CORRIGENDUM
Addendum No. 01 dated 23.06.2020

to
TENDER NO. SJG4346P21

1.0 This addendum is issued to upload minutes of Pre-bid meeting held on 17.06.2020. Addendum/ corrigendum related to Pre-bid meeting is being uploaded.

2.0 This has been uploaded only for the information of all the bidders.

sd/-
A. D. SINGH
Manager (C&P)
## Technical queries - SJG4346P21 (Procurement of 2 Phase Separator Vessel)

1. **M/S OSWAL INFRASTRUCTURE LIMITED**

<table>
<thead>
<tr>
<th>Sl. No.</th>
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</tr>
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<tbody>
<tr>
<td>1</td>
<td>Page 11 of 71</td>
<td>5.0 SCOPE OF WORK</td>
<td>Please clarify whether separator is installed under a shed or open in environment.</td>
<td>It will be installed in open environment.</td>
</tr>
<tr>
<td>2</td>
<td>Page 11 of 71</td>
<td>5.0 SCOPE OF WORK</td>
<td>Please confirm the material of separator vessel is SS304L.</td>
<td>Required Separator and its piping must be of SS304L or better metallurgy as mentioned on page 14 of 71 of NIT.</td>
</tr>
<tr>
<td>3</td>
<td>Page 11 of 71</td>
<td>5.0 SCOPE OF WORK</td>
<td>Please provide the water cut ratio for the same.</td>
<td>The vessel must be capable to handle 300 klpd of water as per NIT (page 13 of 71)</td>
</tr>
<tr>
<td>4</td>
<td>Page 20 of 71</td>
<td>3) Miscellaneous Requirements:</td>
<td>In case of Gas Flare: Hook-up point for flare line is not mentioned anywhere in scope of work. Please provide the same and Tie-point details</td>
<td>A 16” flare line already exists within the existing setup. OIL will indicate the Tee point to Hook-Up the flare line of new separator. However all necessary fabrication for the hook-up jobs will be in bidder’s scope.</td>
</tr>
<tr>
<td>5</td>
<td>Page 14 of 71</td>
<td>ii. Technical Requirements:</td>
<td>Please confirm the sizing scenario to be considered for the selection of PSVs. Let us know whether we will consider ‘Fire case’ to do the PSV selection and please note the nozzle size of safety relief valve shall be according to the sizing calculations.</td>
<td>The design is to be done by bidder and must comply the guidelines/codes/standards etc. as mentioned on page 20-22 of 71 of the NIT. Fire case to be considered while designing of vessel.</td>
</tr>
<tr>
<td>6</td>
<td>Page 14 of 71</td>
<td>ii. Technical Requirements:</td>
<td>Tender Document indicates 2 Nos. of PSVs. Let us know whether it is 2 X 50% configuration. Please Confirm</td>
<td>2 nos. of PSV required of 1 X 100% each, which must pop at 1.1 and 1.15 of operating pressure respectively as per statutory guidelines.</td>
</tr>
<tr>
<td>7</td>
<td>Page 16 of 71</td>
<td>ii. Technical Requirements:</td>
<td>Please provide the T points where the separator will be connected</td>
<td>OIL will indicate the Tee point to Hook-Up the new separator with all the allied necessary piping. The necessary fabrication for all the hook-up jobs will be in bidder’s scope.</td>
</tr>
<tr>
<td>8</td>
<td>Page 16 of 71</td>
<td>ii. Technical Requirements:</td>
<td>Please provide the structural design Basis and specification for the Same.</td>
<td>The design is to be done by bidder and must comply the guidelines/ codes/ standards etc. as mentioned on page 20-</td>
</tr>
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</tr>
<tr>
<td>9</td>
<td>Page 17 of 71</td>
<td>ii. Technical Requirements: Please provide the Civil design Basis and specification for the Same.</td>
<td>22 of 71 of the NIT and the same to be approved by OIL. The foundation is to be designed and completed in such a way that it can bear the given load of the vessel in full load capacity.</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>General</td>
