 21/07/2023  
 Sushmita  
 P. P. GAS LIMITED  
 KANPUR

**REPLY TO BIDDER'S QUERIES**

**Bid Document for the Procurement of 5000 SCMH, Twin Stream Canopied DRS with USM for Kanpur, Bareilly and Jhansi**

**Bid Document No.: CUGL/C&P/TEN2324/39 dated 12.07.2023 (E-Tender No. 55336)**

Sr. No.	Tender Clause No. / Annexures	Page No.	Subject	Bidder's Queries/ Observation/Comments	CUGL Response
1	A) TECHNICAL SPECIFICATION, SCOPE OF SUPPLY		USM Meter or RPD Meter +C12:C23C12:C22D14C12:C27C12:C23C12:C24	Kindly confirm the requirement meter whether it is USM Meter Or RPD meter. Please confirm the same.	USM Meter required.
2	TECHNICAL SPECIFICATION, SCOPE OF SUPPLY		CRV	We understand that Creep Relief Valve : 1 no. each at regulator downstream will be required. Please confirm.	One No. of CRV required at each Regulator Outlet.
3	General		Line Size	Sizing to be done by OEM and have to accommodate in the skid, as per the Process Parameters: 1. I/L Pressure - 10 - 26 Bar 2. O/L Pressure - 4 Bar 3. Max. Flow - 5000 SCMH 4. Piping Class: i. I/L to Regulator - 300# ii. Regulator to O/L - 150#	Sizing to be done by OEM and have to accommodate in the skid, as per the Process Parameters: 1. I/L Pressure - 10 - 26 Bar 2. O/L Pressure - 4 Bar 3. Max. Flow - 5000 SCMH 4. Piping Class: i. I/L to Regulator - 300# ii. Regulator to O/L - 150#
4	DRS - Design Condition		e) Minimum size of main line DRS inlet valves/ pipe (Regulator inlet) : 4", 300# f) DRS Inlet flange to filter & to regulator : 300 # g) Regulator out let to DRS out let : 150 # h) Minimum pipe size from regulator & outlet flange to DRS outlet flange : 4"-150#	We understand that line to be calculated as per process parameter or considered provided in the design condition. Please confirm. Please Confirm Line size as per PNGRB Guidelines.	
5	SCHEDULE OF RATES (SOR)		a) Mandatory Spares b) Mandatory spares of 1 Set only shall be required to supply.	A) Please provide the mandatory spares list for DRS system. B) Please confirm Mandatory spares is required for each skid. Please confirm point b.	Refer Scope of Supply, Point No. 18 (n & o) n. Bidder to supply necessary spares for operation and maintenance for one year. o. List of mandatory spares for operation and maintenance to be provided by bidder along with filter element.
6	General		Valve Datasheet	We request to CUGL, please provide the ball valve, Globe & check valve datasheet.	Attached
7	LIST OF VENDORS FOR BOUGHT-OUT ITEMS		Ball Valves	We request to CUGL, kindly accept GM Engg pvt Limited - Rajkot, Petro Valves private limited - Ahmedabad & Hawa Engineers Limited - Hubli for Ball Valve as they are accepted widely across all Natural Gas CGD & by many PMC. Request to accept same for this tender to meet delivery schedule. Please find attached PTR for your references.	For approval of vendors, other than provided list in Tender, would be subject to acceptance of PTR, post placement of PO.
8	LIST OF VENDORS FOR BOUGHT-OUT ITEMS		Globe & Check Valve	We request to CUGL, kindly accept Niton Valves - Mumbai & Micon Valves - Hubli for Globe & Check Valve as they are accepted widely across all Natural Gas CGD & by many PMC. Request to accept same for this tender to meet delivery schedule. Please find attached PTR for your references.	For approval of vendors, other than provided list in Tender, would be subject to acceptance of PTR, post placement of PO.
9	LIST OF VENDORS FOR BOUGHT-OUT ITEMS		Flange and Fittings	We request to CUGL, kindly accept Vivial Forge - Vadodara, Pipefit - Vadodara & NJ Engineers - Vadodara for Flanges & Fitting as they are accepted widely across all Natural Gas CGD & by many PMC. Request to accept same for this tender to meet delivery schedule.	For approval of vendors, other than provided list in Tender, would be subject to acceptance of PTR, post placement of PO.
10	LIST OF VENDORS FOR BOUGHT-OUT ITEMS		Vendor list- Pressure Safety & Creep Relief Valve	Kindly accept Rajshree for pressure & creep relief valve as they are accepted widely across all Natural Gas CGD & by many PMC. Request to accept same for this tender to meet delivery schedule. We can submit PTR if needed.	For approval of vendors, other than provided list in Tender, would be subject to acceptance of PTR, post placement of PO.
11	LIST OF VENDORS FOR BOUGHT-OUT ITEMS		CRV	We request to CUGL, kindly accept EMERSON make for CRV as they are accepted widely across all Natural Gas CGD & by many PMC. Request to accept same for this tender to meet delivery schedule. Please find attached PTR for your references.	For approval of vendors, other than provided list in Tender, would be subject to acceptance of PTR, post placement of PO.
12	LIST OF VENDORS FOR BOUGHT-OUT ITEMS		EVC	Kindly accept Plum Make for EVC to meet delivery schedule. Request to accept same for this tender.	For approval of vendors, other than provided list in Tender, would be subject to acceptance of PTR, post placement of PO.
13	TECHNICAL SPECIFICATION		Canopy	Bidder request accept 2mm MS canopy is accepted. Kindly confirm.	Accepted

