METHOD STATEMENTS
AND
PROCEDURES

Prepared by:

AMCO
General Contracting

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Blasting / Painting
And Paint Repair

METHODE STATEMENT
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Steel Pipe/ Steel Structure
And Equipment’s
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1.0 Scope
1.1 This construction Method of Statement (MS) covers the control of paint materials and the procedure to be followed in the course of surface preparation, painting/coating application, inspection and safety requirements for aboveground piping & steel structure, equipments & pipes repairs for CPF.

2.0 ABBREVIATIONS
The following abbreviations are used in this document:
• CPF Central Processing Facility
• EPC Engineering, Procurement and Construction.
• EMPLOYER:
• CONTRACTOR:
• SUBCONTRACTOR
• MS Method Of Statement

3.0 Reference Documents
3.1 Project specification.
3.2 Project Drawings.
3.3 Project Quality Documents.
3.4 Vendor Instruction.

4.0 Material Control
4.1 All materials send to the job site should be inspected in accordance with the procedure for material's loading, unloading, data sheets, storage and distribution. In addition, coating material shelf life shall be checked for expiry date.

4.2 All coating materials shall be delivered to the job site in original unopened containers with labels intact.

4.3 Each container of paint shall be clearly marked or labeled to show paint identification, date of manufacture, batch number, analysis of contents, identification of all toxic substances, and special instructions.

4.4 Coating material shall be stored in a location that is protected from the elements, well ventilated and free from excessive heat, open flame, or other sources of ignition in accordance with the manufacturer recommendation and procedure.
4.5 Type of blasting abrasive shall be approved by contractor.

5.0 Inspection Equipment
5.1 The following inspection equipment shall be kept available during blasting and painting operations:

a) A temperature gauge and a hygrometer.

b) Surface profile gauge.

c) Wet film thickness gauge.

d) Dry film thickness gauge (for DFT measuring 25 μm to 5 mm).

e) Holiday detector.

NOTE: Surface profile Gauge & Dry film Thickness must be able to gauge flat and round surfaces.

6.0 Blasting And Coating Equipment
6.1 The type of surface preparation by power tools or painting blasting and coating equipment shall be as per specification, coating material manufacturer’s recommendation and as approved by employer including as follows:

6.1.1 Power tool cleaning equipment

6.1.2 Dry abrasive blasting equipment

6.1.3 Air spray equipment

6.1.4 Airless spray equipment ( if necessary )

6.1.5 Brushes

6.1.6 High density battery powered light for internal coating

6.1.7 Ventilation equipment
6.2 All the equipment shall be ready and checked as being in good within working order prior to and during blasting and coating operations and shall be kept in a sufficiently clean condition to avoid surface and/or coating contamination.

7.0 General
7.1 Work shall be done by qualified personnel in a neat and workmanlike manner conforming to all applicable project specification, carry out any type of surface preparation and painting or coating qualification prior proceeding with actual work.

7.2 All coating shall be done in accordance with manufacture’s recommendations. Where specifications contained herein conflict with manufacturer’s recommendations the conflict shall be referred to CONTRACTOR for written clarification prior to the commencement of work.

7.3 The numbers of coating and the thickness of coating should be in accordance with approved AFC drawing or project specification.

8.0 Atmospheric environment Conditions
8.1 The paint work shop supervisor(Applicator) shall measure the ambient conditions at regular intervals prior to and during of any type of power tooling or blasting painting/coating, and keep records of prevailing temperature, humidity and dew point.

8.2 No surface preparation or application of material may take place above the dew point or when steel surface temperatures are less than 3 °C or above 50 °C at the time of coating.

9.0 Surface Preparation
Surface preparation shall be in accordance with paint manufacturer’s instruction and project specification, whether blast cleaning, power tool, hand tool or solvent cleaning.

9.1 General
9.1.1 Surface preparation shall be done in accordance with painting reference surface preparation specifications defined in project specification/paint manufacturer.

9.1.2 The blast cleaning abrasive shall be determined by project specification in order to comply with the standard. Only abrasive approved by the CONTRACTOR
will be acceptable for use as a blast medium.

9.1.3 The abrasive shall be dry and free from oil, grease, dust and other impurities. Re-usuable abrasive shall be clean and reasonably sharp, contain no rust or noticeably worn abrasives.

