Ladders	15
5.44	Scaffolding	16
5.45	Compressed Gas Cylinders.....	16
5.46	Notices and Sign GSR 2B	16
5.47	Health and Safety Meetings	17
5.48	Safe Work Procedure (SWP).....	17
5.49	Planned Job Observations	17
5.50	Inspection and Audit Reports	17
5.51	Permit to Work	17
5.52	Formwork and Support Work.....	18
5.53	Excavation	18
5.54	Batch Plants.....	18
5.55	Certification of Compliance (COC)	18
5.56	Transportation of Employees.....	18
5.57	Housekeeping.....	19
5.58	Walkways and Storage Demarcation	20
5.59	Stacking and Storage	20
5.60	Environmental Mitigation Plan (EMP)	20
5.61	Effluent Water	20
5.62	Water Environments	20
5.63	Construction Welfare Facilities	21
5.63	Fire Alarm	21
5.64	Occupational Hygiene.....	21
5.65	Hazardous Chemical Substances	22
5.66	Dust/Asbestos.....	22
5.67	Life Saving Rules.....	23
5.68	Environmental Rules.....	24

	Business Management System SHE Specification for Construction Work	Ref No.: E-32
		Rev No.: 1
		Date: 30/07/2013
		Page: 4 of 25

1. INTRODUCTION

NOTE: The term ‘organisation’ is the title given to Rotek Industries SOC Limited and Roshcon SOC Limited within this document.

- 1.1 The Safety, Health and Environmental (SHE) specification is the Organisation’s minimum requirements.
- 1.2 The Contractor shall provide and demonstrate to the relevant SHEQ department a documented SHE Plan on measures taken to address SHE issues applicable to the scope of work to be performed. The SHE Plan shall be submitted to the relevant SHEQ department for approval before the commencement of any project. The approved SHE Plan will be implemented by the Contractor on the commencement date of the Project and for the duration of the construction work. The SHE Plan shall include the Scope of Work, Legal Appointments, Incident Reporting and Investigations, Team Training, Safe Work Procedures, Risk Assessments, Tool Box Talk Registers, Employee Medical Certificates, etc., as well as all other points raised in this specification.
- 1.3 If your tender is successful, your SHE Plan would then be discussed and approved by the SHEQ department. You and your sub/co-contractors shall be required to adhere to requirements in your approved SHE Plan and any additional ad-hoc requirements that the Client or the relevant Project Manager may request during the project phase. No work shall commence if the SHE Plan is not approved.
- 1.4 The relevant SHEQ department in no way assumes the Contractor’s legal responsibilities. The Contractor is and remains accountable for the quality & the execution of his/her Health & Safety Programme for his/her employees and sub-contractor employees.

2. SCOPE

This SHE Specification is applicable to all Contractors performing work on behalf of the relevant Rotek/Roshcon (RR) department.

3. REFERENCES

- 3.1 Occupational Health and Safety Act, 85 of 1993.
- 3.2 National Environmental Management Act, 107 of 1998.

4. DEFINITIONS

- 4.1 SHE Specification means a documented specification of all Safety, Health and Environmental requirements pertaining to the associated construction work outlined in the Scope of Work.

	Business Management System SHE Specification for Construction Work	Ref No.: E-32
		Rev No.: 1
		Date: 30/07/2013
		Page: 5 of 25

- 4.2 SHE Plan means a documented plan which addresses hazards identified and includes safe work procedures to mitigate, reduce or control the hazards identified.
- 4.3 Client means any person for whom construction work is to be performed.
- 4.4 Principal Contractor means employer as defined in section 1 of the Act who performs construction work and is appointed by the client to be in overall control and management of a part of or the whole of a construction site.
- 4.5 Contractor includes sub-contractor means an employer as defined in section 1 of the Act, who performs construction work and includes principle contractor.
- 4.6 Construction Work means any work in connection with:
- 4.6.1 The erection, maintenance, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure;
 - 4.6.2 The installation, erection, dismantling or maintenance of a fixed plant where such work includes the risk of a person falling;
 - 4.6.3 The construction, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system or any similar civil engineering structure; or
 - 4.6.4 The moving of earth, clearing of land, the making of an excavation, piling, or any similar type of work.

5. PROCEDURE

5.1 Section 37(2) Agreement

The agreement shall be signed by the RR Responsible Person and the Contractor. A copy of the agreement shall be placed in the SHE File.

5.2 Notification of Construction Work

Where applicable, the contractor shall complete the notification of construction work (Annexure A) form as per Construction Regulations 3(2) and forward a signed copy to the Department of Labour (DOL).

5.3 Letter of Good Standing

The Letter of Good Standing ensures that a Contractor is in Good Standing with the Compensation Commissioner or a registered insurer and in the event of an incident occurring, the Commissioner will incur the cost of the injury if the injured is an employee of the Contractor. A valid copy of the Letter of Good Standing shall be placed in the SHE File.

NOTE: No proof of payment or deposit slips will be accepted as confirmation of having a valid letter of good standing.

	Business Management System SHE Specification for Construction Work	Ref No.: E-32
		Rev No.: 1
		Date: 30/07/2013
		Page: 6 of 25

5.4 **Client Appointment (4)(1)(C)**

A CR 4(1) (C) Appointment shall be signed between the relevant RR Responsible Person and the Contractor upon the Contractor complying with the requirements as listed under this Specification. The Contractor shall accept the appointment by signing the appointment letter.

5.5 **Contractor Appointment (5)(3)(B)**

Where applicable this appointment shall be signed by both the Principle Contractor and the Sub Contractor. The appointment shall be drawn up if the sub-contractor meets the requirements as listed under this Specification.