<td>Please confirm whether PLC is required for the same or not, otherwise we will terminate all control and signal to skid mounted JB's.</td>
<td>Local controlling and monitoring is required.</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>General</td>
<td>Please provide technical specification for Control valve/SDV/Instruments/Cables Etc.</td>
<td>Control valve &amp; SDV must be in line with the pressure requirements/design of the vessel. However the MOC of valve should be of SS. Bidder has to provide power cable and signal cables along with other accessories for all the allied instruments.</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>General</td>
<td>Please provide Piping Material Specification and Valve Material Specification</td>
<td>Please refer Sl. No. 2 of the query, as above.</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>General</td>
<td>Please provide soil testing Report.</td>
<td>NA, however existing Installation is already functioning on hard stand ground; soil load bearing capacity already mentioned in the NIT. The foundation is to be designed and completed in such a way that it can bear the given load of the vessel in full load capacity.</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>General</td>
<td>Please Provide Painting Specification for the same.</td>
<td>As mentioned in page no. 23 of 71 of NIT.</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Page 17 of 71 and Page 33 of 80</td>
<td>Payment terms mentioned is: 70% payment will be made against supply of materials and balance 30% after satisfactory installation &amp; commissioning at site along with the installation &amp; commissioning charges. We request you to revise the payment term to: 1. Design and Engineering: 5% 2. Procurement: 65% 3. Fabrication /Construction/Erection/Installation: 20% 4. testing and Commissioning: 10% as In this tender, Process packages are main supply item whose value in total procurement is more than 65%.</td>
<td>Not accepted. Bidder must quote as per NIT.</td>
<td></td>
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<tr>
<td>Page</td>
<td>Section</td>
<td>Description</td>
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<tr>
<td>16</td>
<td>8.1</td>
<td>It is mentioned that Indian Bidders are permitted to bid in any currency (including Indian Rupees) and receive amount in that currency. However, currency of bid will not be allowed to be changed after bid opening. Since Indian bidders are allowed to quote in any currency, OIL will not compensate for any exchange rate fluctuation in respect of the purchase finalised under this tender. Please clarify how OIL will calculate the exchange rate.</td>
<td>Clarified. Related clauses already available in BEC criteria of NIT.</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Approved Vendor List</td>
<td>We kindly request you to accept OSWAL make Gate, Globe, Check and Ball Valve valves for subject Tender.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Approved Vendor List</td>
<td>Due to limited vendor, kindly allow us to refer EIL Approved vendors for flanges fittings, Gasket and Fasteners, and also Approved Following vendor: 1. Samson Control Valve 2. V-Automate and Dag for Pressure Switches.</td>
<td>Apart from the mentioned list the following may also be considered: 1. EIL vendor list certified by EIL has to be provided and the same needs to be agreed upon by OIL. 2. However, in case party has supplied such items in past to OIL, party has to submit supporting documents (PO/Invoice/Bill of Lading etc.) along with performance certificate. ADDENDUM SHALL BE ISSUED</td>
<td></td>
</tr>
</tbody>
</table>
2. **M/S OGSP CUTTER PROCESS SOLUTIONS INDIA PVT. LTD.**

