

Annexure A

SERVICE REQUIREMENTS

SCOPE OF WORK- SCAFFOLDING, PAINTING AND INSULATION

1. INTRODUCTION

1.1 The scope of works refers to:

- Grit blasting
- UHP paint removal
- Applications of Paints and Coatings
- Insulation
- Erection, hire and Dismantling Scaffolding

The above is required for general maintenance and project activities across SANPC Refinery site and transfer lines to the Island View terminal.

1.2 The contractor shall supply all labour, supervision, consumables, materials, equipment, instruments, tools, services and transport required for performing the works.

1.3 Work performed will be measured and remuneration shall be based on the Schedule of Prices.

1.4 The contractor shall not, without the prior written consent of SANPC Refinery, make any alteration or addition to this Scope of Work.

1.5 Contractor to ensure they stop scaffold hire charges and have assigned dismantle crews upon receiving the notification to dismantle scaffolding on site within 24 hours of receiving instruction from the SANPC Refinery Planner/ Scoper, after which scaffolding no longer required must be dismantled.

1.6 Gritblasting shall be conducted in accordance with specifications stipulated in each work order.

1.7 Paint specification options and application methods shall be followed as indicated by each work order.

1.8 The Contractor shall check the coatings dry film thickness of each coat and of the total coating system as specified. Thickness testing shall be carried out using approved electromagnetic type thickness testing instruments. The instrument shall be calibrated as per the manufacturer's instructions or if not available ISO 2808: 194 Section 6 shall be followed. Instruments that have built in calibration steps these steps may be used to calibrate the instrument

1.9 During inclement weather the following will apply:

1.8.1 The contractor staff sent off site before 11h30 will be reimbursed for four hours.

1.8.2 The contractor staff sent off site after 11h30 will be reimbursed for actual hours worked

2. SCOPE OF WORK – PARTICULAR

- 2.1 Steel scaffold material for this contract must be “hot dip galvanised”. With the exception of the works that may deviate from this norm, the scope of that work will be more specifically described in each work order
 - 2.2 The estimated minimum requirement of 300 tons of scaffolding on site. These values are estimates and subject to change.
 - 2.3 Foreman to crew ratio per service comprises of the following DFL (Direct field labour);
 - a) Scaffolding crew (1:2) - 1 Charge Hand, 1 Fixer and 1 Assistant
 - b) Painting crew (1:3) – 1 Gritblaster, 1 Painter, 1 Pot Operator, 1 Assistant
 - c) Insulation crew (1:3) – 1 Sheetmetal Worker, 1 Sheetmetal Applicator, 1 Assistant
- The above ratios are subject to changes depending on the scope of the projects (General Maintenance, Mini Projects, Major Projects) after approval of the SANPC Refinery/ CEF Project/ Construction Manager.
- 2.4 Defective scaffold materials must be removed from site.
 - 2.5 Scaffold contractor will sub-contract a specialist service provider for special scaffolding required by SANPC Refinery. Before erection the design shall be approved by a registered structural engineer sub-contracted by the contractor.
 - 2.6 Safety harnesses shall be used by the scaffolders during erection and dismantling of scaffolding.
 - 2.7 During erection and dismantling of scaffolding the team passing material shall not work directly under the person above while passing material to avoid being in the line of fire.
 - 2.8 Scaffold tags to be attached to all scaffolding indicating inspection dates as well as the proper colour coding and any special requirements.
 - 2.9 Scaffold to be inspected, tagged and signed by designated competent persons.
 - 2.10 Scaffold tools must be fitted with lanyards.
 - 2.11 All painting work to be in accordance with specification Civil Paint 01.
 - 2.12 All Insulation work to follow specification 102CS02.
 - 2.13 All work completed must be accepted/ signed off by the relevant SANPC Refinery Engineer or designated representative.
 - 2.14 The contractor is expected to have a standby crew to respond to call-outs after hours and weekends for emergencies. The response time from the time of request is expected to be 4 hours.

3 SCOPE OF THE WORKS - GENERAL

- 3.1 The description given below defines the general requirements particular to the scope of the works and is to be read in conjunction with the other documents forming the Tender and/or the agreement as the case may

be. Procedures for work order shall follow the sequence of events as per Central the Planning Workflow and as outlined in 3.1.1 to 3.1.11 below:

3.1.1

- a) SANPC Refinery/ CEF normally uses individual work order numbers to apportion the works. The contractor will be required to use the job cards system for call-offs (pricing) and the SANPC Refinery/ CEF job card system for progress reporting of the works in conjunction with the duly authorised SANPC Refinery/ CEF Zone Supervisor. SANPC Refinery/ CEF will provide the level 1 schedule (overall schedule – early start and late finish) for the contractors planning and execution.
- b) The contractor is required to provide man-hours expended to execute the work from the schedule of prices, and compare against those listed in the man-hour norms for the job. The overall schedule will be compared against the initially agreed schedule.
- c) This information will be used in the KPI measures.