5.6 **Dedicated Employer (16)(2)**

This appointment is made in terms of Section 16 of the Occupational Health and Safety Act 85 of 1993. A 16(2) Appointment does not alleviate the 16(1) from his/her responsibilities with regards to Occupational Health and Safety issues but allows a 16(2) to assist the 16(1) in his/her responsibilities. Contractors shall appoint a 16(2) and a copy of the appointment shall be placed in the SHE File.

5.7 **Competent person for Machinery GMR 2(1)**

This appointment is made (where applicable) in terms of General Machinery Regulation. A competent person shall be appointed as a GMR 2(1) and competencies shall be verified in terms of General Machinery Regulations 1 where the definition of “Certificated Engineer” and “Competent Person” shall apply. The GMR 2(1) appointment shall be sent to DOL for approval. A copy of the appointment shall be placed in the SHE File where applicable.

5.8 **Construction Supervisor CR 6(1)**

A competent person shall be appointed in terms of Construction Regulation 6(1). The appointed person shall be responsible for supervising the construction work with duties as listed in terms of Construction Regulations. The appointed person shall have SHE and Technical Training Certificates to support the appointment.

5.9 **Assistant Construction Supervisor CR 6(2)**

This appointment shall be applicable if the Construction Supervisor 6(1) will not be available on the construction site at any time during the duration of the work (e.g.) if the Supervisor will be attending site meetings, leaving site to collect materials etc. The appointed person shall have SHE and Technical Training Certificate to support the appointment.

5.10 **Construction Safety Officer CR 6(6)**

This appointment shall be made in terms of Construction Regulation 6(6). The appointed person will have a qualification in Occupational Health and Safety Management, Environmental Health or equivalent or NEBOSH.

	Business Management System SHE Specification for Construction Work	Ref No.: E-32
		Rev No.: 1
		Date: 30/07/2013
		Page: 7 of 25

5.11 Risk Assessor CR 7(1)

This appointment shall be made in terms of Construction Regulation 7. The appointment shall include duties for training as required by Construction Regulation 7(4). The appointed person shall have a Hazard Identification and Risk Assessment Training Certificate to support the appointment.

5.12 Fall Protection Plan Developer CR 8(1)(A)

5.12.1 The appointment shall be made in terms of Construction Regulation 8. The appointment will include duties as listed under Construction Regulations 8(2)(3)(4) and (5). The appointed person will have a valid Working at Height or Fall Protection Competency Certificate to support the appointment. The Working at Height or Fall Protection Training course shall include as a minimum:

- a) Fall Prevention and not Only Fall Arrest
- b) Anchor Points
- c) Equipment and PPE to be used
- d) Training
- e) Rescue
- f) Objects Falling
- g) Use of Netting
- h) Demarcated Drop Zones
- i) Safe Rigging Systems
- j) Assessment of Medical and Psychological Factors
- k) Inspection and Maintenance of equipment to be used

5.13 Incident Investigator GAR 9(2)

This appointment shall be made in terms of General Administrative Regulation 9. The appointed person will have a Root Cause Analysis (RCAT) or Incident Investigation Training Certificate to support the appointment.

5.14 Competent Person for Scaffolding CR 14(2)

This appointment shall be made in terms of Construction Regulation 14 whenever scaffolding is to be erected. The appointed person will have a Scaffolding Competency Certificate to support the appointment. All scaffolding must be erected and inspected by people who have been trained and found competent and who have been appointed in writing to perform the tasks.

5.15 Competent Person for Cranes CR 20(F)(G)

This appointment shall be made in terms of Construction Regulation 20(f)(g). The appointed person will have a DOL Competency Certificate or a Certificate Valid by an approved service provider indicating that the appointed person has successfully

	Business Management System SHE Specification for Construction Work	Ref No.: E-32
		Rev No.: 1
		Date: 30/07/2013
		Page: 8 of 25

completed a course for a specific load in question to support the appointment. This appointment is to be made for all cranes and forklift drivers.

5.16 **Competent Person for Construction Vehicle and Mobile Plant CR 21(J)**

This appointment shall be made in terms of Construction Regulations 21(j). The appointed person will inspect each vehicle that is used to transport people or materials onto a construction site. The appointed person must have a valid driver's or operating licence for the vehicle or plant.

5.17 **Competent Person for Stacking and Storage CR 26(A)**

This appointment shall be made in terms of Construction Regulation 26. The appointed person will have a Stacking and Storage Competency Certificate to support the appointment.

5.18 **Competent Person for Fire Fighting CR 27(H)**

This appointment shall be made in terms of Construction Regulation 27(h). The appointed person will have a valid Fire Fighting Certificate to support the appointment.

5.19 **Competent Person for First Aid GSR 3(4)**

This appointment shall be made in terms of General Safety Regulations 3(4). The appointed person will have a valid First Aid Certificate to support the appointment.

5.20 **Competent Person for HV Regulations**

This appointment shall be made in terms of the Over-Head Regulations for High Voltage Systems (ORHVS). The Appointed Person will have a High Voltage Regulations Certificate, First Aid level 2 Training Certificate and a Fire Fighting Training Certificate to support the appointment.

5.21 **Competent Person for Confined Space GSR 5(1)**

This appointment shall be made in terms of General Safety Regulations 5(1). The Appointed Person will have a Confined Space Competency Certificate to support the appointment. The person who is responsible to declare the confined space safe for entry must have a Training Certificate issued by the manufacturer of the instrument that will be used to perform the test to support the appointment. This appointment is specifically to test and evaluate the air in the confined space.