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<thead>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Annexure-II</td>
<td></td>
<td>With reference to the above tender, please note Natural Gas composition provided in “Doc_1_Tender_Doc_SJG4346P21.pdf” Annexure-II at page no 62 of 71 is not normalised, i.e. sum of all mol% is &gt;100%.</td>
<td>Please read methane concentration (Sl. No. 6) as 43.1504% instead of 73.1504%. <strong>ADDENDUM SHALL BE ISSUED</strong></td>
</tr>
</tbody>
</table>

3. **M/S INDCON PROJECTS AND EQUIPMENT LTD**

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<tr>
<td>1</td>
<td>11 of 71 &amp; 20 &amp; 21 of 71</td>
<td></td>
<td>As per page no. 11 of 71, under the heading scope of work, sub clause a, b &amp; c, material of construction for separator, flash drum and piping SS 304 L or equivalent. Does it mean complete separator vessel, flash drum, piping within the skid, all valves, instrument wetted parts will be of SS 304 L. The above requirement of SS 304 L is contradictory to material of construction mentioned on page 20 &amp; 21 of 71. As per page 20 &amp; 21 of 71, for separator as well as flash drum material of construction mentioned is carbon steel. Please clarify.</td>
<td>Required Separator and its piping must be of SS304L or better metallurgy as mentioned on page 14 of 71 of NIT. <strong>ADDENDUM SHALL BE ISSUED</strong></td>
</tr>
<tr>
<td>2</td>
<td>24 of 71</td>
<td></td>
<td>Please confirm the delivery time required for supply and installation and commissioning.</td>
<td>The project to be completed within 18 months from date of LOA.</td>
</tr>
</tbody>
</table>
As we understand that new separator and flash drum is to run in parallel to existing separator skid. Can you please provide the P & ID / other details of existing separator in order to have the similarity. P&ID is not available however PFD is attached in Annexure – V of NIT.

4. **M/S S. MARK OIL FIELD ENGINEERING PVT LTD**

<table>
<thead>
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<th>Suggestion by the Bidder</th>
<th>Clarifications by Oil India</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td>ICB Tender</td>
<td>This tender is floated as ICB tender. We also informed that the government of India has implemented the Atmanirbhar Scheme for forthcoming contracts. To our understanding any contract below 200 crores will only be awarded to Indian companies, hence we would like to understand if this tender would be covered by the purview of this Atmanirbhar Scheme.</td>
<td>Clarified. Approval of competent authority shall be obtained as per provisions of the circular.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td>Clause 5</td>
<td>Flash drum to be design according to separate the condensate &amp; water &amp; Gas if produced. However in clause 7 (III) the flash drum design for separate Liquid (Condensate +Water) &amp; gas. Please clarify about the separation philosophy.</td>
<td>Flash drum needs to be designed to Separate condensate, Gas &amp; Water as similar to three phase separator. This design adds the one Control valve, Level Controller, Pressure transmitter &amp; necessary isolation &amp; bypass valves.</td>
<td>The purpose of flash drum is to separate condensate from technical water. However, it must also have provision to separate any entrapped gas. Designing of the same to be done by the bidder accordingly.</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td>Clause 7: Subclause I: Specific Gravity of gas .92</td>
<td>It seems the specific gravity of the gas is not correctly captured, please clarify.</td>
<td>The natural gases specific gravity range is 0.5 to 0.7</td>
<td>Natural Gas produced in our field has Rel. Density in range of 0.90-0.94.</td>
</tr>
<tr>
<td>4.</td>
<td>Clause 7: Subclause I: Technical Requirement: Point V</td>
<td>Bidders have to visit OIL’s field installation at DND with prior intimation to OIL, before submitting their bids to have first-hand knowledge of the existing set-up and finalising the design. However, all expenditure for such field visit by the bidder’s representatives shall be borne by the bidder. Bidder has to submit the design within 30 days from issue of LOA. The design has to be approved by third party as stated below and OIL before fabrication. We understood that OIL will allow successful bidder to visit the site to finalize the design. However, all expenditure for such field visit by the bidder’s representatives shall be borne by the bidder.</td>
<td>SME has designed and supplied the Separators over last 2 decades to many Oil Producing companies. Based on our past experience, for designing this complex separators site visit before the bidding should be mandatory. OIL should allow the site access to finalize the design. The accurate technical offer will be prepared after site visit only. We appreciate that OIL will consider our request.</td>
<td>Site visit will be allowed as per standard practice and necessary approval from the OIL officials (IM and HoD) of the concerned department. However, all expenditure for such field visit by the bidder’s representatives shall be borne by the bidder.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Clause 7: Subclause I: Technical Requirement: Point I (iii)</td>
<td>The Separator shall be equipped with: Liquid outlet line connected with Pneumatic Float type LLC (Make: Fisher) and LCV with P/I converter (to integrate with existing SCADA system) having isolation valves at both ends of the control valve and a bypass arrangement. SME understands that the P/I converter is pressure to electronic signal (4-20 mAmp) by pressure transmitter &amp; used for the monitoring of the pressure only for Gas &amp; oil lines. Kindly confirm Electronic converter which provides 4 -20 mAmp output to communicate with the existing SCADA system.</td>
<td>Kindly confirm Electronic converter which provides 4 -20 mAmp output to communicate with the existing SCADA system.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Clause 7: Subclause I: Technical Requirement: Point m</td>
<td>Mist extractor section should have woven wire mesh pad to remove liquid droplets (down to 10 microns) from gas stream before the gas leaves the vessels. Please clarify about the material of construction of Mist Extractor. Based on Experience the Material of Construction of Mist Extractor should be SS316.</td>
<td>MOC of Mist Extractor to be of SS316 or higher grade to handle highly corrosive gas. ADDENDUM SHALL BE ISSUED</td>
<td>MOC of Mist Extractor to be of SS316 or higher grade to handle highly corrosive gas. ADDENDUM SHALL BE ISSUED</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Clause 7: Subclause III: Working Conditions: Point i Working Conditions for ITEM NO 2 (CONDENSATE FLASH DRUM) 6. Liquid Handling Capacity 300 PD</td>
<td>Liquid Handling capacity shown as 300 PD; please clarify about unit of Handling Capacity in terms of barrel per day (BLPD) or Kilo litre per day (KLPD).</td>
<td>Kindly confirm The vessel must be capable to handle 300 klpd of water as per NIT (page 13 of 71)</td>
<td>Kindly confirm The vessel must be capable to handle 300 klpd of water as per NIT (page 13 of 71)</td>
<td></td>
</tr>
</tbody>
</table>
### Clause 7: Subclause III - Technical Requirement: Point i, m, r, s