3.1.2 The Area Engineer or the duly authorised person , together with the Zone Supervisor identifies the required maintenance work, where after a priority is placed against each maintenance activity.

MAINTENANCE PRIORITISATION TABLE

PRIORITY	PRIORITY/RISK LEVEL	START DATE	INITIALCOMPLETION PERIOD
C	Routine	Request Date + 30 days	3 Months
B	Routine	Request Date + 14 days	1 Month
A	Schedule Breaker	Request Date + 1 days	1 Week
E	Emergency	Immediate	ASAP + Overtime

Priorities A, B, C & E are scoped by the respective Zone Scooper or the discipline Artisan.

A work order number is assigned to the scope and job card is issued to the contractor. Emergency Status Classification will be the 'A' and 'E' priority jobs. In such a case the Area Engineer agrees upon the staffing and general planning requirements with his execution Team (Scoper, Planner, Zone Supervisor and the Contractor). The Area Engineer confirms the release of the works and identifies which lower priority job(s) can be postponed to accommodate the Emergency priority job.

- a) An 'E' priority job is supposed to commence immediately and shift work is to be effected, and an 'A' priority job will require the contractor to commence within 24hrs of receiving the scoping form and order number. An 'A' priority job may require extended hours to be undertaken by the dayshift crew.
- b) In the event that the contractor resources in the Zone are insufficient for the Emergency Job, then the Area Engineer/Maintenance Supervisor

/Manager is to be consulted as he/she has overview of all resources, and is in the position of suggesting what jobs across site could be postponed to accommodate the 'E' priority job.

- c) For an 'E' priority job after hours, the Planner is to immediately issue a job card for the work to start. In the event the 'E' priority job occurs outside of normal working hours, the system generated job card with a valid work order number will be issued at the beginning of the next normal working day.
- d) The contractor is expected to obtain the necessary permits and proceed with the works. The workflow from here shall proceed in the same manner as for normal priority works.

3.1.3 For (A, B, C & E) priority work a scope of work package, in the form of a Contractor Work Request (CWR), is generated in SAGE by the Area Scoper. A job card is generated by the Zone Scoper and followed up with a manual scoping form to the contractor. The contractor estimates the cost and man hours for a CWR, in accordance with the Schedule of prices, and returns the estimated CWR in electronic format to the Area Engineer. The Area Engineer evaluates and awards the contractors estimated CWR.

- a) When awarded, the contractor compiles a Work Pack which includes the relevant drawings and Material Take-off's (MTO's) etc.
- b) Normal Status Classification will be the 'B' & 'C' priority jobs. The 'B' Priority job would require the Contractor to commence with work within 2 weeks of receipt of the scoping form and order number. The 'C' priority job would require the contractor to commence 30 – 90 days after receipt of scoping form and order number. Should a new Safety Certificate be required, the lead time will commence from the time that the Safety Certificate has been approved. The Contractor's supervisor will, however, be required to facilitate the generation of the Safety Certificate.

3.1.4 The contractor presents the compiled work pack to SANPC Refinery/ CEF, which must be reviewed and verified in writing by the respective SANPC Refinery/ CEF authorities. SANPC Refinery/ CEF shall, at the same time, ensure that the material required is in stock or ordered. Central Planning draws up a 30-day look-a-head schedule, for review by the Area Execution Team including the contractor. From time to time, SANPC Refinery/ CEF may impose a limit to contractor numbers on site. The resulting imposed limit will be disclosed upfront per area.

3.1.5 After confirmation with all relevant parties in the Weekly planning meeting, the Planner issues a seven-day look-ahead level 1 schedule. From that schedule, job cards will be issued to the relevant contractor. The seven-day schedule will be extracted from the monthly schedule.

- a) The contractor is to ensure that the relevant QCP, Work-pack is approved and that the permits are obtained at the latest by close of business of the

day prior to the planned start date.

- b) The contractor supervisor/ clearance receiver is to ensure that the Operations/ Production focal point is aligned with the request to undertake the work scope and discussions around safety measures discussed a day before work
- c) Thereafter the contractor is to get daily clearances for each activity from the respective Maintenance Services Focal Point (MSFP) before commencing with the works.

3.1.6 In the event of any variations to the scope of the works, SANPC Refinery/ CEF Authorised person (Area Engineer, the Zone Planner, the Zone Scoper) and the contractor shall identify such variation/s and this must be recorded. The contractor shall include such variations into the work pack. A variation order (VO) shall be raised and approval by the Area Engineer before the extra work commences.