9.1.4 Blast cleaning shall not be permitted where adjacent areas or equipment are not sufficiently protected from contamination by abrasive dust or debris.

9.1.5 Blast cleaning shall not be permitted in areas close to painting operation to prevent contamination of wet paint film by dust and grit.

9.1.6 All organic substance such as oil, grease, and other contaminants shall be removed in accordance with specification prior to blasting operations.

9.1.7 All rough welds, burrs and sharp surface projections shall be ground smooth and all weld spatter shall be removed prior to blasting operations.

9.1.8 The compressed air supply used for surface preparation must be of sufficient pressure and volume to prepare the surface to the degree specified and shall be free of oil and water.

9.1.9 During blasting, the rise face flanges must be protected at all time. This should be done by covering the rise surface with a round plate that covers exactly the rise surface diameter.

9.2 Power-tool Cleaning
Power-tool cleaning shall be to a visual standard in accordance with project specification. Power-tool cleaning shall be done using abrasive or wire-type power discs. Power-tool cleaning shall extend a minimum of 25mm distance into adjoining coated surfaces.

9.3 Hand-tool Cleaning
Hand-tool cleaning is the least effective of the surface preparation methods, but it may be used for touch-up/repair maintenance with certain surface-tolerance coating systems. Hand-tool cleaning shall be a visual standard in accordance with project specification. Cleaning shall be done with brushes, scrapers, sanders or other hand impact tools.
9.4 Solvent Cleaning
Solvent cleaning shall be done in accordance with project specification “Solvent Cleaning” on the surface examined for the presence of oil or grease.

10.0 Mixing and Thinning

10.1 Paint shall be mixed in accordance with manufacturer’s instruction and as per specification.

10.2 Mixing method shall be applied in accordance with the paint manufacturer recommendation.

10.3 All pigmented paint shall be strained after mixing except where application equipment is provided with strainers. Strainers shall be of a type to remove only skins and undesirable matter but not to remove the pigment.

10.4 Where a skin has formed in the container, the skin shall be cut loose from the sides of the container, removed and discarded. If the volume of such skin is more than 2% of the remaining paint, the paint shall not be used.

10.5 Mixing in open containers shall be done in a well ventilated area away from sparks or flames.

10.6 Paint shall not remain in spray pots, painter buckets, etc., overnight, but shall be stored in a covered container and re-mixed before use.

11.0 Painting/Coating Application

11.1 General

11.1.1 Painting/coating shall be applied in accordance with the paint manufacturer’s instructions and this procedure. Whether air spray, airless spray or brush.

11.1.2 Field painting on steel surfaces. Surface preparation shall be finished in accordance with this procedure Section 8.0 before application of primer.

11.1.3 Field painting on shop coating. Any previously applied shop coating must be dry and free of dirt, oil, and other contaminants.
11.1.4 Shop coated steel members shall preferably be field painted after erection of such members is completed. Steel members may be field painted on the ground before erection, provided such painting is touched-up where damaged, with the same number of coats and types of paints after erection. The top coat shall be applied after erection.

11.1.5 When the type of paint for field coating is not specified, it shall be approved and verified whether the paint to be used is compatible with the shop applied coat(s).

11.1.6 Surfaces (other than contact surfaces) of fabricated assemblies which are accessible before erection but which will not be accessible after erection shall receive all field coats of paint before erection.

11.1.7 All field welds and all areas within four inches of welds shall be cleaned before painting, using surface preparation methods at least as effective as those specified for the pipe/structure itself; all welds shall either be blast cleaned, or thoroughly power brushed.

11.2 Spray Application

11.2.1 All spray application of paint whether air, or airless spray, shall be in accordance with the following:

11.2.2 The equipment used shall be suitable for the intended purpose, shall be capable of properly atomizing the paint to applied, and shall be equipped with suitable pressure regulators and gauges. The equipment shall be maintained in proper working condition at all times.

11.2.3 Paint ingredients shall be kept uniformly mixed in the spray pots or containers during paint application either by continuous mechanical agitation or by intermittent agitation as frequently as is required.

11.2.4 Paint shall be applied in a uniform layer with a 50% overlap at the edges of the spray pattern, and 20 to 25 cm away from the surface.

