



## KPD-TAY COMPRESSION PROJECT

Tender Enquiry No.: PROC/FC/PROJ/KPD-TAY/COMP/5313/2022



### PRE-BID CLARIFICATION # 28

One of the bidder has asked following queries, OGDCL/ENAR's response is as follows:

Sr. No.	Tender Documents Reference	Bidder's Query	OGDCL/ENAR's Response
1	0258-DS-1010-0 TAY-3 GGS Vent Stack (X-5601)	Material for vent stack specified in datasheet is carbon steel. However, material of piping connected to the vent stack and Vent K.O Drum specified is LTCS (low temperature carbon steel). Please clarify which material should bidder use for vent stack. It is recommended that LTCS material is to be utilized as temperature below -30°F are being calculated in vent headers of vent KO Drum & vent stack based upon minimum process gas temperature of 36°F at compressor inlet.	Refer Tender Document/Vol-IIA/P&ID # 0258-PB-2100/Note-26, it is already in the scope of EPCC, however, consideration of material on the basis cold blowdown temperature, shall be reviewed and finalized at detailed Engineering Stage after detailed calculation by EPCC.
2	0258-DS-1011-0 Thora GGS Vent Stack (X-5801)	Material for vent stack specified in datasheet is carbon steel. However, material of piping connected to the vent stack and Vent K.O Drum specified is LTCS (low temperature carbon steel). Please clarify which material should bidder use for vent stack. It is recommended that LTCS material is to be utilized as temperature below -30°F are being calculated in vent headers of vent KO Drum & vent stack based upon minimum process gas temperature of 36°F at compressor inlet.	Refer Tender Document/Vol-IIA/P&ID # 0258-PB-2100/Note-26, it is already in the scope of EPCC, however, consideration of material on the basis cold blowdown temperature, shall be reviewed and finalized at detailed Engineering Stage after detailed calculation by EPCC.
3	0258-LS-1000-0 (Line List)	Design pressure for compressor suction line (Line No. 8"-56-PG-003-E2) upto double block valves of compression package at TAY-3 GGS specified in line list is 2025 psig. However, maximum operating pressure specified in the compressor datasheet 0258-DS-1001-0 (DS of Nodal Compressor at TAY-3 GGS) is 935 psig. Therefore, bidder understands that design pressure for TAY-3 GGS compressor suction scrubber and piping upto inlet of compression should be considered as 1040 psig (maximum operating 935 psig+10%) OR 600# max. limit of 1350 psig @ 200°F should be considered and spec break E2 (900#) to D2 (600#) will be provided at package inlet. Please clarify.	Bidder to comply the tender document. However, this point will be discussed at the stage of detail engineering.
4	0258-LS-1000-0 (Line List)	Design pressure for compressor suction line (Line No. 6"-57-PG-002-E2) upto double block valves of compression package at TAY GPP specified in line list is 2025 psig. However, maximum operating pressure specified in the compressor datasheet 0258-DS-1002-0 (DS of Nodal Compressor at TAY GPP) is 935 psig. Therefore, bidder understands that design pressure for TAY GPP compressor suction scrubber and piping upto inlet of compression should be considered as 1040 psig (maximum operating 935 psig+10%) OR 600# max. limit of 1350 psig @ 200°F should be considered and spec break E2 (900#) to D2 (600#) will be provided at package inlet. Please clarify.	Bidder to comply the tender document. However, this point will be discussed at the stage of detail engineering.
5	0258-LS-1000-0 (Line List)	Design pressure for compressor suction line (Line No. 6"-58-PG-019-E2) upto double block valves of compression package at Thora-3 GGS specified in line list is 2025 psig. However, maximum operating pressure specified in the compressor datasheet 0258-DS-1000-0 (DS of Nodal Compressor at Thora-3 GGS) is 800 psig. Therefore, bidder understands that design pressure for TAY GPP compressor suction scrubber and piping upto inlet of compression should be considered as 890 psig (maximum operating 800 psig+10%) OR 600# max. limit of 1350 psig @ 200°F should be considered and spec break E2 (900#) to D2 (600#) will be provided at package inlet. Please clarify.	Bidder to comply the tender document. However, this point will be discussed at the stage of detail engineering.