5.22 **Competent Person for Formwork and Support Work CR 10(A)(E)(F)**

This appointment shall be made in terms of Construction Regulations 10(a)(e)(f) Supervisor for Formwork and Support Work. The appointed person will have a track record in the form of a competency matrix indicating previous Projects that he/she worked on with formwork and support work. The appointed person shall provide details of references from his/her previous projects to verify such competency.

	Business Management System SHE Specification for Construction Work	Ref No.: E-32
		Rev No.: 1
		Date: 30/07/2013
		Page: 9 of 25

5.23 Competent Person for Excavation CR 11(1)

This appointment shall be made in terms of Construction Regulations 11(1). The appointed person will have a track record in the form of a competency matrix indicating previous Projects that he/she has work on with on excavations. The appointed person shall provide details of references from his/her previous projects to verify such competency.

5.24 Competent Person for Batch Plants CR 18(1)

This appointment shall be made in terms of Construction Regulations 18(1) for a person responsible to operate and supervise the batch plant. The appointed person will have a track record in the form of a competency matrix indicating previous projects that he/she has work on with batch plants. The appointed person shall provide details of references from his/her previous projects to verify such competency.

5.25 Competent Person for Electrical Installations and Machinery on Construction Sites CR 22

This appointment shall be made in terms of Construction Regulations 22(e). The appointed person shall meet the requirements as listed under Electrical Installation Regulations 5.

5.26 Induction Training

5.26.1 Every Contractor shall provide the relevant SHEQ department with proof of induction conducted by the Contractor on SHE issues that each employee will be exposed to under his/her control.

5.26.2 Every Contractor shall attend the RR SHE Induction provided by the relevant SHEQ Department as well as any induction provided by Eskom, where applicable.

NOTE: The relevant SHEQ department shall induct contractors once the SHE File is approved. Where a new employee or sub-contractor joins the team after the project has already commenced, that employee or sub-contractor employees may only start working after the completion of the Contractor, RR and Eskom induction (where applicable).

5.27 Medical Certificates of Fitness

Contractors shall provide the relevant SHEQ department with valid Medical Certificates of Fitness completed by an Occupational Medical Practitioner (OMP) or Occupational Health Practitioner (OHP) for every employee under his/her control. The relevant SHEQ department may request verification that the practitioner is an OMP or OHP if need be, in which case the Contractor will provide such verification. The medicals shall be done annually.

5.28 Toolbox Talk CR 7(4)

The toolbox talks are to be conducted daily by the contractor with his/her team members and a register signed for verification purposes. Toolbox Talks should address topics

	Business Management System SHE Specification for Construction Work	Ref No.: E-32
		Rev No.: 1
		Date: 30/07/2013
		Page: 10 of 25

relevant for the work to be performed. The relevant SHEQ department can request toolbox talks from previous jobs if need be.

5.29 Monthly Reporting

5.29.1 Monthly SHE statistics shall be provided to the relevant SHEQ department. The report shall include:

- a) The names of any sub-contractors (where applicable).
- b) Actual number of contractor employees worked on the RR projects.
- c) Actual man-hours worked on the RR projects.
- d) The contractors' lost-time incident rate (LTIR).
- e) Number of near miss, first aid, medical, lost time, fatality, environmental or rework incidents.
- f) Volumes of all waste disposed for each waste stream.
- g) Safe Disposal Certificates (copies), for hazardous waste disposed.

5.30 Issuing of Personal Protective Equipment (PPE) GSR 2

5.30.1 Every contractor shall issue his/her employees with PPE as per General Safety Regulations 2. If additional PPE is required in order to address hazards as per the scope of work to be performed, the Contractor shall provide such PPE. PPE shall be inspected every month and results of such inspections recorded.

5.30.2 Personal protective equipment shall include, but will not be restricted to, the following:

- a) Eskom approved head protection.
- b) Eye and face protection.
- c) Foot protection.
- d) Respiratory equipment.
- e) Hand protection.
- f) Hearing protection.
- g) Fall arrest equipment e.g. full body safety harness, no safety belts allowed.
- h) Protective clothing e.g. overalls.
- i) Reflective vests.

5.30.3 Personal protective equipment shall be maintained in a good and clean condition. The equipment shall be checked on a regular basis to ensure that it is being worn. Torn (damaged) equipment should be replaced when necessary.

5.31 Fire Extinguisher

5.31.1 The Contractor shall provide his/her team with a fire extinguisher(s) on site and such fire extinguisher(s) must be inspected on a yearly basis.

5.32 First Aid Box

Electronic Document Validity: Printed Friday, 18 November 2022. Documents printed via Electronic Media are valid as an authorised edition for 24 hours from time of print, otherwise this document will be deemed as information only. The document holder is responsible to identify and establish the current revision status from the Document Control Centre to preclude the use of invalid and/or obsolete documents. Copyright: This document vest in the organisation, a member of the Eskom Group and no part thereof may be reproduced without the consent of the copyright holder.

	Business Management System SHE Specification for Construction Work	Ref No.: E-32
		Rev No.: 1
		Date: 30/07/2013
		Page: 11 of 25

- 5.32.1 Each contractor shall provide each team with first aid boxes as per General Safety Regulations 3(2). First Aid boxes will be equipped with medical supplies as listed under GSR 3(3)(a) Annexure. Every first aid box under a contractor's control shall be inspected every month. An inspection register will be kept in the contractors SHE File. The name of the first aider must be placed on the first aid box.