11.2.5 Brush shall be painted for cracks, crevices, blind areas of all rivets and bolts, and all other inaccessible areas.
11.2.6 Paint manufacturer's instructions regarding pot life, drying/curing intervals between successive coats and final curing periods before assembly or transport, shall be followed.

11.2.7 Each layer of paint shall be allowed to dry for a period of time within the limits prescribed by the paint manufacturer, before the next layer is applied.

11.2.8 No coating shall be applied to edges prepared for field welds or within 50mm of these edges, except for a prefabrication or welding (shop) primer which shall be limited to a maximum 25 microns.

**11.3 Airless Spray Application**

11.3.1 Airless or high pressure spray application of paint shall be in accordance with all of the provision of Section 10.2.1 and in addition shall comply with following:

11.3.2 The air pressure to the paint pump shall be adjusted so that the paint pressure to the gun is proper for optimum spraying effectiveness in accordance with paint manufacturer's recommendation.

11.3.3 The trigger of the gun should be pulled fully open during all spraying to insure proper application of paint.

11.3.4 Airless paint spray equipment shall always be provided with an electric ground wire in the high pressure line between the gun and the pumping equipment. Further, the pumping equipment shall be suitably grounded to avoid the build-up of any electrostatic charge on the gun. The manufacturer's instruction should to be followed regarding the proper use of the equipment.

**11.4 Brush Application**

11.4.1 Brush application shall be done in areas which cannot be properly sprayed and for touch up maintenance where spray application is not practical.

11.4.2 Brush shall be of a type and size which permits proper application of paint. Round or oval brushes are most suitable for irregular surfaces such as bolts, weld, pitted steel, etc. Wide flat brushes shall be used for large flat areas.
11.4.3 Paint shall be worked into all corners and crevices.

11.4.4 Rugs and sags or other defects will not be permitted

11.5 Critical Internal Coating.
11.5.1 For critical internal coating of all crew supervisors, abrasive blasters and paint coating applicators shall be fully conversant with all aspects of the blasting and coating operations. All equipment i.e. lights, air extractor’s to conform to safety requirements.

11.5.2 The method of application used shall be governed by the coating manufacturer’s recommendation for the particular coating being applied. Method of application shall also be considered by the immediate vicinity where work will be carried out.

11.5.3 Warning notes shall be clearly paint specified: “COATED – DO NOT WELD – HANDLE WITH CARE”.

11.6 Detailed Painting System.
11.6.1 The detailed painting system shall conform to the CONTRACTOR approved AFC drawings, Painting Manual & project specification prior proceeding the works.

12.0 Drying/Curing
12.1 All drying and re-coat times shall be that specified by manufacturer and project specification.

12.2 Curing shall conform to the manufacturer’s recommendations. Force curing shall only be done in accordance with manufacturer’s recommendations.

12.3 Paint shall be protected from rain, condensation, contamination until dry to fullest extent practical.

12.4 No paint shall be subjected to immersion before it is thoroughly dried or cured.

13.0 Inspection and Testing
13.1 General
It shall be the responsibility of site engineer and inspector to conduct the test and inspection as follows in accordance with paint manufacturer’s application instruction and project specification. contractor shall monitor all tests performed by
subcontractor/ contractor. The following tests shall be performed at start-up and at specified intervals.

13.2 Environment Check
13.2.1 Before commencing work on surface preparation and coating, the atmospheric temperature and relative humidity shall be measured in order to determine the dew point. Relative humidity readings shall be measured a maximum interval of 2-hour.

13.2.2 Following determination of the dew point, the steel surface temperature shall be measured at regular 2-hour intervals. The steel surface temperature shall be 3ºC or more above the dew point during surface preparation as well as during coating.

13.3 Visual finished coating
13.3.1 The finished coating surfaces shall be of uniform color and free from pinholes, peeling, sags, and runs. etc.

13.4 Film Thickness Measurement.
13.4.1 The dry film thickness of individual coats and of the total coating system shall be checked at 5 random locations over areas representative of the work in progress. There shall be a check of at least one area on each horizontal, vertical and curved surface. For internal coating a minimum of 10 random areas shall be checked.

13.4.2 With the exception of areas such as welds, crevices, etc. the specified minimum dry film thickness shall not be exceeded by more than 50%.
13.4.3 Dry film thickness shall be measured with a coating thickness gauge suitable for given type of coating thickness range and substrate material (magnetic or nonmagnetic).

