

Annexure A

SERVICE REQUIREMENTS

SCOPE OF WORK- SUPPLY OF INSPECTION RESOURCES

1. INTRODUCTION

- 1.1 The scope of works covers Statutory in- service inspections, manufacturing quality control and assurance inspections and project related activities to be undertaken by the Inspection Contractor. The nature and type of works to be carried out can be assumed from the description of rates listed in the Schedule of Prices, although this list is not exhaustive. Works will include all major and minor maintenance and project requirements for in-service inspections and repairs or new work at the SANPC Refinery site.
- 1.2 SANPC Refinery require relevant qualified inspection resources to support pressure equipment integrity management (PEIM). This includes inspections activities to detect and predict erosion, corrosion and other material weaknesses that will impact on the safe operation of the plant equipment.
- 1.3 The Inspection Contractor would be utilized for shorter defined periods on an ad-hoc basis and would expect to agree to standard rates for when they are required against the contract terms & conditions.
- 1.4 The Inspection Contractor shall supply all labour, supervision, consumables, materials, equipment, instruments, tools, services and transport required to undertake the service.
- 1.5 Apart from the works that may deviate from this norm, the scope of that work will be more specifically described in each work order.
- 1.6 Work performed will be measured and remuneration shall be based on the Schedule of prices.
- 1.7 The Inspection Contractor shall not, without the prior written consent of SANPC Refinery make any alteration or addition to this Scope of Work.
- 1.8 The location of work activities will be at the SANPC Refinery mainly however, IPE inspectors could be at other locations across South Africa dependent on the Manufacturer of the equipment or off-site at locations along the SANPC Refinery transfer line to the Island View Terminal.

2. SCOPE OF WORK – PARTICULAR

2.1 Statutory Inspections:

- 2.1.1 CP Inspector will carry out statutory inspections under the directive of the SANPC Inspection Manager or designate.
- 2.1.2 The Inspector will use the equipment templates for internal and external inspections.
- 2.1.3 The Inspector may be required to carry out inspection on pressure piping, a template to be also developed and used for piping inspection.
- 2.1.4 The Inspector will capture all his inspection findings on a report to the Supervisor.
- 2.1.5 The Supervisor will verify the data and then report on findings and recommendations to SANPC Inspection Manager or designate.
- 2.1.6 The Inspector is expected to witness hydrostatic pressure tests. He will ensure he has the correct test pressures which must be verified by Inspection Supervisor
- 2.1.7 The Inspector may be requested to witness and sign-off of testing of safety relief valves.
- 2.1.8 The Inspector will work to the latest codes and standards.
- 2.1.9 The Inspection Contractor resources (Inspector and AIA) to ensure reports are compiled and signed off before equipment is put back in service. SANPC Refinery will provide information available from previous records.
- 2.1.10 The AIA must verify, approve and sign off the design changes on new or old pressure equipment and/ or components.
- 2.1.11 The AIA must verify, approve and sign off the completed data pack/book before releasing into service.
- 2.1.12 The AIA and Inspector shall ensure SANPC Refinery comply with all the statutory requirements.

2.2 Hotwork Fabrications, Modifications and Repairs:

- 2.2.1 SANPC Refinery employs Inspection Contractors to monitor cold work and hotwork activities. The Inspection Contractor staff will include resources to undertake scope that will require quality control, welding

and pipe fitting resources.

- 2.2.2 The Inspection Contractor will provide evidence of qualifications and training records for the relevant resources. Workpacks will be reviewed for each hotwork activity which will include QCPs, scope of work drawings and material certifications. All documents will be made available for the Inspection Contractor resources (Inspector and AIA).
 - 2.2.3 All workpacks will be checked by the inspection Contractor and signed off before any work begins. All “hold points” will be specified and signed off by the inspection Contractor as per SANS 347 requirements.
 - 2.2.4 The Inspection Contractor personnel must work closely with appointed Mechanical Contractor personnel in handling all day-to-day pressure equipment and welding activities including document control and compliance as per the PER and Government Legislation at any given time.
 - 2.2.5 Final sign-off shall be by the Inspection Contractor before any pressure equipment or component is put into service.
- 2.3 Inspection resources qualifications criteria:
- 2.3.1 CP (PV) Qualified Inspectors - Qualifications / Skills
 - Relevant certification for a CPPV with SAIW
 - NDT experience (MT/PT/RT/UT)
 - Minimum of 2 years’ refinery experience
 - Good communication skills
 - 2.3.2 API 570 Qualified Inspectors - Qualifications / Skills
 - Relevant certification with the American Petroleum
 - NDT experience (MT/PT/RT/UT)
 - Minimum of 2 years’ refinery experience
 - Good communication skills
 - 2.3.3 SAQCC Level II Welding Inspectors - Qualifications / Skills
 - SAQCC Level II Welding Inspector
 - NDT experience (MT/PT/RT/UT)
 - Minimum of 4 years’ refinery experience
 - Good communication skills