5.33 Reporting of Incidents

- 5.33.1 All incidents occurring on the RR premises including those that occur on site where work is performed on behalf of RR must be reported within twenty-four (24) hours on an Initial Notification of Occurrence or similar document to the relevant SHEQ department personnel. In addition, the contractor shall immediately report incidents by telephone/personally to the RR responsible person. The incident must be investigated by the Contractor's Incident Investigator and the Investigation Report shall to be handed to the relevant RR SHEQ department within four working days of the incident occurring. The investigation report shall cover the following aspects:

- a) Scope of Work.
- b) Project Reporting Structure.
- c) Investigation Team.
- d) Interviewees and Statements.
- e) Dates when Investigation Took Place.
- f) Sequence of Initial Events.
- g) Root and Contributory Causes.
- h) Management and System Shortcomings.
- i) Immediate Corrective Action.
- j) Preventive Action.
- k) Conclusion.
- l) Appendices.
- m) Photographs of Incident.

5.34 Certificates of Competency for Contractors

- 5.34.1 Every contractor shall provide to the relevant SHEQ department a copy of competency certificates for every employee under his/her control. All Contractor Supervisors shall as a minimum, be trade tested in a trade that is relevant to the work being performed.

NOTE: Competency certificates for team members shall also be included.

5.35 Lifting or Rigging Equipment

- 5.35.1 All rigging work shall only commence after the approval of a rigging plan by the relevant SHEQ department.
- 5.35.2 All rigging work shall be carried out under the supervision of a Qualified Rigger.

	Business Management System SHE Specification for Construction Work	Ref No.: E-32
		Rev No.: 1
		Date: 30/07/2013
		Page: 12 of 25

5.35.3 Should any cranes be used, the following information shall be provided to the relevant SHEQ department.

- a) Letter of Good Standing for the contractor/supplier/vendor providing the operator.
- b) Training Certificate for operator indicating the load for which he/she was trained.
- c) Valid Medical Certificate for operator conducted by an OMP or OHP.
- d) Load Test Certificate - load test shall be done by an accredited inspector who is registered with the Engineering Council of South Africa (ECSA) or by DOL. The Lifting Machinery Inspector (LMI) number shall be indicated on the Load Test Certificate.
- e) DOL Certificate indicating that the contractor/supplier/vendor is authorised to do load testing.
- f) Ropes, hooks, chains or any other attaching devices which forms part of the lifting machine shall be inspected every six (6) months.
- g) Work instruction on the use of cranes in close proximity of electrical power lines or high voltage (HV) yards where applicable.

5.36 Risk Assessments CR (7)(1)

- 5.36.1 Every contractor shall conduct a Risk Assessment as per Construction Regulations 7. A baseline risk assessment shall be conducted before the work is to be performed. Thereafter a pre-task risk assessment shall be conducted and discussed daily or when there is a change in the task/risk/mitigation with all affected employees.
- 5.36.2 Every risk assessment conducted shall be discussed with employees performing the work and a register signed for verification purposes.
- 5.36.3 Environmental aspects and impacts shall be recorded as part of the baseline and pre-task risk assessment.
- 5.36.4 Where any other person, other than the team performing the actual work may be impacted by the hazards and risks of the activity being performed, those other persons must also be away of and sign the risk assessment.

5.37 Fall Prevention CR (8)(2)

- 5.37.1 A Fall Protection Plan shall be submitted to the relevant SHEQ department for approval for work where any work at a height is carried out. Work at a height is defined as any work performed above a stable work surface or where a person is in a position that exposes them to fall from or into something.
- 5.37.2 The Fall Protection Plan shall address the following aspects:
 - a) Scope of Work.
 - b) Fall Prevention and not Fall Arrest Only.
 - c) Anchor Points.
 - d) Equipment and PPE.
 - e) Training (Certificates of Competence and not Attendance will be accepted).

- f) Rescue.
- g) Objects Falling.
- h) Use of Netting.
- i) Demarcated Drop Zones.
- j) Safe Rigging Systems.
- k) Medical and Psychological Factors.
- l) Inspection and Maintenance.
- m) Stoppage of work in elevated positions during inclement weather.

5.37.3 The approved Fall Prevention Plan will be implemented by the Contractor on the commencement date of the Project and for the duration of the construction work.

5.38 Environmental Management

A copy of the Environmental Authorisation (EA) and Environmental Management Plan (EMP) (if applicable) shall be provided, and must be handed to each contractor together with this specification. The employer shall ensure that the contractor understands the content of the EA and EMP. When developing the SHE Plan, the contractor shall ensure that all the requirements of the EA and EMP are complied with.

5.39 Waste Management

The Contractor shall submit a documented Waste Management Plan or instruction indicating to the relevant SHEQ department, the type of waste/s that will be produced from the work, measures taken to reduce environmental exposure and methods to dispose of waste produced. The Waste Management Plan or Instruction shall be submitted to the relevant SHEQ department for approval during the tender phase. The approved Waste Management Plan or Instruction will be implemented by the Contractor on the commencement date of the project and for the duration of the construction work. Waste volumes, as well as copies of Safe Disposal Certificates (where applicable) shall be reported to RR on a monthly basis.

5.40 Environmental Management Plan

It is the responsibility of the Supervisor to complete the project specific Environmental Management Plan on site before the project commences. The aim of this document is to ensure compliance with environmental legislation including any (Environmental Authorisations (EA) if provided. Where an EA has been granted, the contractor shall perform an internal audit one month after project start-up, to measure compliance to the mitigation plan and determine if all the requirements of the EMP are adhered to. This audit, as well as an action plan shall be communicated to the client, should any findings be noted.