Dushyant  
21/07/23

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Bid Document No.: CUGL/C&P/TEN2324/39 dated 12.07.2023 (E-Tender No. 55336)					
			Bidder's Queries/ Observation/Comments		
			CUGL Response		
14	TECHNICAL SPECIFICATION		3.1 certification	Bidder understands 3.1 certification is required for all the bought out items. Kindly confirm.	3.1 Certification is allowed for bought out items only.
15	Delivery/Completion Period		12 (Twelve) weeks from the date of award	Considering global Chip, USM Meter delivery & electronic component shortage, we request CUGL to provide delivery period 18 weeks from the date of issue of Release Order.	Tender Conditions Prevails.
16	TECHNICAL SPECIFICATION		USM Meter	In USM meter datasheet, USM meter size is 4" 150# is mentioned. Please confirm we follow the same or meter sizing calculated as per process parameters. Please confirm.	Refer Point No. 4 above. The end connection of USM Flow Meter could be as per OEM and are to be accommodated in the piping. The dimensions of the canopy should not be altered.
17	TECHNICAL SPECIFICATION		AMR (Automatic Meter Reading)	Please provide the detailed scope & datasheet for AMR.	Refer DRS - Design Conditions. The data sheet and QAP shall be provided by the bidder, for approval, after the placement of order.
18	TECHNICAL SPECIFICATION		AMR (Automatic Meter Reading) - data hosting	Please confirm the data hosting scope for AMR.	Data to be hosted on server
19	TECHNICAL SPECIFICATION		Mandatory Spares & commissioning spares list	Please provide the mandatory Spares & commissioning spares list.	Refer Point No 4 & 16 above
20	TECHNICAL SPECIFICATION		USM Meter-Meter runs (Up & Down stream)	USM meter shall be provided with meter run as per AGA 9. (Considering 10D upstream, flow straightener, 10D upstream, USM meter, 5D downstream)	Meter runs should be optimally used so that Meter Accuracy is not disturbed as stated in the USM Data Sheet.
21	TECHNICAL SPECIFICATION		USM Meter-Calibration	We understand that dry/Air calibration required for USM meter. Please confirm.	Wet Calibration required.
22	QAP		SKID FABRICATION QAP	No standard QAP has been. We will submit Emerson standard QAP in line with the tender specification	Accepted
23	QA Documents		QA document submission	QAP, Painting procedure, Hydrotest procedure and FAT procedure will be submitted by bidder.	Accepted
24	Painting		DFT Requirement	Bidder understands 80 to 100 micron is for all the piping, canopy and structure	Accepted
25	Painting		DFT Requirement	Bidder understands that for filter, valves and other bought items DFT and final colour shade will be as per manufacture	Accepted
26	General		Power supply provision	Bidder understands Power supply provision up to skid JB will be in client's scope.	EVC, AMR and USM shall be battery operated with minimum battery life of 5 years.
27	General		Scope	Bidder scope is limited to skid JB only further integration with SCADA will be in client's scope.	Integration with SCADA shall be in buyer's scope. Bidder has to provide open protocols so as to enable integration.
28	General		Supply of cable and cabling	Supply of cable, Cable tray and cabling up to skid JB will be in bidder's scope.	Refer Point No. 26 above
29	Tender Supply of Twin Stream DRS pg. : 108		Technical Specification for Ultrasonic Meter G-650	Kindly confirm the flow rate (1000 SCMH or 5000 SCMH) mentioned in USM data sheet. Also the MOC for entire skid is WCB. Please confirm.	Flow Rate to be considered is 5000 SCMH.

