

TENDER NO. PROC-FC/CB/P&P/DKN-2057/2017

**SUPPLY OF EMERGENCY SHUTDOWN, BLOW DOWN
AND SOLENOID VALVES FOR DAKHNI PLANT**

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SECTION – II

MASTER SET OF PRESS TENDER DOCUMENTS-FOREIGN AVAILABLE ON OGDCL WEBSITE:
WWW.OGDCL.COM FOR REMAINING TERMS & CONDITIONS ALONG WITH ANNEXURE I.E
DATA SUMMARY SHEET, BIDDING FORM, INTEGRITY & ETHICS PACT ETC

(Note: In case of any conflict between Section I & Section II, Section I shall prevail)

TENDER NO. TENDER NO. PROC-FC/CB/P&P/DKN-2057/2017

TERMS & CONDITIONS

1. The case will be processed on single stage – two envelop bidding procedure as per PPRA Rules.
2. Bid shall remain valid for a period of 180 Days from the date of technical Bid Opening.
3. Commercial evaluation will be made on complete package. Incomplete bid will be rejected and will not be considered for evaluation. Bidders should quote for all the items in schedule of requirement.
4. The bidders are required to submit a Bid bond amounting to **USD 5000/-** or equivalent Pak rupees in shape of Bank Guarantee/pay Order upfront along with the technical bid. Any bid without bid bond shall be rejected without any right to appeal.
5. Bid Bond shall remain valid for a period of 210 Days from the date of technical Bid Opening. ***Bid Bond from RBS/NIB/SUMMIT Banks is not acceptable.***
6. OGDCL may arrange Third Party Pre-Shipment Inspection at its own cost. TPI Report issued by TPI Firms i.e. SGS/Velosi/Lloyds/TUV Austria shall be the Part of Shipping Documents.
7. Within ten (10) days of the receipt of notification of intent to award the Contract from OGDCL, the successful Bidder shall furnish a Performance Bond in the Form of Bank Guarantee (**Attachment-03**) for an amount of US\$ ten (10) percent (%) of the Contract Price as a guarantee for the due and faithful performance of the Contract. The said Performance Bond shall be valid upto Twenty Four (24) months from the date of shipment. The performance Bond shall be issued by a Pakistani Scheduled Bank or an International Bank operating in Pakistan and acceptable to OGDCL except ***RBS/NIB/SUMMIT Banks is not acceptable.*** Failure of the successful Bidder to comply with the requirements of Instruction shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Bond, in which event OGDCL may make the award to the next lowest evaluated Bidder or call for new Bids.
8. **The bidder shall provide a “certificate of compliance/acceptance” (attachment # 06) of complete tender document along with the technical bid.**
9. Only those clarifications will be entertained which are received ten (10) days before technical bid opening. Any clarification received after that shall not be responded.
10. Payment will be made as per Attachment No. 02.
11. Corporate and financial information of the company needs to be submitted with the technical bid as per Attachment # 05.

PAYMENT TERMS

The payment shall be made as follow:-

- a. Ninety (90%) percent of Material LC/Purchase Order Price shall be paid by OGDCL on shipment of the complete material. The payment under the L/C shall be effected upon submission of following documents upon each shipment of material component:
 - I. Original Clean on-board ocean vessel Master bills of lading.
 - II. Original detailed invoice showing material description, quantity unit price and total price strictly in line with the Contract.
 - III. Packing list
 - IV. Certificate and list of measurements and weight gross/net.
 - V. Mill Inspection/Quality Certificate.
 - VI. Insurance declaration.
 - VII. Warranty Certificate
 - VIII. Certificate of origin.
 - IX. Third Party Inspection report/certificate issued by any one of the following
 1. M/s Lloyds.
 2. M/s SGS
 3. M/s TUV Austria
 4. M/s Velosi
- b. Ten (10%) percent of the Material LC/Purchase Order Price shall be released under the L/C upon delivery of Complete Equipments/material at Karachi Port, Pakistan and after inspection/acceptance of material confirming complete delivery upon submission of Supplier's original invoice accompanied by OGDCL certificate that the complete equipment/material has been delivered.