1. Due consideration shall be given to thickness of materials towards corrosion allowance as per relevant code and the bidder should specify the same in their Technical Bids.
2. Condensate Flash Drum should have inspection hole of suitable size complete with door and davit (ANSI-600 class).
3. All flanges shall be as per ASME-B16.5 and rating shall be of ANSI-600 Class, RTJ type.
4. All isolation and bypass valves shall be either Gate Valves of API-600 standard or Ball Valves of API-6D standard. All valves must be of full bore size. Bidders must submit specifications of valves offered by them.

### Flash drum pressure design

Flash drum pressure design drum requirement is of 10.5 Kg/cm². However, the valves & flanges are considered of the 600# RTJ rating. ANSI – 300 Class or above rating Flange will be accepted for Condensate Flash Drum.

### Clause 5: Scope of Work:

2 Phase Separator Vessel for separation of natural gas, water, and condensate: One Skid mounted Horizontal Separator design, fabrication, installation and commissioning of capacity 1.0 MMSCMD. As one horizontal separator of 1.0 MMSCMD capacity as mentioned in Annexure – IV, is already in working condition and has been installed recently. The operating pressure is 35 kg/cm² and operating temperature is 25-60 deg C. Condensate Specific Gravity: 0.67.

### Material of Construction

- Material of construction shown as Clause 5- Scope of work defines SS304L. Whereas in General Guideline for both items it is carbon steel for Piping, Vessel, Valves etc.
- S. Mark recommends SS304L for Natural Gas with carbon Dioxide.

### Required Separator, its piping, along with all the valves & flanges and allied connections

- Required Separator, its piping, along with all the valves & flanges and allied connections must be of SS304L or better metallurgy only as mentioned on page 14 of 71 of NIT.