13.4.4 All inspection, measuring and test equipment should has a valid calibration certificates.

14.0 Repair Of Damaged Areas
14.1 Damaged painting and coating, and/or coating which does not pass the holiday detection test shall be repaired and retested to the satisfaction of CONTRACTOR.

14.2 The coating materials used for repair and maintenance shall be the same as the original materials.
14.3 The surface preparation method for repair will depend upon the size of areas to be coated and the repair coating materials required.

14.4 The area of the coating damage or holiday, along with the adjacent area of coating for a minimum of 25 mm on all sides shall be thoroughly prepared / abraded.

14.5 The painting repair method shall be as per paint manufacture’s specifications.

14.6 Repair coating shall be applied so that the final coat overlaps the surrounding sound coating for a minimum 25 mm.

15.0 Safety
15.1 Safety in blasting and painting operations are paramount. Both operators and supervisors must be fully conversant with all safety requirements associated with blasting and cleaning, scaffolding and access platforms, ventilation in enclosed areas, as per project safety plan.

15.2 All spraying equipment shall be earthed, all high lines checked daily, operators shall wear all approved safety equipment at all times when spraying operations are in progress, and warning signs erected when blasting work is in progress.

15.3 Protection of working area environment please refer to HSE plan.

16.0 Quality Record and Inspection Report
16.1 Daily reports shall be assured on all painting activities and recorded on blasting / painting inspection reports. These records shall be maintained and monitored by QC engineer who together with contractor/employer shall sign on all inspection reports which are included in the inspection and test procedures.

17.0 Revision Note
17.1 This MS shall be revised if it is found to be inadequate for purposed work upon completion of engineering/new construction practice/new site information or as requested by employer.
Construction Method Statement for

Erection and Dismantling of Scaffolding Structure
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1.0 SCOPE

This method statement covers the following activities in connection with the:

- Activities that require scaffolding structures

2.0 ACTIVITY HOLD POINTS

- Approved Construction Drawing
- Approved Permit to Work
- Risk Assessment endorsed for implementation
- Competent Supervision with current endorsement

3.0 HEALTH, SAFETY and ENVIRONMENT

See Appendix 1 - Risk Assessment

- Tasks mentioned in this method statement will be subject to toolbox talks by Sub-Contractor in-site before work commences on a daily basis.
- All personnel to have completed mandatory training requirements.
- All personnel shall undergo site safety induction and wear appropriate PPE as per required.
- All personnel aware of Emergency Response Procedure.

4.0 WORK SEQUENCE

1. Area must be cleared of rubbish or any other materials obstructions to scaffolding erection.
2. Base of scaffolding to be erected must be firm; level and well compacted if not erected on concrete or asphalt.
3. Barricade working area before scaffolding work begins.
4. Standards (Posts) of scaffolding must have Base Plates and Sole Boards.
5. Scaffolding must be levelled vertically and horizontally with the used of Spirit Magnetic Level.
6. Lifts of scaffolding must every two (2) meters maximum.
7. Scaffolding materials must ascended/descended with Pulley, Rope and Scaffolding Basket.
   Do not drop scaffolding materials.
8. Ladder must be installed as the erection of scaffolding rises up.
9. Diagonal Brace or Sway Brace must be installed for stability.
10. Proper connection of clamps on scaffolding tubes; Double Coupler for 90 degrees connection and Swivel Coupler for below or more than 90 degrees connection.
11. Wooden boards must have board clamps to avoid movement of boards.
12. Install Toe Boards and Railings (Top and Mid-Rail) to prevent falling hazards.
13. For scaffolding above six (6) meters in height, erect an out-rigger structure half the total height of the working platform if it cannot be anchored to the structural members.

14. Ladders installed must be on a 75 degrees (4:1) inclination for six (6) meters and below and for above six meters, it must be installed vertically and provide a rope grab and a landing at the mid-part of the total height of the scaffold.

15. Install Scaffolding Tag; Green Tag if complete and ready to use and Red Tag if not complete and unsafe to use.

16. For Dismantling of Scaffolding, sequence of work is; the LAST material which was installed will be the FIRST material to be dismantled.

5.0 PERSONNEL

Construction Manager:
Assigns responsibility for the activities to Supervisor Assigned to the work location.

HSE Manager
Assigns responsibility for Safety matters and safety monitoring to the HSE Supervisor assigned to the work location.