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6	P&ID Nodal Compression Packages (K-5801) at Thora Deep-3 GGS 0258-PB-2108	There is no excess pressure relief valve (PCV) to flare at gas gathering header (LP manifold) at Thora Deep-3 GGS as compared to P&ID for Nodal Compression Packages (K-5601A/B/C) at TAY-3 GGS, which shows PCV-5604 at compressor suction header on TAY-3 GGS manifold. Bidder understands that PCV to flare is not required to be provided at Thora Deep-3 GGS.	Minimum requirements are mentioned in the Tender Documents. Bidder to design the compression facilities in such a way that the safe, continuous and trouble free operation shall be carried out for all the cases after firmed detailed engineering and safety studies.
7	0258-DS-1006-0 (New LP K-Finger Slugcatcher(SC-4601))	Slug handling capacity is mentioned as 36m3 in datasheet, please advise 10% design margin is also required to be provided i.e. $36 \times 1.1 = 39.6$ m3. Please clarify whether 36 m3 and 39.6 m3 should be considered as design slug handling capacity for slug catcher.	Design slug handling capacity for New LP K-Finger Slugcatcher(SC-4601) shall remain same as stipulated in the referred datasheet i.e. $36\text{m}^3$ .
8	Scope of Work Clause 5.8	It is specified in Tender Scope of Work that "Complete Package and Off-Package instruments shall be supplied and installed by EPCC Contractor. EPCC Contractor shall consider 2oo2 (2 out of 2) voting system and configuration for all Instruments (transmitters & switches) serving process shutdown in compressor package." However, 2oo2 voting system is not shown in the FEED P&IDs for Nodal compression & FEC packages. Please clarify that FEED P&IDs instrumentation will be sufficient to be considered in bidder supplied scope OR above clause 5.8 of Tender Scope of Work is required to be followed. Further, if Tender scope of work clause 5.8 is required to be followed, then also advise that only pressure & level instruments in process gas circuit are required to be considered as 2oo2.	Sec 5.8 of tender scope of work shall be followed / endorsed by EPCC. It should be noted that FEED P&ID's are for inductive purpose only. Packager / OEM to design and develop detail P&ID's during detailed engineering stage.  Further, basic technical details / requirements are already mentioned in tender documents. However, this shall further be reviewed and finalize during detailed engineering stage.
9	0258-DS-1000-0 (DS of Nodal Compressor at Thora Deep-3 GGS), 0258-DS-1001-0 (DS of Nodal Compressor at TAY-3 GGS) and 0258-DS-1002-0 (DS of Nodal Compressor at TAY GPP) Page 6 for 22, Point 6.2.6	It is specified in all nodal compressor datasheets that Discharge Scrubber should be Furnished. However, final stage discharge scrubber is also not mentioned on FEED P&IDs. Bidder would like to highlight that final stage discharge scrubber is not required for all nodal compressors as the discharge fluids (including liquids) are to routed to flow lines and finally to respective slug catchers. Please confirm.	Confirmed.
10	0258-DS-1003-0 (DS of K-FEC at GPP) Page 6 for 22, Point 6.2.6	It is specified in K-FEC compressor datasheet that Discharge Scrubber should be Furnished. However, final stage discharge scrubber is also not mentioned on FEED P&ID. Bidder would like to highlight that final stage discharge scrubber is not required for K-FEC compressor as the discharge fluids (including liquids) are to routed to K&T Trim Coolers and finally K&T production separators. Please confirm.	Confirmed.



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Sr. No.	Tender Documents Reference	Bidder's Query	OGDCL/ENAR's Response
11	0258-DS-1003-0 (DS of K-FEC at GPP) and 0258-DS-1000-0 (DS of Nodal Compressor at Thora Deep-3 GGS), 0258-DS-1001-0 (DS of Nodal Compressor at TAY-3 GGS) and 0258-DS-1002-0 (DS of Nodal Compressor at TAY GPP)	For K-FEC package at GPP (K- 4601 A/B/C/D/E), it is mentioned under Note-5 and Note-6 on Page-8 of K-FEC package datasheet that heat tracing is required to be provided only on level bridles and level instruments. However, the same is not mentioned on all nodal compression package datasheets. Please advise, heat tracing on all level bridles and level instruments of nodal compression packages should also be included by bidder or not.	Please note that heat tracing on all level bridles & level instruments of either K-FEC or nodal compression packages, is not required.
12	F80-01-PRO-DWG-02-02 Rev 4 (P&ID For Fuel Gas System)	Fuel gas connection from existing plant to K-FEC KPD package and TAY GPP Nodal compressor package is shown on P&ID. Please confirm this fuel gas supply connection is required to be considered for normal operation for K-FEC KPD package and TAY GPP Nodal compressor package and raw gas will be utilized for startup of compressors.	Confirmed.
13	F80-01-PRO-DWG-02-02 Rev 4 (P&ID For Fuel Gas System)	Fuel gas connection from existing plant to K-FEC KPD package and TAY GPP Nodal compressor package is shown on P&ID. Please advise the fuel gas composition for this fuel gas stream as the same is not mentioned in compressor package datasheets.	Please find fuel gas composition in attachment. Furthermore, it is to note that in attached file, Case-1 mentioned is considered when there is no LPG recovery from the gas. This may be considered as the worst case for KPD GPP Fuel gas composition.
14	0258-DS-1000-0 (DS of Nodal Compressor at Thora Deep-3 GGS) and 0258-DS-1001-0 (DS of Nodal Compressor at TAY-3 GGS)	It is only specified in both compressor datasheets that raw gas will be utilized as fuel gas for compressor startup. Bidder understands that raw gas will also be utilized for normal operation as well, please confirm.	Bidder's understanding is correct for only TAY-03 GGS and Thora Deep-03 GGS Nodal Compression.
15	0258-B-1502-1 (PFDs For KPD & TAY Separation Equipment)	Please provide fluid composition of PFD Stream nos. S-18 and S-15 for thermal design verification of K&T Trim Coolers (E-4101 & E-5101) as these are not available in H&MB.	Refer to Annexure-IV, Basis of Design, for wells' compositions. Furthermore, it is to note that bidder shall develop simulation and H&MB of all area under study covering all critical and important relevant properties as already mentioned in SOW.