PERFORMANCE BANK GUARANTEE

Oil & Gas Development Company
Limited OGDCL House, Jinnah Avenue,
Blue Area, Islamabad, (Pakistan)

Dear Sir,

Ref; our Bank Guarantee No. _____ in the sum of
_____ Account _____ in consideration of you
having _____ entered _____ into _____ Contract
No. _____ Dated _____ with _____ C
alled Contractor and in consideration for value received from CONTRACTOR. We hereby agree and
undertake as followings:

1 To make unconditional payment to you as called upon of (10%) ten percent of the Contract value of the contract price mentioned in the said contract, on your written FIRST and SIMPLE demand without further recourse, question or reference to CONTRACTOR or any other person in the event of default, non-performance or non-fulfillment by CONTRACTOR of his obligations, liabilities, responsibilities under the said contract of which you shall be the sole judge.

2 The accept written intimation from you as conclusive and sufficient evidence of the existence of the default or breach as aforesaid on the part of CONTRACTOR and to make payment immediately and forthwith upon receipt of your FIRST and SIMPLE written demand.

3 This Performance Bond shall remain valid and in full force and effect upto _____ or issue of statement of discharge by your authorized representative or return of original guarantee whichever is earlier.

4 DEMURRAGE DUE TO DELAY IN RECEIPT / NEGOTIATION OF ORIGINAL SHIPPING DOCUMENTS.

If clean documents are not negotiated within Negotiation Period allowed in Letter of Credit or documents are with held by Bank on account of any discrepancy:

- If the Demurrage, if any incurred due to late negotiation of the Clean Documents and paid by OGDCL will be realized from the beneficiary of L/C, by encashing this Performance Bond to the extent of demurrage amount. In case demurrage amount exceeds the total value of this Performance Bond the balance amount will be payable by the beneficiary.

1 That no grant of time or other indulgence to, amendment in the terms of the Contract by Agreement between the parties, or imposition or Agreement with CONTRACTOR in respect of the performance of his obligations under the said Agreement, with or without notice to us, shall in any manner discharge or otherwise affect this Guarantee and our liabilities and commitments there under.

2 This is an independent and direct obligation guarantee and shall be binding on us and our successors interest and shall be Irrevocable.

3 This guarantee shall not be affected by any change in the constitution of the Guarantor Bank or the constitution of the Contractor.

4 The Guarantor Bank Warrants and represents that it is fully authorized, empowered and competent to issue this guarantee.

(BANKERS)

DELIVERY PERIOD
TIME IS OF ESSENCE

SUPPLY OF EQUIPMENT/MATERIAL

The Supplier is required to deliver the complete equipment/material in **One Hundred Twenty (120) Days plus a grace period of seven (07) Days (in total not more than 127 days)** with CFR by Sea Karachi Port basis delivery from the date of establishment of letter of credit.

FORMAT OF CORPORATE & FINANCIAL INFORMATION

PART - I
GENERAL INFORMATION

1. Name (Full Company Name):
 - Postal Address :
 - Telephone:
 - Facsimile:
 - e-mail:
 - Website Address:
 - 1.1 Has the Company operated under any other name? If yes please give name, date of change and reason for change.
2. Type of Entity/Firm:
 - Corporation/Stock Company
 - Public Limited
 - Private Limited
 - Partnership
 - Proprietorship
3. Shareholders information/pattern with names and addresses of majority shareholders.
4. Place of Incorporation/Registration:
5. Year of Incorporation/Registration:
(Please provide copies of Incorporation/Registration Certificates and Memorandum & Articles of Association)
6. Company's National Tax No.
7. Company's Core Business Areas and their annual sales revenue/earnings during last five (5) years.
8. Name & Address of Owners/Directors
9. Valid Registration Certificate with Pakistan Engineering Council (PEC) where applicable.

