

GEM Tender No:GEM/2022/B/2135779 FOR SULPHUR ANALYZER

Replies to Pre-Bid Queries

S/N	Document No.	Page	Clause	Queries	CPCL Replies
TECHNICAL QUERIES					
1	ANNEXURE- I SPECIFICATION OF ONLINE SULPHUR ANALYZER	4 of 36	3.2.2 Redundant Fast loop pumps with strainers (Applicable as per process conditions)	We understand that Fast Loop pump shall only provided if there is not sufficient pressure or flow to achove sample flow with stated lag time. If same can be met witout Fast loop pump, these will not be offered. Please confirm if correct understading.	Redundant Fast loop pumps are required for all analysers. Refer corrigendum
2	ANNEXURE- I SPECIFICATION OF ONLINE SULPHUR ANALYZER	9 of 36	4.25 CPCL shall provide the following utilities at one point near each analyzer cabinet. Further conditioning and distribution is in bidder's scope: i. Instrument air ii. Nitrogen iii. 110 V AC UPS iv. 415 V AC Non UPS	1. Please provide the quality details of Instrument Air, Nitrogen. 2. Please confirm that cooling water shall also be provided. Please provide Chloride content & Temperature of cooling water.	1. Traces of moisture will be present in Instrument air. 2. Nitrogen shall be 99% pure when it's provided through cylinders and 98% when provided through pipe. 3. Cooling water shall be provided. Chloride content of cooling water is 1000 ppm, Temperature is 40 degc, pressure is (2.5 to 5.5)Kg/cm2. Refer corrigendum
3	ANNEXURE- I SPECIFICATION OF ONLINE SULPHUR ANALYZER	16 of 36	7.8.3 Two stage moisture removal	We request to advise moisture content in all streams.	Traces of moisture content is present in the DHDT, ISOM and MS dual stream analyser samples. Notable content of moisture is present in DHDS analyser sample. Exact moisture content shall be provided during detailed engineering stage. Hence, bidder need to consider moisture seperators or necessary components for seperation of moisture in DHDS analyser.
4	ANNEXURE- I SPECIFICATION OF ONLINE SULPHUR ANALYZER	19 of 36	7.8.35 The sampling system, inclusive of sample probe if any, transport system and sample conditioning system, etc, shall be designed to deliver a representative samples with a time lag ≤ 45 seconds.	Please advise which one to consider for sample Lag time. We understand that 90 seconds is acceptable, please confirm your acceptance.	Sample lag time of 90 seconds is acceptable. Refer corrigendum
5	Annexure-II: Datasheet of Online Sulphur Analyser	7 of 17	4. Sample transportation time shall be considered as 90 seconds maximum.		
6	ANNEXURE- I SPECIFICATION OF ONLINE SULPHUR ANALYZER	21 of 36	7.8.50 The flow limiting devices shall be sized such that the single worst leak case can be diluted below the lower alarm limit for LEL of flammable gases, below the short term TLV exposure limit of toxic gases, or to maintain the atmospheric oxygen level above 19% oxygen by volume, as applicable to the hazard.	We understand that Cabinet shall not be a walkin type. We belive that such clause are only applicable wherein walkin is possibile like a Shelter.	Noted and accepted