- a) Execution of works without a job cards will not be accepted.

3.1.7 The contractor must submit the job cards to the Planner for progress reporting. These job cards must be signed by the Discipline Supervisor as verification that the work is completed to the required standard and to process payments.

3.1.8 The Planner updates all progress and also closes off the work upon issue of the handover/takeover certificate from the contractor to the Area Engineer or his designate.

3.1.9 The contractor shall ensure that all necessary insulation and painting checklist are available for scrutiny by the SANPC Refinery/ CEF Scaffold Co-ordinator or an authorised person.

3.1.10 Quality of workmanship must be verified by duly appointed persons for painting, blasting and scaffolding which will be on record as part of the contractor workpacks.

3.1.11 All material specifications (paint, solvents, grit, and scaffold materials) must be as per SANPC Refinery/ CEF standards. If at any instance the specifications are not clear then the Area Engineer is to be consulted for guidance and resolution.

3.2 SANPC Refinery/ CEF may require the contractor to prepare a work pack prior to commencement of the works, which may include:

- a) Health, Safety and Environment Action Plan;
- b) Method Statement;
- c) Quality Plan;
- d) Completion of the SANPC Refinery integrated Risk Assessment Method Statement procedure ("RAMS"); and
- e) Any other requirements as dictated by SANPC Refinery

4 Standby Callouts, After Hours

- 4.1 The contractor must be able to cater for emergency maintenance requirements outside of the "normal working week" hours. The Tender submission must identify the extent of the contractor's ability to provide the required coverage. There must be a standby system available which will have the following skills as a minimum:
- 4.1.1 Scaffolding- Working Foreman (Clearance Receiver), 1 Charge Hand, 1 Fixer and 1 Assistant
 - 4.1.2 For call out of other contractor resources the contractor is to have a senior staff member available by (cellular) phone, which can mobilise emergency crews as required.

5. ADMINISTRATION PROCEDURES

5.1 Meetings

- 5.1.1 The following meetings are compulsory for contractor's representative to attend:
- a) Daily planning and progress meetings as directed by Area Engineer and/or the Zone Planner)
 - Weekly look-ahead meetings as directed by Area Engineer and/or the Zone Planner.
- 5.1.2 The following meetings are compulsory for the contractor Site Manager to attend:
- a) Weekly 'Heads up' Central Planning Meeting.
 - b) Monthly KPI review meeting
 - c) Quarterly performance and safety review meetings or as directed by the CCM.
- 5.1.3 The contractor shall be responsible for populating the KPI review documents as set out by the CCM, as well as distribution and keeping records of the minutes of meetings. The contractor is to ensure that the minutes are agreed and signed off within two (2) weeks from when the meeting was held.
- 5.1.4 The purpose of this is to report progress of the works and other matters pertaining to this agreement. The criteria and time-table for the meetings shall be set by SANPC Refinery.
- 5.1.5 Any other meetings as directed by the CCM and/or Central Planning Manager from time to time.

5.2 Planning and Progress

- 5.2.1 SANPC Refinery shall provide the contractor with a 30-day look-a-head schedule outlining planned windows for activities. The contractor is to manage and administer the manpower resources as such to enable him to comply with the defined service levels and meet the required works order completion dates, irrespective of absenteeism or leave. The contractor must ensure these

objectives are fully understood and that management structures and procedures are in place to ensure timeous and successful execution under the above-mentioned constraints.

- 5.2.2 The contractor is responsible to plan, supply, coordinate and manage his manpower, logistics, equipment and materials resources for the works in accordance with the schedule from Central Planning as a guide. The coordination, progress monitoring and reporting is the responsibility of the contractor and shall take place at the daily progress meetings. These meetings shall be recorded (as per respective meeting's criteria) by the Zone Planner and agreed to or signed by the contractor. The contractor shall update his plan, and provide progress at the daily and weekly progress meetings.
- 5.2.3 The contractor is to arrange and coordinate with the required SANPC Refinery personnel, all RAP sessions in order to ensure that work starts timeously.
- 5.2.4 The operations of SANPC Refinery and interconnecting facilities in outlying areas will be carried out continuously during the period of this agreement, and the contractor shall allow for working in close proximity to and in liaison with other contractors in order to minimise inconvenience and shall plan for flexibility in labour resources input and any other factors in complying with these restrictions.
- 5.2.5 Restrictions may be imposed upon the contractor in his execution of the works as a result of SANPC Refinery's operations. The contractor is to immediately notify SANPC Refinery (Area Engineer and the Operations Manager) in writing, of such an interruption. The contractor along with the Area Engineer shall re-coordinate the manpower to other available sections, areas, items of equipment in order to minimise standing time.
- 5.2.6 All priority "E" and "A" work to be clearly defined by the Area Engineer and closely coordinated with the CCM. The Planner/Planning Manager will ensure that the necessary job cards are raised within 24 Hrs (or the next normal working shift). The contractor Supervisor and the Supervisor will both sign the Job Card for progressing purposes.
- 5.2.7 The contractor shall, at all times, demonstrate positive and proactive participation in the efficient execution of the works in order to achieve satisfactory levels of productivity.
- 5.2.8 The contractor is to note that whilst the overall scope of works must be completed in the required time, the contractor must ensure that by proper preparation and quality execution the planned man-hours are not exceeded.
- 5.2.9 The contractor's attention is drawn to the fact that the works to be executed may be in the vicinity of insulated pipework, equipment and electrical and instrument installations. The contractor shall be held responsible for any damage caused to these or any other installations by his operations. If damages are identified prior to commencing work, the Area Engineer or the Supervisor must be notified of such damages immediately.
- 5.2.10 Access to and from the worksite is by means of existing hard roads or temporary