5.41 Portable Electrical Equipment

	Business Management System SHE Specification for Construction Work	Ref No.: E-32
		Rev No.: 1
		Date: 30/07/2013
		Page: 14 of 25

5.41.1 The Contractor shall ensure that all portable electrical equipment complies with the requirements as listed under the Act and Regulations. Portable electric equipment shall be inspected before use.

5.41.2 In addition, the Contractor shall ensure the following:

Mechanical Protection

a) Machine Guarding

- i) All dangerous moving parts of machinery must be securely fenced or guarded so that accidental contact with these parts is not possible, i.e. open pulleys, chains, gears etc.

b) Grinding Wheels (Bench Grinders)

- i) Bench-grinders must be properly secured to the stand and the stand to the floor.
- ii) Grindstones must be adequately guarded. The revolutions per minute (rpm) of each machine must be clearly indicated.
- iii) Work rests be provided and adjusted to within three (3) millimetre of the wheel.
- iv) The wheel must be correctly dressed and the correct wheel for the specific grinder must be used.
- v) Eye protection must be used and notices must be prominently displayed.

c) Angle Grinders

- i) Cutting discs must be used in accordance with the manufacturer's specifications.
- ii) Eye protection, full-face shield or protective goggles, according to the work situation must be used.
- iii) Under no circumstances may angle grinders be used to fulfil the purpose of bench grinders.
- iv) Machine guards must be place at all times.

d) Pressure Equipment Regulations

- i) The latest pressure test certificate will accompany all pressure vessels, e.g. compressors, air containers.
- ii) The construction of the vessels and their associated equipment shall comply with the relevant OHS Act Regulation.

e) Motorised Equipment

- i) The speed limit within the RR boundaries on the main access roads is 40km/h.
- ii) Any person exceeding this limit will be put off site.
- iii) A transport plan shall be made available to the relevant SHEQ department indicating the maximum number of hours driven per day, specific rest places for drivers, at least two sets of current company emergency numbers shall be available on the vehicle, a driver risk assessment, vehicle tracking devices, etc.

	Business Management System SHE Specification for Construction Work	Ref No.: E-32
		Rev No.: 1
		Date: 30/07/2013
		Page: 15 of 25

f) Hand Tools

- i) All tools on site, including privately owned tools, must be kept in sound condition at all times.
- ii) All tools shall be inspected on a regular basis by Supervisors.

5.42 Electrical Protection

5.42.1 Portable Electrical Equipment

- a) Definition: All equipment fed through a flexible cable from a plug point-220, 380 or 500V.
 - i) This would include welding machines, power tools, extension cables etc.
 - ii) All portable electrical equipment shall be suitably numbered.
 - iii) A register shall be kept.
 - iv) All portable electrical equipment shall be inspected once a month and the results entered into the register.
- b) The Inspection Shall Include:
 - i) Damaged or Joined Cables (Not to be used. Neither is any tape around electrical equipment allowed).
 - ii) Plugs.

5.42.2 Earth Leakage Relays

- a) Earth leakage relays - portable or permanently fixed - must be provided and tested on a regular basis.
- b) Records shall be kept.

5.42.3 General Electrical Installations

- a) These must be inspected once a month for:
 - i) Polarity of Wall Sockets.
 - ii) Earth Continuity.
 - iii) Open Switchboards.
 - iv) Damaged Extension Leads.
 - v) Broken Switches etc.
- b) The results of above inspections must be entered into a suitable register.

5.43 Ladders

5.43.1 All ladders are to comply with the requirements as listed under General Safety Regulations 13(A). Ladders shall be inspected before use.

5.43.2 In addition, the Contractor shall ensure the following:

- a) Ladders

- i) Ladders must be constructed of suitable material of adequate strength.
- ii) Homemade ladders will not be allowed on site.
- iii) All ladders shall be prominently identified with the Contractors name and ladder unique identifier.
- iv) Ladders shall be checked on a monthly basis.
- v) Records are to be kept. A register must be available for audit purposes.

5.44 Scaffolding

5.44.1 All scaffolding must be erected by people who have been trained and appointed in writing to erect scaffolding. The scaffolding must also be inspected weekly, or after inclement weather if outside or after adjustments have been made, by a trained person who is appointed in writing.

5.45 Compressed Gas Cylinders

5.45.1 The Contractor shall ensure that cylinders transported to site are in an upright position and chained to ensure safe transportation practices. In addition, the contractor shall ensure the following:

- a) Compressed Gas Cylinders
 - i) Industrial gases must be stored in an isolated and well-ventilated covered area.
 - ii) Full and empty cylinders are to be stored separately.
 - iii) Cylinders must be stored in a shaded area out of direct sunlight.
 - iv) Equipment must be kept in a sound condition at all times.
 - v) Cylinders must be kept in an upright position at all times, and must be adequately chained or strapped to prevent them from falling over.
 - vi) Valves must be closed when equipment is not in use and each set must be provided with a locking spanner.
 - vii) Handling and storage of gases must be in accordance with the manufacturer specifications and good practices.
 - viii) Flame cutting equipment shall be fitted with flashback arrestors on both ends of the hoses.
 - ix) Hoses are to be free of joints.
 - x) The oxygen and the acetylene hoses shall not be tied together with electrical straps, wire, and/or insulation tape. Hose clips must be used.
 - xi) Where flame-cutting work is in progress a protective blanket shall be used in such a manner as to protect persons and equipment in areas below.

5.46 Notices and Sign GSR 2B

	Business Management System SHE Specification for Construction Work	Ref No.: E-32
		Rev No.: 1
		Date: 30/07/2013
		Page: 17 of 25

The contractor shall comply with the requirements as listed under General Safety Regulations 2B on all construction sites. Notices and signs applicable for the work to be performed will be displayed.