Construction Superintendent:
Responsible for the works under the method statement at his assigned work location.

HSE Supervisor:
Present during subcontractor activities for all Safety matters under this method statement

Sub Contractor Supervisor:
The PTW supervisor shall be present during work activities

Sub Contractor Safety Officers:
Officers will be present on site at all times during the activities and will oversee monitoring of safety and report to the HSE Manager.

The On-Site Work Team:
AMCO Supervisor                      Sub Contractor Supervisor
AMCO HSE Supervisor                  Sub Contractor Safety Officer
Truck Drivers                        Scaffolders
Banksmen (as required)               Labourers/Helpers
6.0 EQUIPMENT and MATERIALS

Equipment to be used in the execution of the works is listed below. Before mobilization, equipment will be inspected to ensure it meets all safety requirements. All equipment inspection certificates will be kept inside the equipment. A daily log book for inspection must be kept at site.

Table 2: Equipment Listing

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<td>Truck</td>
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<td>3</td>
<td>Forklift</td>
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<td>4</td>
<td>Pick-up/Canter</td>
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<tr>
<td>5</td>
<td>Diesel Generator</td>
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<tr>
<td>6</td>
<td>Pipe Cutter</td>
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7.0 REPORTING and RECORDS

Daily and weekly inspection reports, completed checklists, test certificates.
HARDNESS TESTING PROCEDURE
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1.0 SCOPE
This procedure defines method and extent of hardness examination to be carried out on pipe materials and weld joints using portable hardness tester.

2.0 References
Following documents shall be referred to in conjunction with this project.
  o ASTM E 110
  o GB088-2013-200-QA-SP-003 Welding of carbon steel piping and equipment in wet H2S services.

3.0 Personal
Examination shall be performed by personal trained and experienced in the use of portable hardness testing apparatus, procedures and method.

4.0 Equipments
Examination shall be performed with portable type hardness testing apparatus Vicker.

Operation principle
The equipments consist of vicker diamond attached to their end of a metal rod. This rod is excited into longitudinal oscillation by piezo-electric transducers. When a specific load applied to the diamond: it slightly penetrate the material under test and the mass coupled to the rod will give a shifting the resonant frequency which is directly proportional to area of identification. This shift is electronically detected and converted to hardness.

5.0 surface condition
Hardness test shall be made on properly ground surface of the weld metal or the area where hardness is to be known. The test load must match the surface quality of the material. The surface must always be free of any impurities (oil, dust… etc) and rust.

6.0 Examination
Hardness shall be determined as an average of three values (reading) equally spaced around weld diameter. The result shall be expressed in vicker hardness number. Any conversion to hardness shall be in accordance with ASTM E 140. Hardness test shall be performed after PWHT machine calibration shall be done using standards test block, and frequency of each time when the machine switched on.

6.1 Extent
Production hardness testing for piping welds (Groove, butt and branch connection welds) in sour service shall be as per client specification-100%.
The cap of the weld shall be surface smooth ground. Five measurements shall be taken on the weld metal and the highest and lowest reading shall be discharged and average of the three shall be taken as the result.
6.2 Time
Components subjected to post weld heat treatment shall be tested after the heat treatment.

6.3 Acceptances
The acceptance criteria shall be as in the project specification.

7.0 Identification

The following shall appear as a minimum on the report.
- Contractor
- Drawing no.
- Pipe spool no.
- Joint no.
- Material
- Equipment details
- Status as to prior or after Heat Treatment.
- Name of operator
- Operator signature
- Date of testing
- Hardness reading
- Extent of testing
- Accept/Reject
SUBCONTRACTOR RESOURCES AND METHOD OF PERFORMING THE WORKS
Subcontractor shall describe in detail its proposed method of performing the Subcontract Works and outline the Resources that Subcontractor intends to mobilize from award date/Effective Date through completion including all aspects of Subcontract Works. It shall include enough details to allow Contractor to determine Subcontractor knowledge of scope of Subcontract Works and its methodology and skills for executing the Subcontract Works.

As a minimum, Subcontractor shall provide the information requested under Attachment-1, as part of its Technical Proposal.