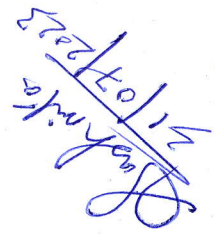




**Bid Document for the Procurement of 5000 SCMH, Twin Stream Canopied DRS with USM for Kanpur, Bareilly and Jhansi**

**Bid Document No.: CUGL/C&P/TEN2324/39 dated 12.07.2023 (E-Tender No. 55336)**

Sr. No.	Tender Clause No. / Annexures	Page No.	Subject	Bidder's Queries/ Observation/Comments	CUGL Response
30	Tender Supply of Twin Stream DRS Pg.: 94 & 130		Inlet Pressure	Kindly confirm the inlet pressure range, whether it is 19-26 Barg or 10-26 kg/cm <sup>2</sup>	Inlet Pressure Range shall be 10 -26 kg/cm <sup>2</sup> Bar
31	General specification		P&ID	please provide the P&ID.	Attached
32	General specification		Socket weld	Bidder understand valves and fitting below 2" shall be socket welded. Kindly confirm.	Refer Data sheet
33	General specification		Isolation valve	Request to accept 1/2" isolation ball valve for PG and DPT. kindly confirm.	Refer Data sheet
34	General specification		Pipe schedule	Bidder understand pipe schedule for all the sizes shall be 40, kindly confirm	Refer Data sheet
35	LIST OF VENDORS FOR BOUGHT-OUT ITEMS		SS Tube	We request to CUGL, kindly accept Ratnamani & Tubacex for SS Tube as they are accepted widely across all Natural Gas CGD & by many PMC. Request to accept same for this tender to meet delivery schedule.	For approval of vendors, other than provided list in Tender, would be subject to acceptance of PTR, post placement of PO.
36	LIST OF VENDORS FOR BOUGHT-OUT ITEMS		SS Fitting	We request to CUGL, kindly accept Dklok, Aiya & Comfit for SS Fitting as they are accepted widely across all Natural Gas CGD & by many PMC. Request to accept same for this tender to meet delivery schedule.	For approval of vendors, other than provided list in Tender, would be subject to acceptance of PTR, post placement of PO.
37	Monitor Regulator and		General	We understand Monitor regulator with Integral SSV is acceptable.	Tender Conditions Prevails.
38	Slam Shut		General	Hope Limit Switch is required for SSV	Tender Conditions Prevails.
39	Regulator and SSV		General	Kindly confirm the requirement of Radiography test in Regulator and SSV	Refer Data sheet.
40	Clause no. 1.3 of ITB, Pg. no 9 of 133		The successful bidder will be expected to complete the scope of Bid within the period stated in Special Conditions of Contract	Kindly furnish copy of SCC	Not Applicable
41	Clause - Payment Terms, pg. no. 117 of 133		95% payment shall be released within 30 days from the date of receipt of materials at site. 5% payment shall be released after commissioning of equipment or one year from the date of receipt of materials, whichever is earlier.	95% payment shall be released within 30 days from the date of receipt of materials at site. 5% payment shall be released within 45 days after commissioning of equipment/ supply of materials at site whichever is earlier	Tender Conditions Prevails.
42	Clause - Payment Terms, pg. no. 117 of 133		12 (Twelve) weeks from the date of award	Due to Global supply chain issues occurring, we are facing high turnaround time for various field instruments along with EVC/ FC. Hence, we request CUGL to accept delivery terms as 24-26 weeks from Date of PO.	Tender Conditions Prevails.
43	Clause no. 8 (b); pg. no 92 of 133		Data Sheets and Typical P&ID.	Please furnish P&ID copy	Attached
44	Clause no. 8 of IFB, pg. no. 4 of 133		Bid Due Date and Time	We request CUGL to extend bid due date by 14th August 2023. Extension time is asked based on 15 days timeline after Replies to Pre-bid queries is received from CUGL side.	Tender Conditions Prevails.
45	Warranty Clause		General	The warranty shall remain valid for twelve 12 months / 24 months from supply of DRS. Kindly confirm	Tender Conditions Prevails.
46	Modification in Contract, 9 of GCC		Complete Clause	No modification/amendment shall be valid unless the same is mutually agreed by both Parties after considering impact over cost and delivery time	Tender Conditions Prevails.
47	Patent, Rights, Liability & Compliance Regulations, 11 of		Complete Clause	i. Kindly add word "direct" before the word costs, expenses and damages ii. Also kindly add the following:- Seller's liability pursuant to this indemnification clause shall be limited in accordance with the terms of Article "Limitation of Liability."	Tender Conditions Prevails.
48	Incidental, 18 of GCC		Complete Clause	The scope shall be as mutually agreed and mentioned in the PO	Tender Conditions Prevails.