5.47 Health and Safety Meetings

The Contractor shall conduct and/or be part of the following SHE Meetings:

5.47.1 Contractors Statutory Meetings

- a) Individual Contractors shall hold a Statutory SHE meeting at least once a month. Where a Contractor has Sub-contractors the sub-contractor shall be included in the contractor's meetings.
- b) All appointed SHE Representatives shall be a member of at least one committee and the meeting must be held in accordance with the OHS Act.

5.47.2 Contractor SHE Meetings

Where the relevant SHEQ department convenes a contractor SHE Meeting, a senior representative from each contracting company shall be present at the meeting.

5.48 Safe Work Procedure (SWP)

The Contractor shall demonstrate to the relevant SHEQ department in a documented format the procedure undertaken to perform work safely. The approved SWP will be implemented by the contractor on the commencement date of the project and for the duration of the construction work.

5.49 Planned Job Observations

The Contractor shall perform job observations on a monthly basis. Two (2) job observations shall be conducted by the contractor on a monthly basis and proof of such job observations kept in the SHE File for approval.

5.50 Inspection and Audit Reports

The relevant SHEQ Department can at any such time inspect and audit any contractor under their control. Findings from the inspection or audit shall be closed out as per the report close out date. Where any deviations are found, a System Deficiency Report (SDR) will be issued to the Contractor. A copy of the inspection or audit report must be kept in the SHE File together with a copy of any SDR's that were issued.

5.51 Permit to Work, Lock-out Procedures, Safe Work Procedures

5.51.1 The Permit to Work shall be issued by the RR Responsible Person. The Responsible Person for the project shall indicate to the contractor which task requires a Permit to Work.

- a) The Responsible Person shall ensure that:
 - i) The conditions of permits and cautionary notices are strictly adhered to.
 - ii) The lock-out procedures, mechanical as well as electrical, are strictly adhered to and any deviations shall be corrected immediately.

	Business Management System SHE Specification for Construction Work	Ref No.: E-32
		Rev No.: 1
		Date: 30/07/2013
		Page: 18 of 25

iii) Those safe work procedures as laid down by the relevant SHEQ department and the client shall be followed.

iv) The workers register and cautionary notices are discussed daily with the workers.

5.52 Formwork and Support Work

The Contractor shall ensure that the requirements as listed under Construction Regulations 10 is complied with, that is, CR 10(b)(c)(d)(f)(g)(h)(i)(j)(k)(l)(m).

5.53 Excavation

5.53.1 The Contractor will provide to the relevant SHEQ department a risk assessment indicating the hazards/risk for the scope of work to be performed including control measures that will be implemented to control the hazard/risk. The Contractor will also include a plan indicating to the relevant SHEQ department the details of the excavation work, instructions to follow when working in an excavation, training to employees with regards to excavations and details of excavations inspections as per Construction Regulations 11(2)(h).

5.53.2 Should any fill material be used during these activities, the contractor shall supply the relevant SHEQ department with a copy of the mining permit from the supplier of the fill material.

5.54 Batch Plants

5.54.1 The contractor shall ensure that all batch plant activities comply with the requirements as listed under Construction Regulations 18.

5.54.2 The contractor shall implement a Dirty Water Management Plan to ensure that no contaminated water from the Batch Plant enter the surrounding environment.

5.55 Certification of Compliance (COC)

Temporary Distribution Boxes used shall be issued with a COC. The COC shall be visibly displayed.

5.56 Transportation of Employees

5.56.1 The Contractor shall ensure that he/she has a "Driver Management Plan" which highlights all the hazards, risks and control measures which have been identified and/or implemented for the safety of his/her employees as well as the safety of other road users while his/her teams travel to-and-from site.

5.56.2 The Contractor shall ensure that:

- No person rides or be required or permitted to ride on any construction vehicle or mobile plant otherwise than in a safe place provided thereon for that purpose;
- Every construction site is organised in such a way that, as far as is reasonably practicable, pedestrians and vehicles can move safely and without risks to any employees;

- c) The traffic routes are suitable for the persons using them, sufficient in number, in suitable positions and of sufficient size;
- d) Every traffic route is, where necessary indicated by suitable signs for reasons of health or safety;
- e) All construction vehicles and mobile plant left unattended at night, adjacent to a freeway in normal use or adjacent to construction areas where work is in progress, shall have appropriate lights or reflectors, or barricades equipped with appropriate lights or reflectors, in order to identify the location of the vehicles or plant;
- f) Bulldozers, scrapers, loaders, and other similar mobile plant are, when being repaired or when not in use, fully lowered or blocked with controls in a neutral position, motors stopped and brakes set;
- g) Whenever visibility conditions warrant additional lighting, all mobile plant are equipped with at least two headlights and two taillights when in operation;
- h) Tools and material are secured in order to prevent movement when transported in the same compartment with employees;
- i) Vehicles used to transport employees have seats firmly secured and adequate for the number of employees to be carried and seat belts shall be worn by all persons in the vehicle;
- j) When workers are working on or adjacent to public roads, reflective indicators are provided and worn by the workers; and
- k) Passengers will not be allowed to sit on the sides/or rear of trucks or LDVs. Persons will not be allowed to ride in the bucket of front-end loaders, or as passengers on dumpers, tractors, cranes, forklifts etc.
- l) A flagman is to be used when operating in areas congested by other workmen or areas where vision is restricted, such as between buildings and structures, roads, etc.

5.57 Housekeeping

5.57.1 Contractors shall ensure that:

Suitable housekeeping is continuously implemented on each construction site, including provisions for the:

- a) Proper storage of materials and equipment, and
- b) Removal of scrap, waste and debris at appropriate intervals.