7	ANNEXURE- I SPECIFICATION OF ONLINE SULPHUR ANALYZER	26 of 36	Total Sulphur CRM (two sets of each per analyzer with one year validity) a. 20 ppm b. 10 ppm c. 5.0 ppm d. 1.0 ppm e. 0.0 ppm blank	We request to accept single point span calibration since our sulfur is very linear and does not need 5 points. We have done zero and span only for our previous supplies in CPCL. Zero is done with sample cut off and span is done with a Calibration blend having sulfur near by actual measurement range. Same has been accepted and we believe same can be considered here as well.	Two point (zero and span) calibration is acceptable. For span calibration one CRM is required and for validation one more CRM is required. Hence two CRM are required. Refer corrigendum for details.
8	ANNEXURE- I SPECIFICATION OF ONLINE SULPHUR ANALYZER	26 of 36	7.17.1 iv. The carrier gas cylinders/fuel gas cylinders shall be supplied in dual manifold cylinder configuration.	We shall use utility provided by CPCL(Nitrogen/I.A) for carrier gases and hence cylinder shall not be required. Please provide quality of these utility.	Noted. Nitrogen/I.A shall be provided in cylinder or through pipeline. Bidder to consider dual Manifold for connecting the same. Quality of utilities is mentioned in Reply no.2
9	ANNEXURE- I SPECIFICATION OF ONLINE SULPHUR ANALYZER	24 of 36	All roof and wall sections joints shall be permanently sealed to suit forced ventilation of the analyser cabinet, and so to ensure that air exits the cabinet only at the designated air exit louvers.	Forced ventilation shall not be applicable for Cabinet with Air Conditioners.	Noted and accepted
10	Annexure-II: Datasheet of Online Sulphur Analyser	5 of 17	28. Accuracy: $\pm 1\%$ of Full scale Minimum	Accuracy is not applicable as same depends on Calibration blend accuracy. We instead define Linearity: $\pm 1\%$ of full scale, two sample injections per minute Repeatability: $\pm 1\%$ of full scale, two sample injections per minute Further our Analyzer is online adaptation of " ASTM Method D5453 for liquid phase samples; an adaptation of "Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence" . Our SOLA analyzer has regularly demonstrated excellent agreement with all laboratory total sulfur measurement methods, including D5453	Noted. Refer Corrigendum
11	Annexure-II: Datasheet of Online Sulphur Analyser	6 of 17	32. a. Dual Isolated 4-20mA DC current output for each analyzer.	Please note that 2 nos. 4-20 mA shall be provided only in case of dual stream. For single stream tags only one 4-20 mA shall be provided.	Noted. Refer Corrigendum
12	Annexure-II: Datasheet of Online Sulphur Analyser	9 of 17	3.1 Item no. 10: Datasheet of DHDT Sulphur Analyser	Please advise Final Boiling Point of DHDT Gasoil Product.	IBP: 110-120 degC FBP: 360-370 degC
13	Annexure-II: Datasheet of Online Sulphur Analyser	9 of 17	3.2 Item no. 10: Datasheet of DHDS Sulphur Analyser	Please advise Final Boiling Point of DHDS Gasoil Product.	IBP: 110-120 degC FBP: 360-370 degC
14	Annexure-II: Datasheet of Online Sulphur Analyser	10 of 17	Operating Pressure Kg/cm2g: DFAS 10.7	Please advise the meaning of DFAS	Typo error. Operating pressure is 10.7 Kg/cm2g
15	Annexure-II: Datasheet of Online Sulphur Analyser	11 of 17	Line Size. Rating, Schedule: 2" 150# STD	Line size of Light Naptha from CCR is very small (2" only) to have probe insertion. Hence we shall take sample directly from Nozzle. Please confirm.	Line size is change to 3" 150#. Refer Corrigendum. Bidder to offer as per manufacturer standard meeting the requirement of analyser.
16	Annexure-II: Datasheet of Online Sulphur Analyser	11 of 17	Sample Return [3/4" 150#]: Common sample return for both streams. Hence, Sample recovery tank and redundant recovery pumps shall be same for both the analysers.	We would like to clarify that based on our past experience we have observed that naptha tends to vaporize at recovery pump upstream due to lower pressure and this makes recovery pump to trip as it cannot operate on vapor. Hence we request to check if 1. Existing recovery system handling Light naptha and Hydrotreated Naptha are working 2. Please advise Boiling point of both Light Naptha and Hydrotreated Naptha.	1. Existing recovery pumps are working satisfactorily. 2. Boiling points are: 63 to 85 degC
17	Annexure-II: Datasheet of Online Sulphur Analyser	11 of 17	4. Pressure (Operating/Design): (0.3 to 1.5 kscg)/ 3.5kscg	Please confirm correct pressure for MS streams as in 4. It is 0.3 to 1.5 and in 17. it is 0.5 to 3	Noted. Refer Corrigendum
18	Annexure-II: Datasheet of Online Sulphur Analyser	12 of 17	17. Op. press. (kg/cm2g) : Min Max 0.5 3		