  
 M. J. Singh  
 Director  
 Kanpur Water Supply Corporation Limited



31/07/2023  
 J. Srinivas  
 (Signature)




Bid Document for the Procurement of 5000 SCMH, Twin Stream Canopied DRS with USM for Kanpur, Bareilly and Jhansi				Bid Document No.: CUGL/C&P/TEN2324/39 dated 12.07.2023 (E-Tender No. 55336)
Sr. No.	Tender Clause No. / Annexures	Page No.	Subject	Bidder's Queries/ Observation/Comments
49	Guarantee, 20 of GCC		Complete Clause	The word "Design" to be deleted as we don't give warranty for design being approved by customer
50				If any trouble of defect, originating with the design, material, workmanship or operating characteristics of any materials, arises at any time prior to twelve (12) months from the date of the first commercial operation of the plant for which the materials supplied under the contract form a part thereof, or twenty four (24) months from the date of last shipment whichever period shall first expire, and the supplier is notified thereof, supplier shall, at his own expense and within reasonable time, make such permit the materials to function in accordance with the specifications and to
51				Kindly delete line "Owner may, at his option, remove such defective materials, at supplier's expense in which event supplier shall, without cost to owner and as promptly as possible, furnish and install proper materials."
52	Sub letting and owners, 23 of GCC			The owner shall not make assignment sublet, transfers or assign the contract or any part thereof or interests without giving prior intimation to Supplier
53	Delay sellers performance, 25 of GCC			Kindly delete the said clause as in case of delay the remedy is already provided as Price Reduction Schedule
54	Price Reduction Schedule for Delayed Delivery, 26 of GCC			Kindly replace "½ % (half percent) of the total contract price" with "½ % (half percent) of the value of delayed quantity of undelivered goods". Kindly replace "5% (five percent) of the total contract price" with "5% (five percent) of the value of delayed quantity of undelivered material"
55	Rejection, 27 of GCC			27.2- Free replacement or repair
56	Termination, 28 of GCC			28.1.3 In case of termination of contract, owner shall pay to the supplier for the goods supplied, work in progress, service rendered as on date of termination
57				28.3.2 The Goods that are complete and ready for shipment within 30 days after the Supplier's receipt of notice of termination shall be purchased by the Owner at the Contract terms and prices. For the remaining Goods, the Owner may opt: Kindly add the following after clause 28.3-
58				a) In case of cancellation/termination for convenience, the Seller shall be entitled to recover the cancellation charges as given in note 1 below shall apply along with 10% Add: epidemic, pandemic, shortage of material due to nationwide problem or any other act beyond reasonable control of Supplier
59	Force majeure, 29 of GCC			The Supplier shall advise Owner by a registered letter duly certified by the local Chamber of Commerce or statutory authorities;
60				<b>In the event of delay lasting over one two month, if arising out of causes of Force Majeure</b>
61				Supplier shall categorically specify the extent of Force Majeure Conditions prevalent in their works at the time of submitting their bid and whether the same have been taken into- KINDLY DO THE NEEDFUL AS VERY IMPORTANT
62				
63	Fall clause, 38 of GCC			Kindly Delete Complete clause