Refer Section 3 Contract documents supplied in CD/DVD, which contains Company administration requirements related to the implementation of the Contract. It is Contractor’s intention that Subcontractor’s own internal methods and procedures shall be utilised as far as possible in the administration of the Subcontract provided they accommodate the requirements contained in the Contract.

Subcontractor shall comply with the requirements in the Contract relevant to Subcontract scope of work and shall be responsible for all aspects of the Subcontract Work, for his own organization together with all tier subcontractors.

A. Subcontract Works Execution Method Statements
In particular, Subcontract Works Execution method statements shall include, but shall not be limited to the following:-

a) Proposed Execution Plan with sequences for carrying out the Subcontract Works including appropriate drawings and sketches.

b) Proposed Bar chart schedule for Subcontract works

c) Subcontractor’s proposed material control methods.

d) Outline details of proposed manning including a time-scaled histogram broke down into disciplines and man-hours, showing the normal daily and weekly working hours of the place of Works.

e) Elements of the Subcontract Works, if any, Subcontractor proposes to subcontract.
f) Proposed list of tier subcontractors giving the details of their scope or works, address, and details of previous experience to a similar category to a similar work site.

g) Subcontractor shall include a section on Local content development to be submitted with their Bid which shall include the following local content figures related to the Subcontract:

- Cost of National Personnel planned to be directly engaged by Subcontractor, against the total Subcontract Value _____(%).

- Estimate of cost of National Personnel planned to be indirectly engaged by Subcontractor, against the total Subcontract Value _____(%).

- Cost of National Goods/Materials planned to be purchased for the purpose of Subcontract execution against the total Subcontract Value _____(%).

- Cost of National Services/Works planned to be purchased for the purpose of Subcontract execution against the total Subcontract Value _____(%).

- Statutory Payments To The Republic Of Iraq against the total Subcontract Value ______(%);

- Total Percentage of Local Content out of total Subcontract Value, summing up the payments described in clauses above, ______(%),

- Number of National Personnel to be engaged by Subcontractor and percentage of National Personnel against the total Subcontract personnel to be engaged.

h) Subcontractor shall provide a local content development plan which shall contain the following information where applicable to the Scope of Work:

- The percentage of equity in Subcontractor held directly or indirectly by citizens of the Republic of Iraq and/or by a governmental body of the Republic of Iraq or any other national or local body, agency or subdivision thereof. This information shall be supported by documentary evidence.

- The information detailed above for other legal entities engaged by Subcontractor for the execution of a significant part of the Scope of Work in the form of partnership, joint venture, or consortium.
- The percentage of implementation of the Scope of Work for the Subcontract duration per year and percentage of Local Content accordingly.

- The forecast for employment and mobilization of National Personnel for the whole duration of the Subcontract. The Subcontractor shall also advise which ratios of National Personnel have been achieved by the Subcontractor in other similar projects in similar locations/physical conditions, and illustrate with personnel statistics from such past projects.

- The detailed program for the training of National Personnel including the following information: qualification, category, and level of employees, training description, information about qualification certification. The Subcontractor shall provide specific information as to what training will be provided to National Personnel as part of the Subcontract (list of courses, type of qualifications/certificates issued, and number of man-courses proposed).

- Information on technology and knowledge transfer plans (if/when applicable).

- Information on plans to implement Local Content development programs, planned investments and development of business in the Republic of Iraq to support its operations under the Subcontract (if applicable). The Subcontractor shall describe specifically any plan which the Subcontractor will undertake, as part of the Subcontract if awarded, to contribute to the aforementioned programs, investments and development of business in the Republic of Iraq, in the execution of this scope of work. As a minimum, the plan should substantiate specifically how the Local Content figures detailed as stated herein, will be achieved.

- Stakeholders management system and stakeholders management plan

- Risk management plan showing inclusion of social risks

- Typical Community Management & Development Plan
B. Organization Chart
Subcontractor shall attach herewith a properly designated organisation chart for executing the Subcontract Works with the numbers and titles of Personnel.

C. List of proposed Key Personnel and respective CVs
Subcontractor must submit with the Tender, a list and CVs of proposed Key Personnel for executing the Subcontract Works.
Key personnel include individuals assigned to management/supervisory positions and other specialists. Key personnel shall be on a full time basis. To maintain continuity, Subcontractor shall avoid replacing key personnel.
C.V.s of Key Personnel (Project Manager, Engineers, Supervisors, etc) shall include the following details:-

a) Name, age, nationality and marital status.
b) Education.
c) Brief details of experience – a chronological description of project completed with dates, client names, costs and specific duties/involvement.
d) Copies of Certificates of proficiency, if any.