- 2.3.4 IPE Inspectors – Qualification / Skills
 - Relevant certification for IPE with SAIW
 - NDT experience (MT/PT/RT/UT)
 - Minimum of 2 years' refinery experience
 - Good communication skills
- 2.3.5 AIA – Qualification / Skills
 - Relevant certification/ appointment, be in possession of relevant codes that must be up to date in accordance to latest amendments of legislation
 - Minimum of 3 years' refinery experience
 - Good communication skills
- 2.4 The inspection Contractor will conform to the OHS ACT and Pressure Equipment Regulation (PER)Applicable Codes of Practice.
- 2.5 The inspection Contractor will follow all the requirements of SANPC Refinery and work to the relevant code and standards as outlined in the Quality System.
- 2.6 The inspection Contractor shall ensure that properly authorised documents required to permit safe execution of work are obtained from SANPC Refinery. These include but are not limited to Clearances Certificate, Safety Certificate, RAMS etc. No work will be executed on site without a valid permit for the area.
- 2.7 The inspection Contractor shall maintain detailed records of all inspections, findings, and recommendations.
- 2.8 The work as generally described may be carried out in various areas across SANPC Refinery site and mainly consists of but not limited to the following:
 - 2.8.1 South Tank Farm (STF)
 - 2.8.2 Northern Tank Farm (NTF)
 - 2.8.3 Bitumen
 - 2.8.4 Solvents
 - 2.8.5 LPG Gas

2.8.6 Process Plants (NZ, SZ, CZ)

2.8.7 Oil Movements

2.8.8 Utilities

2.8.9 Offsites

However, SANPC Refinery may require the Inspection Contractor to carry out work outside the SANPC Refinery precinct such as repairs along the path of SANPC Refinery transfer lines.

2.9 Competent, Nominated Responsible Persons for Health and Safety must be appointed in writing, by the Inspection Contractor to oversee the execution of the works and to liaise with SANPC Refinery personnel. These appointments must be in accordance with the Occupational Health and Safety Act (Act 85, 1993) and form part of the Inspection Contractor's HSSE File.

2.10 The Inspection Contractor shall ensure that it maintains its SANAS accreditation to SANS 10227 and ISO 17020 throughout the duration of the contract. CEF/SANPC Refinery shall be immediately advised of any major finding emanating from a SANAS audit and provided with proof that these have been closed to the satisfaction of the SANAS Accreditation Manager. Suspension of the Inspection Contractor's SANAS accreditation shall result in immediate cancelation of this contract as per Clause **(to be included during the legal clauses of the contract)**

2.11 The Inspection Contractor's supervisors will be required to attend safety meetings, job kick off meetings and any subsequent planning/progress meetings. This may involve meetings and liaison with other parties.

2.12 **In emergency situations the Inspection Contractor must respond and have the required resources at the SANPC Refinery within 4 hours of receiving the request.**

2.13 Quality Assurance- The Inspection Contractor shall have the necessary quality assurance codes and procedures in place, which must be audited and approved by SANPC Refinery.

2.14 All work shall be to the satisfaction of the SANPC Refinery Inspection

representative and will generally be in accordance with the recognised codes and standards.

- 2.15 The SANPC Refinery Inspection Manager/Superintendent shall be at liberty to object to any person employed on the site by the Inspection Contractor who shall be found to be unsuitable in respect of qualification, workmanship, safety, equipment and/or machinery, behaviour, misdemeanours, horseplay and negligence. The SANPC Refinery shall not be responsible for the demobilisation of personnel under the above listed circumstances. The Inspection Contractor shall immediately replace the person (s) so objected to.
- 2.16 Inspection Contractor shall carry out required Inspection scope, including re-work caused due to poor inspection quality (poor workmanship) as indicated by the Inspection Department representative during a period of 1 month after the issue of a final report. The Inspection Contractor shall carry the costs for the re-work.
- 2.17 In addition to the legal requirements and regulations applicable to the Services, the following shall also apply:
 - 2.17.1 No Services shall be carried out on site unless a work permit has been issued.
 - 2.17.2 No work shall be carried out without a proper risk assessment being conducted by personnel and copies of risk assessment forms to be properly saved in the Inspection Contractor's workpack.
 - 2.17.3 All personnel will be subjected to alcohol screening and random drug testing before entering any SANPC Refinery site. No personnel will be allowed to enter SANPC Refinery site if their alcohol level is above the required limit as per SANPC Refinery procedure.
 - 2.17.4 The Inspection Contractor shall ensure adherence to all SANPC Refinery security requirements.
- 2.18 Reporting requirements:

- 2.18.1 The Inspection Contractor shall keep accurate records of inspections performed.
- 2.18.2 The Inspection Contractor's billable man-hours will be determined by the SANPC Refinery security clocking system with time sheets signed off by the SANPC Refinery Inspection department personnel or designate. The Inspection Service Provider shall be fully briefed regarding the workings thereof.
- 2.18.3 Equipment drawings and photographs shall form the minimum reporting criteria. For pipeline inspections, a copy of the isometric drawing must be included in the report. All final hardcopy reports shall be submitted before the Inspectors leave SANPC Refinery site. A report transmittal form must be attached to the final reports.