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				<b>Bid Document No.: CUGL/C&amp;P/TEN2324/39 dated 12.07.2023 (E-Tender No. 55336)</b>  CUGL Response
64	Technical Specification for USM Meter	108 of 133	End Connection: Flanged End, 150# 4" DN100 for API5L	Based upon flow capacity & G650 meter rating, the USM Meter End connection shall be 6" (DN150) x 150#, instead of 4"x150#. Kindly confirm the same.
65	Process Data	108 & 130 of 133	5000 48 bars for 300# / 10 bars for 150#	With reference to given Process condition, we understand the USM shall be installed in the Downstream of the DRS Skid. Please Confirm our understanding.
66	P&ID	-	-	We request CUGL to share the P&ID for the DRS Skid.
67	SOR	132 of 133	Bidder to supply Commissioning spares along with DRS.	We request CUGL to share the Commissioning spare List.
68	SOR	132 of 133	Mandatory spare - 1 Set only to be supply	We request CUGL to share the Mandatory spare List to be supplied along with the Supply.
69	SOR	132 of 133	Mandatory spare - 1 Set only to be supply	Please clarify, Mandatory spare are part of Evaluation in the SOR ?
70	SOR	132 of 133	Site Location ( Kanpur / Bareilly / Jhansi)	We understand that 4 Skids shall supplied to Each location as below : Kanpur - 4 Skids Bareilly - 4 Skids Jhansi - 4 Skids Please confirm our understanding.
71	BEC	54 of 133	Bidder should have successfully designed, developed, installed and commissioned at least 6 Nos of DRS Skid of 5000 SCMH.	We request CUGL to accept 2 Nos DRS Skid of 5000 SCMH instead of 6 Nos, successfully designed, developed, installed and commissioned DRS Skid of 5000 SCMH to Oil & Gas Customer in India.
72	Technical specification, Scope of Supply	108	This bid document is for supply of Twin Stream Canopied District Regulating Station (DRS) of 5000 SCMH with Ultrasonic or Rotary Positive Displacement flow meter along with EVC and AMR	Bidder understands that USM is to be considered. Please confirm bidder understanding is correct.
73	Technical specification, Scope of Supply	102	The specification provided in bid document, together with all annexures enclosed covers the requirement for the design, engineering, manufacturing, testing, inspection, supply and commissioning of DRS as per all accessories and as per schematic line drawing/technical P&ID, technical specifications.	Schematic line diagram / typical P&ID, technical specifications, datasheet are not available in bid document. Kindly provide the same.
74	--	--	Selection of Ball Valve, Globe valve and Check Valve.	Datasheet for Ball Valve, Globe valve and Check Valve are not available in bid document. Kindly provide the same.
75	14	--	Installation, Field calibration, Testing and commissioning	Bidders understand that bidder's scope is limited to supervision of Installation, Field calibration, Testing and Commissioning.
76	B.11	94	DRS-Design Conditions	Process parameters mentioned in DRS - Design condition and in Process data (P.No. 110) are different. CUGL to confirm which process parameters to follow.
				Kindly elaborate the observed differences.