access roads and will be through such gates and by such routes as will be defined by SANPC Refinery. The contractor is to operate his own vehicles with minimum of inconvenience to other traffic at the refinery sites.

- 5.2.11 All electrical equipment brought on site for work execution must be inspected and approved by the SANPC Refinery electrical department.

5.3 Staff Issues

- 5.3.1 As a control system the contractor is to supply a full organogram with functions and names of all resources to SANPC Refinery. In the listing, a distinction will be made between core resources (always based at) and additional labour pool. The contractor will also submit to SANPC Refinery detailed skill testing procedures, indicating his benchmarking criteria for evaluating all levels of manpower and supervision in his organisation. SANPC Refinery reserves the right to evaluate all candidates and will be given full personal details (CV, skill test results) on request. SANPC Refinery reserves the right to assess all contractor supervisors before they report for work at the SANPC Refinery sites.
- 5.3.2 SANPC Refinery shall have the right to assess the contractor's core resources and performance on a continuous basis for the duration of this agreement.
- 5.3.3 Only approved resources may be used by the contractor. Changes in core resource staff shall be justified to and approved by the SANPC Refinery CCM, whose approval will not be unreasonably withheld. (This includes non-recoverable resources).

6 DIVISION OF RESPONSIBILITIES

Definitions:

- E Execute
- P Participate
- A Approve
- S Supply
- M Maintain

6.1 Division of Responsibilities - Work Descriptions

The following work descriptions define the division of responsibilities with respect to the work required and exclusions from the agreement scope of work:-

Work Description	By CONTRACTOR	By Others	By SANPC Refinery/ CEF
Timeous Application for Work Permit	E		
Issue of daily work permits			A
Gas Testing			E

Work Description	By CONTRACTOR	By Others	By SANPC Refinery/ CEF
Quality Checking	E		P/A

6.2 Division of Responsibilities - Provision of Construction and associated Equipment

The following defines the division of responsibility with respect to the provision of construction and associated equipment for the implementation of the **agreement** work:

Equipment Description	By CONTRACTOR	By Others	By SANPC Refinery/ CEF
Transportation	S		
Site huts, ablution facilities, storage and where required services	M		S
Lighting – General			S/M
Required protective clothing and equipment include. B.A. Compressor	S/M		
Cranage		S/M	
Lifting gear, ropes, slings and shackles			S/M
Safety Equipment	S/M		
Firefighting facilities			S/M
Resuscitator			S/M
Standby B.A. set			S/M

6.3 Division of Responsibilities - Supply of Installed Equipment and Materials

The following defines the division of responsibility with respect to the supply of installed equipment and materials required for the agreement work:

Task Description	By CONTRACTOR	By Others	By SANPC Refinery/ CEF
Identify work and raise PCS			E/A
Prepare and issue detailed scope of work			E
Price	E		A
Rates for non-bill items	E		A
Plan sequence of work	E		A
Carry out the work	E		
Progress reporting	E		A
Prepare V.O	P		E/A
QA (Scaffold Register)	E		A
Handover (ready to use)	E		A

The above noted items are intended to be indicative of the categories of work to be undertaken. They are not intended as a comprehensive list of the same.

7 DRAWINGS

- 7.1 Drawings/ sketches may be issued by SANPC Refinery/ CEF as required to clarify written instructions given but in principle the contractor is responsible for obtaining drawings from the drawing office or from the computerised system. Non-receipt of an AFC drawing will not relieve the contractor of its obligations in respect of as-built drawings.

8 SPECIFICATION

- 8.1 The latest Standard Specification for Painting and Corrosion Protection is 102-CS01 Rev M- Attachment 1
- 8.2 The Standard Specification for Insulation 102-CS02 – Attachment 2