PART - II

FINANCIAL STRENGTH

1. Provide details with regard to the financial standing of the applicant including copies of last three (3) years Audited profit & loss account and balance sheet. Also, please fill the financial summary as per below table;

S. No.	Description	Years		
		2014	2015	2016
1	Sales Revenue			
2	Paid Up Capital			
3	Profit Before Tax			
4	Profit After Tax			
5	Current Assets			
6	T. Asset			
7	Owner Equity			
8	Long Term Debt			
9	Current Liability			
10	Total Liabilities			

2. Bank(s) credit worthiness certificates (Latest Period) of applicant organization and available credit ceiling/limits with Account Number/Title.
3. Detail record with regard to litigation/arbitration proceedings or any other dispute related to project undertaken/being undertaken by the Bidder their Sub-Contractors and Suppliers (Specially with OGDCL it Joint Venture Partners or other public and private organizations working in the Oil & Gas sector of Pakistan) during past five (05) years.
4. Any information including brochures, references and other documentary evidence of technical qualification, capability and experience of the Applicant to execute the Project.

The undersigned on behalf of _____ hereby declare that the statements made and the information provided official herewith is complete, true and correct in every detail.

Signature

Official Seal of the Company

COMPLIANCE CERTIFICATE
(on official letter head)

Subject : TENDER NO. PROC-FC/CB/P&P/DKN-2057/2017 FOR SUPPLY OF EMERGENCY SHUTDOWN, BLOW DOWN AND SOLENOID VALVES FOR DAKHNI PLANT

We have read and understood the tender documents completely and confirm total compliance with the technical and commercial requirement of the tender document.

Signed on behalf of _____

OIL & GAS DEVELOPMENT COMPANY LIMITED
PROCUREMENT DEPARTMENT, ISLAMABAD
FOREIGN SECTION C

(To be completed, filled in, signed and stamped by the principal)

ANNEXURE 'A'

Material EMERGENCY SHUTDOWN, BLOW DOWN AND SOLENOID VALVES FOR DAKHNI PLANT
Tender Enquiry No PROC-FC/CB/P&P/DKN-2057/2017
Due Date
Evaluation Criteria FULL