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77				Please confirm 3.1 certification is applicable for pressure parts.	
78	Technical		P&ID is not available in tender document	Kindly provide P&ID for above tender.	Attached
79	Technical		Valve Approval	Kindly approve GM Engineering valve for this tender. The same is having valid API 6D certificate & approved in most of CGD like GAIL, IOCL, IGL, Megha ETC.	For approval of vendors, other than provided list in Tender, would be subject to acceptance of PTR, post placement of PO.
80				Brief PTR is attached for your reference.	
81	Technical		EVC Requirement	Kindly confirm the requirement of EVC.	Required
82			Bid Extension	Kindly extend the bid due date by 10.08.2023	Refer corrigendum-2

Bidder are required to submit the "REPLY TO BIDDER'S QUERIES" alongwith the bid duly signed & stamped.

  
 21/07/2023  
 (Signature)  
 22/07/23




CENTRAL U.P. GAS LIMITED	MANUAL BALL VALVES	DATA SHEET No.
	ABOVEGROUND SERVICES	
	SIZE - 2" TO 12"	
	DATA SHEET	

**I. PROCESS DATA :**

- PIPE CLASS	:	3C1	- CORROSION ALLOWANCE	:	1.6 mm
- FLUID	:	Natural Gas			
- FLUID SYMBOL	:	NG			
<u>OPERATING CONDITION</u>					
TEMPERATURE (°C)	:	10 - 50			
PRESSURE (Barg)	:	19 - 35			
<u>DESIGN CONDITION</u>					
TEMPERATURE (°C)	:	0 - 60			
PRESSURE (Barg)	:	49			

**II. VALVE DATA :**

- APPLICABLE SPECIFICATION	:	PTS - Pipeline valves
- CONSTRUCTION DESIGN	:	API 6D
- PIPE CLASS	:	3C1
- RATING	:	300#
- VALVE BORE	:	AS per M.R.
- TYPE	:	TRUNNION MOUNTED - DOUBLE BLOCK AND BLEED - FULLY WELDED / BOLTED CONSTRUCTION
- END CONNECTION	:	AS PER M.R.
- BODY MATERIAL	:	ASTM A 216 GR. WCB / ASTM A 234 GR. WPB
- BALL MATERIAL	:	(ASTM A 216 GR. WCB / ASTM A 234 GR. WPB) + MINIMUM 75 MICRONS ENP
- BODY SEAT RINGS	:	AISI 4140 + MINIMUM 75 MICRONS ENP COATING / AISI 410
- SEAT SEAL	:	VITON / DEVLON
- STEM	:	AISI 4140 + MINIMUM 75 MICRONS ENP COATING / AISI 410
- STEM SEALS	:	VITON / PTFE
- STUD BOLTS/NUTS	:	ASTM A 193 Gr. B7 / ASTM A 194 GR. 2H
- PRIMARY SEAT	:	METAL TO METAL
- SECONDARY SEAT	:	DEVLOK / RPTFE or Equivalent
- FIRE SAFE	:	YES (Bidder to submit documentary proof)
- ANTISTATIC	:	YES
- ANTI-BLOW OUT	:	YES
- EXTENSION STEM	:	NO
- PUPS (Applicable only for BW end)	:	
LENGTH	:	2" Valve - 150mm, 4" Valve - 200mm, 6" Valve- 250mm, Above 6"- 300mm
MATERIAL OF CONSTRUCTION	:	for 2" TO 8" size - API 5L X-52
THICKNESS	:	Refer MR
- PAINTING (Refer Annexure II of PTS)	:	
Surface preparation	:	SA 2.5
Primer	:	Type of Paint, Total DFT shall be as per paint system no. chosen from Table 5, ISO 12944-5 for highly corrosive environment, Final Shade shall be as per Painting Specification no. P.014714 G11087 M002
Finish	:	
Final Paint DFT	:	300 µm (min.)
- INSULATION	:	NO