2.19 SANPC Refinery will provide the following utilities free of charge to the Inspection Contractor unless specifically excluded elsewhere:

- a. Scaffolding
- b. Cranes
- c. Electrical distribution board in lay-down area
- d. Water
- e. Work permits

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 job card shall follow the sequence of events as per Central the Planning Workflow and as outlined in 3.1.1 to 3.1.10 below:

a) SANPC Refinery normally uses individual job card numbers to apportion the works. The Contractor will be required to use the job card system for call-offs (pricing) and the SANPC Refinery job card system for progress reporting of the works in conjunction with the duly authorised SANPC Refinery Zone Supervisor.

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.

3.1.1 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.

A job card 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 are insufficient for the Emergency Job, then the Area Engineer 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 Manual job card for the work to start, and the system generated job card 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.
- 3.1.2 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.
- 3.1.3 The Contractor presents the compiled work pack to SANPC Refinery, which must be reviewed and verified in writing by the respective SANPC Refinery authorities. SANPC Refinery shall, at the same time, ensure that the material required is in stock or ordered.
- 3.1.4 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 QCPs and Workpack is approved and that the permits are obtained at the latest by close of business of the day prior to the planned start date.
 - 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.
- 3.1.5 In the event of any variations to the scope of the works, SANPC Refinery 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.

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

- 3.1.6 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.
- 3.1.7 The Planner updates all progress and also closes off the work upon issue of the handover/takeover certificate from the Contractor.
- 3.1.8 Quality of workmanship must be verified by duly appointed persons for all categories of work which will be on record as part of the Contractor workpacks.
- 3.2 SANPC Refinery may require the Contractor to prepare a workpack 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 ("RAMS"); and

4 SAFETY

- 4.1 The Contractor and Contractor personnel must comply with requirements prescribed by the OHS Act 85 of 1993.
- 4.2 The Contractor will also comply with the SANPC Refinery rules and regulations.
- 4.3 The Contractor safety officer will ensure that regular audits are done on site to identify and intervene on unsafe situations and near miss acts during work execution. Any findings to be reported and recorded in the SANPC Refinery

incident management system.

- 4.4 All incidents to be reported to the relevant clearance issuers and maintenance supervisors.

5. ADMINISTRATION PROCEDURES

5.1 Meetings

- 5.1.1 The following meetings are compulsory for Contractor's representative to attend when any work is in progress:

- a) Daily planning and progress meetings as directed by Area Engineer and/or the Zone Planner.
- b) 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) Monthly KPI review meeting
- b) Quarterly performance and safety review meetings or as directed by the CCM.

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. The Contractor is to arrange and coordinate with the required SANPC Refinery personnel, all RAMS sessions in order to ensure that work starts timeously.

- 5.2.3 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.
- 5.2.4 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 CCM 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.
- 5.2.5 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.
- 5.2.6 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.
- 5.2.7 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.
- 5.2.8 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.

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

5.3 Contractor Organisation and Training

- 5.3.1 All workers are to undergo training through a SETA/QCTO approved Training facility.
- 5.3.2 In the event that the candidate is found to be not coping with the work, SANPC Refinery reserves the right to insist on change for a more suitable candidate.

5.4 Staff Issues

- 5.4.1 As a control system the Contractor is to supply a full organogram with functions and names of resources to SANPC Refinery. SANPC Refinery reserves the right to assess all Contractor supervisors before they report for work at the SANPC Refinery sites.
- 5.4.2 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.
- 5.4.3 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.

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
Timeous Application for Work Permit	E		P
Issue of daily work permits			A/E
Gas Testing			E
Quality Checking	E		P/A

6.2 Division of Responsibilities - Provision of Construction and associated Equipment

Equipment Description	By CONTRACTOR	By Others	By SANPC Refinery
Transportation	S		
Site huts, ablution facilities, storage	M		S
Lighting – General			S/M
Required protective clothing	S/M		
Cranage		S/M	
Lifting gear, ropes, slings and shackles			S/M
Fire fighting facilities			S/M
Resuscitator			S/M
Standby B.A. set			S/M

6.3 Division of Responsibilities – Planning and Scoping

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
Identify work and raise Job card			E/A

Task Description	By CONTRACTOR	By Others	By SANPC Refinery
Prepare and issue detailed scope of work	S/P		A
Pricing	E		A
Rates for non bill items	E		A
Plan sequence of work	E		A
Carry out the work	E		A
Progress reporting	E		A
Prepare V.O	P		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 as required to clarify written instructions given.