D. List of proposed Equipment

Subcontractor shall include the details of all Equipment and Plant which he proposes to use for the execution of the Subcontract Works.
The details of the proposed Equipment shall include the description of Equipment, capacity, year of manufacture and the number of units proposed for execution of the Subcontract Works.

E. Pre-qualification Submittal
Bidder shall provide following minimum prequalification information:
4.1 Financial performance for last 5 years.

4.2 Company registration and commercial licensing etc details.

4.3 Ownership and corporate structure

4.4 Experience details of similar onshore oil/gas projects for last five years.

4.5 HSE policy, overview of HSE Management system, and performance (details of LTI and fatalities on all projects for last five years).

4.6 Overview of Construction Management and Quality Control systems.

4.7 Resource availability and qualification.

4.8 Equipment availability.

4.9 Please provide information on relations with local subcontractors as Following:-
   - Experience and relation with companies providing local transportation, storage, customs processing and other services in Iraq
   - Evidence of Bidder’s registration in Iraq
   - Contracts/letter of intentions with local subcontractors

4.10 Information about subcontractors/ manufacturers engaged to implement the contract:-

<table>
<thead>
<tr>
<th>№</th>
<th>Part of work</th>
<th>Subcontractor (name and address)</th>
<th>Experience of performing similar work</th>
</tr>
</thead>
<tbody>
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<td>3</td>
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</tbody>
</table>
4.11 Information about the documents of Subcontractors/manufacturers that give right to conduct operations in the given field of activity (licenses, certificates or other documents):

<table>
<thead>
<tr>
<th>№</th>
<th>Document title</th>
<th>Document No.</th>
<th>Application</th>
<th>Date of issue</th>
<th>Issued by</th>
<th>Valid till</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>(etc.)</td>
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</tbody>
</table>

4.12 Information about the companies to which the Operator may apply with the request to obtain recommendations about the Contractor and Subcontractors:

<table>
<thead>
<tr>
<th>№</th>
<th>Company name</th>
<th>Contact person’s full name</th>
<th>address</th>
<th>Phone, fax number</th>
<th>e-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<tr>
<td>2</td>
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</tbody>
</table>
Note:-
The information provided in this Section shall not modify, delete, supercede or overrule the requirements stipulated in other Sections of the Subcontract. Such provision of information shall not release the Subcontractor from providing such information as the Contractor may require, neither shall in any way relieve Subcontractor of any of his responsibilities and obligations to fulfill, carry out, construct, complete and maintain the Subcontract Works in accordance with the Subcontract.

As a part of technical proposal, Subcontractor has to provide all the information/documents pertaining to Resources viz., But not limited to: Bidder’s work plan narrative, Project and Corporate Organization Charts, Company Relationships, Proposed Work Schedule, Miscellaneous Technical Submittals, Construction Equipment, Resources etc.
ATTACHMENT 1
As minimum, Subcontractor shall submit following information as part of its technical submission:

a. GENERAL
1. A list/portion of Subcontract Work to be done by Subcontractor directly
2. A list/portion of Subcontract Work to be done by Subcontractor through its tier subcontractor, which shall include;
   - Name of the proposed tier subcontractor(s)
   - Tier subcontractor’s contact details
   - Tier subcontractor’s relevant experience, previous work carried out etc
   - Tier subcontractor’s previous work experience with COMPANY etc
   - 
3. Details of previous work carried out by Subcontractor in IRAQ
4. Details of Subcontractor’s ongoing jobs/current workload
5. Financial reports for the last 5 years
6. Booked and/or anticipated Work Load for Years 2010-2014
7. Proposed Interface Co-ordination Plan with different Statutory Authorities and/or Authorities including obtaining regulatory Documents & Files related to Subcontract Works
8. Interface Co-ordination with Other Subcontractors in the Project

b. MATERIAL CONTROL STRATEGY
1. Goods inward inspection
2. Control of material receipt, issue and return of surplus
3. Stock control- stock valuation
4. Pipe storage, preparation of pipe temporary stockpiling area etc
c. CONSTRUCTION

Detailed construction plan, showing the following as a minimum:

1. Location/layout, Area (in Sq.M) required for camp and lay down area of Subcontractor’s proposed accommodation camps/site offices, material storage etc.