10.07.2023					Issued for Procurement	
DATE	REV	PREP	CHK	APP	DESCRIPTION	



**I. PROCESS DATA**

- PIPE CLASS : 3C1 - CORROSION ALLOWANCE : 1.6 mm
- FLUID : Natural Gas
- Fluid Symbol : NG
- OPERATING CONDITIONS
  - Pressure (barg) : 15-35
  - Temperature (°C) : 10 - 50
- DESIGN CONDITIONS
  - Pressure (barg) : 49
  - Temperature (°C) : 0 to 60

**II. VALVE DATA**

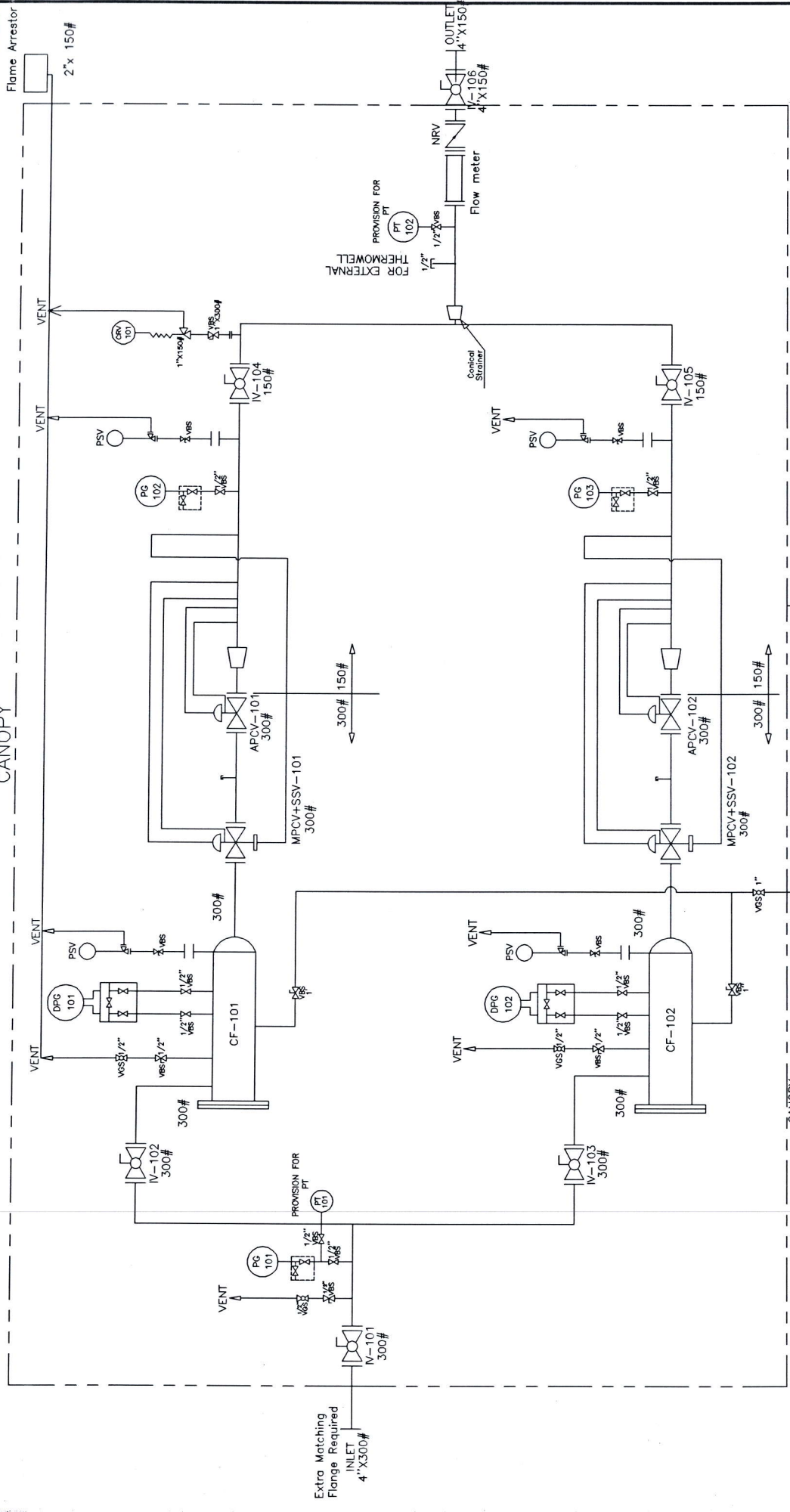
- CONSTRUCTION DESIGN : BS 1873
- TYPE : HIGH RESISTANCE TO VIBRATIONS AND HIGH DIFFERENTIAL PRESSURE
  - : BILINEAR OR EQUAL %
  - : PARABOLIC DISC/BI-DIRECTIONAL
  - : GLAND TYPE-BOLTED BONNET-NON ROTATING STEM
- PATTERN : STRAIGHT THROUGH GLOBE
- END CONNECTION : Refer MR
- FACE TO FACE : ANSI B16.10
- BODY MATERIAL : ASTM A 216 GR. WCB / ASTM A 234 GR. WPB
- DISC MATERIAL : (ASTM A 216 GR. WCB / ASTM A 234 GR. WPB) +STELLITED
- SEAT : (ASTM A 216 GR. WCB / ASTM A 234 GR. WPB) +STELLITED
- TRIM : ASTM A182 F6
- STEM : ASTM A182 F6
- GASKET : GRAPHITE
- PACKING : GRAPHITE
- OPERATOR : HANDWHEEL OPERATED
- PAINTING
  - Surface preparation : SA 2.5
  - Primer : Type of Paint, Total DFT shall be as per paint system no. chosen from Table 5, ISO 12944-5 for highly corrosive
  - Finish : environment, Final Shade shall be as per Painting Specification no. P.014714 G 11087 M003
  - Final Paint DFT : 300 µm (min.)
- INSULATION : No