19	Annexure-II: Datasheet of Online Sulphur Analyser	12 of 17	HDR-2 to Anal.: 200	We request to recheck this length since this is low range application and hence distance shall be as low as possible.	Mentioned Distance of 200 mtrs is correct. Bidder to choose tubing accordingly
20	Annexure-II: Datasheet of Online Sulphur Analyser	14 of 17	6.1 Specification of Laptop	Please note that Laptop shall not be required for configuration of analyzer as same can be performed from our Analyzer display screen. Please advise if Laptop is mandatory requirement. If Laptop is mandatory requirement, please confirm that general purpose safe area laptop will be accepted.	Laptop is required incase configuration of the analyser is through the laptop (Refer Annexure-II clause no.2 Note 2). Specification of laptop is mentioned in Annexure-II clause no. 6.1
21	Annexure-II: Datasheet of Online Sulphur Analyser	9-12 of 17	3. PROCESS DATA Design Pressure Kg/cm2g Design Temperature °C	We understad that design pressure/temperature provided in datasheet are only mechanical design. We shall design our system as per operating pressure and operating Temperatures. Please confirm if correct understanding.	Bidder to design the sample handling system as per operating condition. It shall withstand design conditions without damaging the sample conditioning system and analyser.
22			General	We typically used Pressure switch for Auto operation of Fast Loop sample Pumps, please confirm if any concern in using pressure Switches. If pressure Transmitters are required instead of Switches, kindly confirm.	Pressure transmitters are required as per Tender specification
23	Annexure-II: Datasheet of Online Sulphur Analyser		Clause no. 1.1 Operating principle for online sulphur analysers should be UV or x ray fluorecence	Request you to provide approval for FPD (Flame Photometric Detector) sensor based analyser. The flame photometric detector (FPD) allows sensitive and selective measurements of volatile sulphur and phosphorus compounds. The detection principle is the formation of excited sulphur (S2*) and excited hydrogen phosphorous oxide species (HPO*) in a reducing flame.	Tender requirements to be followed
24	Annexure-II: Datasheet of Online Sulphur Analyser		Clause no. 1.2 The obtained result should meet the requirement of ASTM D-5453 / D-2622 / ISO 20884	- Request you to provide approval for ASTM D7041-04. - This test method covers the determination of total sulfur in liquid hydrocarbons with a final boiling point less than 450°C by gas chromatography using a flame photometric detector.	Tender requirements to be followed
25	Annexure-II: Datasheet of Online Sulphur Analyser		Clause no. 1.3 The obtained result should meet the requirement of ASTM D-5453 / D-2622 / ISO 20884		
26	Annexure-II: Datasheet of Online Sulphur Analyser		Clause no. 9 Probe for sampling	Please provide the probe insertion length.	Bidder to select the probe length based on the diameter of pipe to obtain representative sample
27	Annexure-II: Datasheet of Online Sulphur Analyser		Clause no. 18 Location of Sample handling System : Mounted on SS304 plate, inside an IP54 Stainless steel enclosure.	The MOC of the enclosure shall be SS304. Please confirm.	Noted and accepted
28	Annexure-II: Datasheet of Online Sulphur Analyser		Clause no. 18 Interconnection tubing/fittings between take-off points and sample handling system : Required to be supplied by vendor	Please provide the distance of the field sample tubing.	Distances are provided in clause no.4 of Annexure-II
COMMERCIAL QUERIES					
1	Additional Terms & Conditions	4 of 7	10. Delivery Period Within 16 weeks(112 days) from date of GEM order	We request you to accept 20 weeks from Drawing approval as currently we are facing delays due to international challenges.	Noted. Delivery shall be 20 Weeks from the date of Purchase Order. Refer Corrigendum.

2	Additional Terms & Conditions	4 of 7	<p>9. Payment Terms 85% of the supply value within 10 days of receipt of materials at CPCL site subject to acceptance. 15% of the supply value within 10 days of completion of Site Work activities (Installation, Commissioning, SAT etc.,) and handing over of the complete system at CPCL site, duly certified by CPCL Engineer in-charge. In case site is not ready for site works, 10% of the supply value shall be released within 90 days from receipt of materials at site against furnishing an equivalent bank guarantee valid for one year period. This is apart from the submission of 3% PBG.</p>	<p>We request to accept 90% of the supply value within 10 days of receipt of materials at CPCL site subject to acceptance. 10% of the supply value within 10 days of completion of Site Work activities (Installation, Commissioning, SAT etc.,) and handing over of the complete system at CPCL site, duly certified by CPCL Engineer in-charge. In case site is not ready for site works, 10% of the supply value shall be released within 90 days from receipt of materials at site against furnishing an equivalent bank guarantee valid for one year period. This is apart from the submission of 3% PBG.</p>	Tender requirements to be followed
3	Additional Terms & Conditions	5 of 7	<p>11. Liquidated Damages: (As per GeM) If the Seller fails to deliver any or all of the Goods/Services within the original/re-fixed delivery period(s) specified in the contract, the Buyer will be entitled to deduct/recover the Liquidated Damages for the delay, unless covered under Force Majeure conditions aforesaid, @ 03% per week or part of the week of delayed period as pre-estimated damages not exceeding 10% of the contract value without any controversy/dispute of any sort whatsoever. In case, Service Level Agreement (SLA) is applicable the same shall be applicable for the Contract.</p>	<p>We request to accept " @ 0.5% per week or part of the week of delayed period as pre-estimated damages not exceeding 5% of the contract value without any controversy/dispute of any sort whatsoever. "</p>	Tender requirements to be followed