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**ADDENDUM SHALL BE ISSUED**
| 10. | Clause: General guide Lines for Both items: 
1) Material of construction & standards 
I) Spot Radiographic test to be done as per per ASME see VIII part-I. 
Clause- 2: Codes, inspection, Testing & 
quality Control 
The vessel shall be subjected to 100% 
radiography and stress relieving as per code requirement. Documentary evidence 
in support of radiographic inspection to be 
furnished to OIL, duly witness and 
authenticated by the third party inspection 
agency. | Spot radiographic test to be done as per ASME Sec VIII Div. Part-I 
but in Clause 2 (Codes, inspection, Testing & quality 
Control) Point C 100% radiography is required 
Please clarify about the extent of radiography. | 100 % Radiography is 
required as per Clause 2 (b) c 
under General guidelines for 
Both items, mentioned on page 
21 and 22 of the NIT. 

**ADDENDUM SHALL BE ISSUED** |

| 11. | Clause: General guide Lines for Both items: 
Clause 2: Codes, Inspection, Testing & 
quality Control-Point B | Bidder understanding is that the 
Hiring of Third Party Inspectors 
for inspection of raw materials & 
vessel inspection is scope of 
bidder | TPI should be carried out by 
OIL’s approved inspection 
agencies only (As mentioned 
in the NIT), for all the items 
supplied, which will 
completely be in bidder’s 
scope as mentioned in the 
NIT. 

Already mentioned on page 6 
of 71 of the NIT. It may be 
noted that existing Installation 
is already functioning on hard 
stand ground. 
The foundation is to be 
designed and completed in 
such a way that it can bear the 
given load of the vessel in full 
load capacity. |

| 12. | Clause 7: Subclause II, III: Technical 
Requirement: Point aa 
aa) Civil foundation and footings has to be 
designed based on soil characteristics | Civil foundation and footings can 
be designed based on soil 
characteristic. 
Request to provide the SBC (Soil 
Bearing Capacity) Report. | We suggest to add the Soil 
Bearing Report in tender 
document |

| 12. | Annexure II: Gas Composition | The mole percentage total of all 
gases Exceeds the 100%. Request 
to check for the mole percentage 
of the gas which may increase the 
specific gravity to 0.92 
C6+: 0.073% | The Mole percentage of the 
gas should not be more than 
100% 

Please read methane 
concentration (sl. No. 6) as 
43.1504% instead of 
73.1504%. 