DATE	REV	PREPARED BY	CHECKED BY	APPROVED BY	DESCRIPTION
10.07.2023	0				Issued for Procurement





CANOPY



PROCESS DATA

SERVICE	: NATURAL GAS
INLET PRESSURE OF SKID	: 10 TO 26 Barg
OUTLET PRESSURE OF SKID	: 4 Barg
FLOW RATE	: 5000 SCM/H
INLET SIZE OF SKID	: 4" X 300#
OUTLET SIZE OF SKID	: 4" X 150#
INLET TEMPERATURE	: 0 C TO 50 C

- 1) ALL VENTS SHALL BE LOCATED AT A MINIMUM HEIGHT OF 3MT ABOVE THE HIGHEST OPERATING PLATFORM.
- 2) ALL BALL VALVES SHALL BE FLOATING TYPE.
- 3) PSV SHALL BE DESIGNED FOR FIRE CASE.
- 4) CARTRIDGE ELEMENTS SHALL BE SUITABLE FOR DRY GAS.
- 5) EACH VENT LINE SHALL BE PROVIDED WITH A BALL VALVE & GLOBE VALVE.
- 6) DRS SHALL BE CABINET MOUNTED TYPE.
- 7) VENT HEADER SHALL BE PREFERABLY INSIDE THE CABINET AND VENT LINE SHALL BE PROPERLY SUPPORTED.

CENTRAL U. P. GAS LIMITED, (Kanpur)

TITLE : P&ID FOR NATURAL GAS DISTRICT REGULATING STATION (5000 SCM/H)