5.57.2 Buildings and Floors

- a) All buildings/cabins must be of sound construction and must be maintained in good order.
- b) Areas in which persons are permitted to be or are required to work, must be kept free of materials, goods and other articles except those necessary for the work process, that materials must at all times be stacked properly in demarcated areas.

	Business Management System SHE Specification for Construction Work	Ref No.: E-32
		Rev No.: 1
		Date: 30/07/2013
		Page: 20 of 25

- c) All floors shall be maintained in a clean, slip-free and dry condition and free from protruding objects, nails, splinters, holes or loose boards.

5.58 Walkways and Storage Demarcation

5.58.1 Yards and Sites

- a) Storage areas for materials and equipment shall be established and maintained.
- b) Provision must be made for walkways and vehicle traffic.
- c) Existing walkways and storage areas must be adhered to.
- d) All walkways and storage areas are to be clearly demarcated.
- e) Walkways are to be kept free from materials, goods, tools, scaffolding and other articles.

5.59 Stacking and Storage

5.59.1 The Contractor shall ensure that stacking and storage complies with the requirements as listed under Construction Regulations 26.

5.59.2 Materials must be stored in areas specifically allocated for storage purposes. The height of stacks must not exceed three times the smaller dimension of the underlying base of the stack.

5.59.3 Scrap and waste materials shall be removed from site as per the required intervals.

5.59.4 Stacking of articles shall be done in accordance with the General Regulations. The Contractor Supervisor shall ensure:

- a) A competent person is appointed in writing with the duty of supervising all stacking and storage on a construction site;
- b) Adequate storage areas are provided;
- c) There are demarcated storage areas; and
- d) Storage areas are kept neat and under control.

5.60 Environmental Management Plan (EMP)

It is the responsibility of the Supervisor to complete the project specific Environmental Management Plan on site before the project commences.

5.61 Effluent Water

No effluent water or water contaminated with oil is to be washed down the storm water drains. A Water Management Plan shall be submitted as part of the tender documentation, and shall be made Site Specific upon tender award. This plan shall be approved by relevant SHEQ department before project start-up.

5.62 Water Environments

- 5.62.1 A contractor shall ensure that where construction work is done over or in close proximity to water, provision is made for:
- Preventing workers from falling into water; and
 - The rescuing of workers in danger of drowning.
- 5.62.2 A Contractor shall ensure that where a worker is exposed to the risk of drowning by falling into the water, a lifejacket is provided to and worn by the worker.
- 5.62.3 Should any of the activities that take place, trigger the need for a Water Use Licence, the contractor shall be issued with a copy of the Water Use License, and shall implement the measures prescribed.

5.63 Construction Welfare Facilities

- 5.63.1 An adequate supply of wholesome drinking water will be provided at or within reasonable access.
- 5.63.2 The following facilities should, depending on the number of workers and the duration of the work, be provided, kept clean and maintained at or within reasonable access:
- Sanitary and washing facilities or showers.
 - Facilities for changing and for the storage.
 - Accommodation for taking meals and for taking shelter during interruption to work due to adverse weather conditions.
 - Men and women workers should be provided with separate sanitary and washing facilities.

5.63 Fire Alarm

Contractor employees shall be made aware of the meaning of the RR or the client's alarms, how to report a fire, where to report it and what to do in case of a fire.

5.64 Occupational Hygiene

Occupational hygiene factors and stresses are those that effect a person over a long period of time e.g. noise - results in deafness during old age, exposure to asbestos could result in Asbestosis in due time.

5.64.1 Noise

- All employees who are exposed to noise must be educated and made aware of the harmful effects of long term exposure to noise.
- They must be provided with approved hearing protection where necessary and record must be kept of such issues.
- Noise areas must be demarcated with the appropriate signboards. The following areas should be considered, e.g. where compressors, jack hammers, explosive tools, riveting tools etc. are used.
- Acuity hearing tests shall be done on all employees. Records of such tests shall be available on-site.

	Business Management System SHE Specification for Construction Work	Ref No.: E-32
		Rev No.: 1
		Date: 30/07/2013
		Page: 22 of 25

5.64.2 Heat

- a) When employees are working in hot conditions, clean cool drinking water must be supplied with easy access to all workers.
- b) Employees must be made aware of the dangers of heat exhaustion/stroke and the signs and symptoms of impending heat collapse.
- c) Frequent and extended rest periods must be provided in accordance with the Occupational Health and Safety Act.

5.64.3 Illumination

- a) Adequate and sufficient illumination is essential and where it is insufficient the contractor must make additions to ensure safe-working conditions at all times.
- b) Ensure that all roof lights, light fittings and fanlights are kept clear and unobstructed.
- c) When use is made of artificial lighting where machinery is being used all moving parts must be clearly visible.
- d) Illumination provided must be so designed to avoid glare, reflections and stroboscopic effects.

5.65 Hazardous Chemical Substances

5.65.1 Refer to OHS Act, Hazardous Chemical Substances Regulations

5.65.2 When any chemical substances are brought onto site, the relevant SHEQ department must be provided with the following information:

- a) A list of all the substances.
- b) A material safety data sheet (MSDS) for the specific substances.
- c) Training records showing what training the employees have received.
- d) Handling and storage of chemicals must be according to the manufacturers specifications.
- e) Persons handling the substances must be trained in its uses, dangers and precautions.
- f) Adequate pre-cautions must be taken when toxic substances are used, e.g. notices posted, demarcation and warning signs.
- g) Personal protective clothing must be provided and employers must ensure its correct usage and compliance with recognised code.
- h) Adequate measures must be taken to remove gases generated from the working environment.