**ADDENDUM SHALL BE ISSUED** |
<table>
<thead>
<tr>
<th><strong>Clause 7: Subclause II (ii): Technical Requirement: Point bb bb) A detailed HAZOP study has to be carried out and details of the same needs to be furnished.</strong></th>
</tr>
</thead>
</table>
| **Propane:** 0.21253 %  
**1-butane:** 0.03575%  
**N-Butane:** 0.05459%  
**1-pentane:** 0.02322%  
**N-Pentane:** 0.02036%  
**Nitrogen:** 30.7759%  
**Methane:** 73.1504%  
**CO2:** 24.7036%  
**Ethane:** 0.94941%  
**Total:** 129.99876%  |
| **Clause 13:** |
| **A.**  
Clause: General guide Lines for Both items: Clause 5  
c) Forged Flanges:  
M/s. Anandmayee Forging Pvt. Ltd.  
M/s. Parveen Industries  
M/s. JVS Engineers  
M/s. L’acier Industries  
The selective vendors limit the competition as we experience comparatively higher prices than our suppliers, and sometimes it fails to achieve the desired quality of the final product. The Guarantee part is the supplier’s responsibility, so we request OIL to remove the specific suppliers or to add our listed vendors. We assure you that we will meet or exceeds the desired quality of the final product with our reputed vendors.  
S. Mark has manufactured and supplied more than 20 separators during last decade. With our vast experience we suggest OIL to add the below suppliers as well.  
c) Forged Flanges:  
Request to add  
1) Utsah Engineering Pvt. Ltd.  
2) Britex Engineering Works  
3) Fivebros Forgings Pvt. Ltd.  
Apart from the mentioned list the following may also be considered:  
1. EIL vendor list certified by EIL has to be provided and the same needs to be agreed upon by OIL.  
2. However, in case party has supplied such items in past to OIL, party has to submit supporting documents (PO/Invoice/Bill of Lading etc.) along with performance certificate.  
**ADDENDUM SHALL BE ISSUED** |
| **B.**  
Clause: General guide Lines for Both items: Clause 5  
j) Valves Control (Critical/Non-critical):  
M/s. ABB Control Valves Introl India Ltd.  
M/s. Continental Valves Ltd.  
M/s. Fisher Xomox (I) Ltd.  
M/s. Fouress Engineering  
j) Valves Control (Critical/Non-critical):  
Request to add  
1) Norriseal WellMark  
Apart from the mentioned list the following may also be considered:  
1. EIL vendor list certified by EIL has to be provided
| 14.C. | M/s. Instrumentation Limited  
M/s. MIL Controls Ltd.  
M/s. R.K. Control Instruments Pvt. Ltd.  
M/s. Valtek India Ltd.  
and the same needs to be agreed upon by OIL.  
2. However, in case party has supplied such items in past to OIL, party has to submit supporting documents (PO/Invoice/Bill of Lading etc.) along with performance certificate.  
ADDENDUM SHALL BE ISSUED |
| 14.D. | Clause: General guidelines for both items: Clause 5  
k) Fasteners (Stud/Nuts/Washers/Bolts etc.):  
M/s. Perfect Marketings (P) Ltd.  
M/s. Fix Fit Fasteners Mfg. Pvt. Ltd.  
M/s. Pacific Forging & Fasteners Pvt. Ltd.  
M/s. Pioneer Nuts & Bolts Pvt. Ltd.  
M/s. Precision Auto Engineers  
M/s. Precision Engineering Industries  
M/s. PTD Fasteners Pvt. Ltd.  
M/s. Sundaram Fasteners Limited  
Apart from the mentioned list the following may also be considered:  
1. EIL vendor list certified by EIL has to be provided and the same needs to be agreed upon by OIL.  
2. However, in case party has supplied such items in past to OIL, party has to submit supporting documents (PO/Invoice/Bill of Lading etc.) along with performance certificate.  
ADDENDUM SHALL BE ISSUED |
| 14.D. | Clause: General guidelines for both items: Clause 5  
l) Internals for Separators (Vortex Breaker/Demister Pad etc.):  
M/s. Kvaerner Process System  
M/s. Koch Glitsch  
M/s. Natco  
M/s. CDS Engineering  
We urge OIL to add the Indian vendors as well.  
l) Internals for Separators (Vortex Breaker/Demister Pad etc.):  
Request to add below Indian Makes:  
1) Varun Engineering, Ankleshwar  
Apart from the mentioned list the following may also be considered:  
1. EIL vendor list certified by EIL has to be provided and the same needs to be agreed upon by OIL.  
ADDENDUM SHALL BE ISSUED |
| 15 | BEC/BRC Clause 1.2 The Bidder must have experience of successfully executing similar order including successful installation & commissioning for similar or higher size of separator in preceding 5 (five) years to be reckoned from the original stipulated bid closing date of the tender. Declaration/confirmation that the Separators shall be manufactured as per relevant codes and the bidder or its partner in case of JV or Consortium of Companies is authorized to carry out such jobs. | Kindly confirm that “similar or higher size of separator” implies that the separator supplied in the past by the manufacturer has larger diameter and length than that to be supplied in this tender. | 2. However, in case party has supplied such items in past to OIL, party has to submit supporting documents (PO/Invoice/Bill of Lading etc.) along with performance certificate. ADDENDUM SHALL BE ISSUED |