GEM Tender No:GEM/2022/B/2135779- “Procurement, Installation, Commissioning and Post Warranty Comprehensive Annual Maintenance Contract (PWCAMC) of Sulphur Analyzers”– Technical Corrigendum

The following scope/specification, terms and conditions stands modified to the extent indicated under the column “Additions/Deletions/ Modifications”. All other scope/specifications, terms and conditions of the bidding document shall remain unaltered.

S/N	Tender clause No.	Page No.	Subject	Additions/Deletions/ Modifications	Bidder's Compliance
1.	Annexure-I/3.2.2	4	Redundant Fast Loop Pumps with strainers (Applicable as per process condition)	Mod.: Redundant Fast Loop Pumps with strainers is mandatory for all analysers.	
2.	Annexure-I/4.25	9	Cooling water	Add: Temperature: 40 degC Pressure: (2.2 - 5.5) Kg/cm2g Chloride content: 1000 ppm	
3.	Annexure-I/4/12	10	Quarterly visit during warranty and PWCAMC as per warranty, PWCAMC scope of work	Mod.: Monthly visit during warranty and PWCAMC as per warranty, PWCAMC scope of work.	
4.	Annexure-I/7.8.35	19	Sample lag time ≤ 45 seconds	Mod.: Sample lag time ≤ 90 seconds	
5.	Annexure-I/7.17.1/V	26	Total Sulphur CRM (two sets of each per analyzer with one year validity) a. 20 ppm b. 10 ppm c. 5.0 ppm d. 1.0 ppm e. 0.0 ppm blank	Mod.: Bidder to supply (2 sets of each CRM per analyser with minimum one-year expiry period) and Re-fill during warranty and PWCAMC. For Analysers of Range 0 to 20 Wt ppm required CRM's are: a. 16 ppm b. 10 ppm For Analyser of Range 0 to 2 Wt ppm required CRM's are: a. 1.6 ppm b. 1 ppm	
6.	Annexure-II/2.28	5	Accuracy: ±1% of Full scale Minimum	Mod.: Linearity: ±1% of Full scale minimum	
7.	Annexure-II/2.32.a	6	Dual Isolated 4-20 mA current output	Mod: Single isolated 4-20 mA output for single stream analyser and dual isolated 4-20 mA output for dual stream analyser	
8.	Annexure-II/3.3/14	11	Line No.	Mod: 3” Line	

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S/N	Tender clause No.	Page No.	Subject	Additions/Deletions/ Modifications	Bidder’s Compliance
9.	Annexure-II/3.3/15	11	Line Size, Rating, Schedule	Mod: 3” 150# STD	
10.	Annexure-II/3.4/17	12	Op. press. (kg/cm2g): 0.5 to 3	Mod.: Op. press. (kg/cm2g): (0.3 to 1.5)	
11.	Annexure-I/12	32	Warranty, PWCAMC Scope of Work	Add: The detailed scope of work during warranty period is same as PWCAMC scope (clause no.12 of Annexure-I).	
12.	Bidder to Duly fill, sign and stamp on each page of replies to Technical specification, pre-bid queries and Technical corrigendum.				

GEM Tender No:GEM/2022/B/2135779- “Procurement, Installation, Commissioning and Post Warranty Comprehensive Annual Maintenance Contract (PWCAMC) of Sulphur Analyzers”– Commercial Corrigendum

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S/N	Tender clause No.	Page No.	Subject	Additions/Deletions/ Modifications	Bidder’s Compliance
1.	Additional Terms and Conditions (ATC)	4 of 7	Delivery Period	Within 20 Weeks from the date of GeM PO.	