5.66 Dust/Asbestos

- 5.66.1 All employees must be made aware of the inherent dangers of dust. Employers must take such measures as may be necessary to decrease the generation of dust and post warning signs.
- 5.66.2 The use of thermal insulation materials containing asbestos or any other material containing asbestos is not allowed onto any RR premises or project. Where any process necessitates the breaking up, grinding, pulverising, crushing or cutting of Asbestos cement products the Project/Site Managers/Head of Departments must be notified immediately of the quantity and location.
- 5.66.3 Where employees are exposed to dusts such as Silica, Asbestos Cement, Fibreglass and Cement etc. adequate protective clothing and appliances must be provided.

5.67 Life Saving Rules

Rule	Description of Rule
Rule 1	Open , Isolate, Test, Bond and/or Insulate Before Touch No person may work on any electrical network unless: <ul style="list-style-type: none"> • He / she is trained and authorised as competent for the task to be done. • A pre-task Risk Assessment to identify all risks and hazards has been conducted prior to any work commencing. • An equipotential zone is created for each worker on the job site by earthing, bonding and/or insulating according to approved procedures. • He/she follows the applicable Operating Regulations for High Voltage Systems (ORHVS) or Plant Safety Regulations (PSR) requirement or any other related standard, procedure and outcome of risk assessment fit for the type of work or task to be performed. • The authorised person (Team Leader) has certified and shown all Team Members that the apparatus is safe to work on.
Rule 2	Hook Up at Heights <ul style="list-style-type: none"> • Working at height is any work performed above a stable work surface, or where a person puts himself/herself in a position where he/she exposes himself/herself to a fall from or into. • No person may work at height where there is a risk of falling unless: • A pre-task Risk Assessment to identify all risks and hazards has been conducted prior to commencing any work at height. • You are appropriately trained.
Rule 3	Buckle Up No person may drive any vehicle on Eskom business and/or on Eskom premises: <ul style="list-style-type: none"> • Unless the driver and all passengers are wearing seat belts
Rule 4	Be Sober <ul style="list-style-type: none"> • No person is allowed to work under the influence of drugs and/or alcohol.
Rule 5	Ensure you have a Permit to Work <ul style="list-style-type: none"> • Where an authorisation limitation exists, no person shall work without the required Permit to Work (PTW), which is governed by Plant Safety Regulations, Operating Regulations for High Voltage Systems (ORHVS), etc. • No plant is to be returned to service without the cancellation of all permits on the plant in accordance with procedure.

	Business Management System SHE Specification for Construction Work	Ref No.: E-32
		Rev No.: 1
		Date: 30/07/2013
		Page: 24 of 25

5.68 Environmental Rules

5.68.1 All Contractors shall comply with the following environment rules:

- Respect the Planet
- Reduce your impact on the environment
- Reduce, Re-use and Recycle.
- Research, React, Report and Reflect.

5.68.2 The following acts or omissions will be regarded as transgressions of environmental legislation. The Contractor will be held liable for any fines, correction, rehabilitation, etc.

- Damage to no-go areas such as wetlands, rivers, heritage sites as a result of construction work
- Open fires in undesignated areas
- Inappropriate disposal of waste
- Illegal burning of waste
- Pollution and/or discharge of waste water, oil and concrete onto the land, surface or ground water
- Illegal abstraction of water from a river or borehole (without a permit)
- Illegal mining e.g. creating borrow pits
- Illegal river crossing (including seasonal or periodic rivers)
- Altering a river-bed or embankment without a permit
- Damage, bending driving over or cutting of landowner's fences without permission
- Damage, cutting or removal of protected and indigenous trees without a permit
- Killing of landowner's animals or any other animal without permission.
- Failure to provide toilets at a workstation (using the veld as a toilet)
- Illegal harvesting of plants for medical or any other use
- Littering
- Not adhering to agreed access routes
- Inappropriate storage of hazardous substances
- Mixing of cement on a permeable surface
- Sewage spills or incorrect disposal of sewage
- Repairing or washing of vehicles in undesignated areas
- Mixing general and hazardous waste
- Disposing waste in an unregistered landfill site

	Business Management System SHE Specification for Construction Work	Ref No.: E-32
		Rev No.: 1
		Date: 30/07/2013
		Page: 25 of 25

- Contravening any other environmental legislation

NOTE:

- *Appointments cannot be made out by a Contractor's Representative and accepted by the same Representative.*
- *No certificate of attendance will be accepted, only Competency Certificates will be accepted where proof of competency is required.*
- *Only valid certificates by an accredited Training Service Provider will be accepted. Service Providers will be verified by the relevant SHEQ department if need be in which case the Contractor shall provide such verification.*
- *The appointed Contractor must have in his/ her possession a copy of a Roll Call List (document indicating the number of employees under the Contractors' control) in the Safety File. The Roll Call List must include the number of employees' present, employees' name, employees' identity number and employee's telephone numbers.*
- *If there is any change/s that may occur before or during the duration of the Project it must be brought to the attention of the relevant SHEQ department or the relevant Responsible Person for the Project (e.g.) changes of the Supervisor, additional employees, use of crane, etc.*
- *The relevant SHEQ department may at any such time call for SHE requirements to be met which are not listed on this Health and Safety Specification due to the unforeseen hazards/ risk that may occur during the course of the Project or any other requirements which may have come as a directive from either Eskom or from the relevant Senior Management.*
- *If there is any conflict between this specification and any other legislation, the legislation shall take preference.*
- *The Contractor must upon being issued with the Health and Safety Specification sign a transmittal note acknowledging receipt of the documentation.*