2. Consumption of water (in Litres) for construction and testing purposes.

3. Consumption of water (in Litres) for domestic purpose.

4. Subcontractor's proposed construction schedule in line with Level 1 Schedule under Section 6 of the Subcontract ITB.

Note: From the above, Subcontractor shall advise the percentage of construction plant & equipment currently available with them for the Subcontract to meet the construction schedule as per Level-1 schedule under Section 6 including proposed plan for mobilisation of balance construction plant & equipment, for execution of Subcontract.

d. ORGANISATION AND RESOURCES

1. Manpower Resources
   a) Bar charts and histogram to define project manning for Subcontract Works, clearly indicating the categories of manpower proposed for the Subcontract.

   b) Manpower Transportation & logistics Plan

Note: From the above, Subcontractor shall advise the percentage of manpower currently available with them for the Subcontract to meet the construction schedule as per Level-1 schedule under Section 6 including proposed plan for mobilisation of balance resources, for execution of Subcontract.
2. Organisation
The functional organisation and the organisation structure of the Subcontractor’s
Construction Management Team defined by using charts which clearly indicate
lines of communication and reporting relationships between site management with
its corporate office.
In the above phases, HSE, Planning & Scheduling and Quality Assurance
Organisations, Tier subcontractors and structures shall be detailed and submitted.

3. Cvs of key Personnel
Subcontractor shall submit the CV of its key personnel proposed for the project for
executing Subcontract works.

e. HEALTH, SAFETY & ENVIRONMENT
Subcontractor to submit/provide:

1. A copy of Subcontractor’s company HSE policy and documentation on HSE
   organisation. Also, include the name and title of the most senior person in your
   organisation responsible for coordinating HSE matters and reporting to Board of Directors.

2. List of any current accreditations, Safety Awards won etc.

3. HSE performance data on an annual basis for the last 5 years. Complete the
   following table, providing outlines for each input.
<table>
<thead>
<tr>
<th>Description of Data</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
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</thead>
<tbody>
<tr>
<td>Man-hours worked</td>
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<td>Man-hours worked tier subcontractors</td>
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<tr>
<td>Number of Fatalities</td>
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<td>Number of Lost Time Accidents tier subcontractors</td>
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<tr>
<td>Number of Recordable Injuries</td>
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<tr>
<td>Number of Medical Treatment Injuries (MTI)</td>
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<tr>
<td>Number of Medical Treatment Injuries (MTI) tier subcontractors</td>
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<tr>
<td>Lost Time Incident Frequency rate (LTIFR)</td>
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<tr>
<td>Recordable Injury Frequency Rate (RIFR)</td>
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<tr>
<td>Medical Treatment Frequency rate (MFTR)</td>
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<tr>
<td>No. of Accidental (unplanned spills)</td>
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<tr>
<td>No. of External HSE Awards</td>
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<tr>
<td>No. of HSE Prosecution and Fines</td>
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</tbody>
</table>
4. To provide details of Subcontractor’s HSE management system, including assessment/selection and control explaining the purpose and use of their own and tier subcontractors HSE records.

5. To detail the manner in which plant, equipment and where appropriate, vehicles involved in the Work and the workplace, are maintained in a safe condition. Subcontractor shall provide a copy of its Maintenance Policy.

6. Subcontractor is to confirm that incident notification, reporting and investigation will comply with documents within the Contract ITT which detail Company’s minimum requirements in respect of health safety and environmental management. Subcontractor to give details of the process used to communicate the findings of an investigation or incident occurring elsewhere, to their employees. Subcontractor to provide samples of such communication.

Subcontractor shall provide an outline description of formal procedures for reporting, recording and investigating incidents and accidents.

7. Recruitment and Training
   a) Subcontractor shall describe how individual competence for all positions is assessed and effectiveness of such a procedure

   b) Subcontractor shall describe its induction process for new recruits, if any.
   c) Subcontractor shall provide details of the training skills that it provides
   d) Subcontractor shall describe the manner in which it identifies all employees’ Safety training requirements.

8. Temporary In Field Road maintenance Plan and Procedures during construction phase.

9. Subcontractor’s HSE plan ‘Dust preventive procedure’.