SCHEDULE OF REQUIREMENT

Sr No	Description	Unit	Quantity	Unit Price (FOB)	Total Price (FOB)	Unit Price C & F BY SEA	Total Price C & F BY SEA	Deviated From Tender Spec. If Any
1	Blow Down Valve (Automatic Ball Valve) Tag No. 60-BDV-01, 3", 300# / RF CS, A-216-WCB Detail Specification enclosed in attachment.	Number	1					
2	Blow Down Valve (Automatic Ball Valve) Tag No. 60-BDV-07, 2", 300# / RF CS, A-216-WCB Detail Specification enclosed in attachment.	Number	1					
3	Solenoid Valves Detail Specification enclosed in attachment.	Number	3					
4	Tag No. 100-ESDV-01, 8", 600# CS, A-216-WCB, Max Pressure:1415 PSIG, Max. Temp: 150 Deg.F, Max Flow: 90905 lb/hr Detail Specification enclosed in attachment.	Number	1					
5	Tag No. 100-ESDV-02, 6", 600# CS, A-216-WCB, Max Pressure:1415 PSIG, Max. Temp: 150 Deg.F, Max Flow: 90905 lb/hr Detail Specification enclosed in attachment.	Number	1					
6	Tag No. 100-XY-01, Respective Valve Tag Number: 100-LCV-02, P & ID Number: 2310-PB-2053(Sh 1 of 2) (Gas Separator Station), To be supplied loose.Detail Specification enclosed in attachment.	Number	1					
7	Tag No. 100-XY-02, Respective Valve Tag Number: 100-XV-02, P & ID Number: 2310-PB-2053(Sh 1 of 2) (Gas Separator Station), To be supplied loose.Detail Specification enclosed in attachment.	Number	1					
8	Tag No. 100-XY-03, Respective Valve Tag Number: 100-XV-03, P & ID Number: 2310-PB-2053(Sh 1 of 2) (Gas Separator Station), To be supplied loose.Detail Specification enclosed in attachment.	Number	1					
9	Tag No. 100-XY-04, Respective Valve Tag Number: 100-LCV-01, P & ID Number: 2310-PB-2053(Sh 1 of 2) (Gas Separator Station), To be supplied loose.Detail Specification enclosed in attachment.	Number	1					
10	Tag No. 100-XY-05, Respective Valve Tag Number: 100-LCV-04, P & ID Number: 2310-PB-2053(Sh 1 of 2) (Gas Separator Station), To be supplied loose.Detail Specification enclosed in attachment.	Number	1					
11	Tag No. 100-XY-06, Respective Valve Tag Number: 100-XV-06, P & ID Number: 2310-PB-2053(Sh 1 of 2) (Gas Separator Station), To be supplied loose.Detail Specification enclosed in attachment.	Number	1					
12	Tag No. 100-XY-07, Respective Valve Tag Number: 100-XV-07, P & ID Number: 2310-PB-2053(Sh 1 of 2) (Gas Separator Station), To be supplied loose.Detail Specification enclosed in attachment.	Number	1					
13	Tag No. 100-XY-08, Respective Valve Tag Number: 100-LCV-03, P & ID Number: 2310-PB-2053(Sh 1 of 2) (Gas Separator Station), To be supplied loose.Detail Specification enclosed in attachment.	Number	1					
14	Tag No. 100-XY-09, Respective Valve Tag Number: 100-LCV-06, P & ID Number: 2310-PB-2053(Sh 1 of 2) (Gas Separator Station), To be supplied loose.Detail Specification enclosed in attachment.	Number	1					
15	Tag No. 100-XY-10, Respective Valve Tag Number: 100-XV-10, P & ID Number: 2310-PB-2053(Sh 1 of 2) (Gas Separator Station), To be supplied loose.Detail Specification enclosed in attachment.	Number	1					
16	Tag No. 100-XY-11, Respective Valve Tag Number: 100-XV-11, P & ID Number: 2310-PB-2053(Sh 1 of 2) (Gas Separator Station), To be supplied loose.Detail Specification enclosed in attachment.	Number	1					
17	Tag No. 100-XY-12, Respective Valve Tag Number: 100-LCV-05, P & ID Number: 2310-PB-2053(Sh 1 of 2) (Gas Separator Station), To be supplied loose.Detail Specification enclosed in attachment.	Number	1					

OIL & GAS DEVELOPMENT COMPANY LIMITED
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18	Tag No. 100-XY-14, Respective Valve Tag Number: 100-LCV-07, P & ID Number: 2310-PB-2053(Sh 1 of 2) (Gas Separator Station), To be supplied loose.Detail Specification enclosed in attachment.	Number	1
19	Tag No. 100-XY-15, Respective Valve Tag Number: 100-LCV-08, P & ID Number: 2310-PB-2053(Sh 2 of 2) (Sweet Gas Separator Station), To be supplied loose.Detail Specification enclosed in attachment.	Number	1
20	Tag No. 100-XY-16, Respective Valve Tag Number: 100-PCV-06, P & ID Number: 2310-PB-2053(Sh 2 of 2) (Sweet Gas Separator Station), To be supplied loose.Detail Specification enclosed in attachment.	Number	1
21	Tag No. 100-XY-17, Respective Valve Tag Number: 100-LCV-09, P & ID Number: 2310-PB-2053(Sh 2 of 2) (Sweet Gas Separator Station), To be supplied loose.Detail Specification enclosed in attachment.	Number	1
22	Tag No. 100-XY-18, Respective Valve Tag Number: 100-PCV-01, P & ID Number: 2310-PB-2053(Sh 1 of 2) (Gas Separator Station), To be supplied loose.Detail Specification enclosed in attachment.	Number	1
23	Tag No. 100-XY-19, Respective Valve Tag Number: 100-PCV-02, P & ID Number: 2310-PB-2053(Sh 1 of 2) (Gas Separator Station), To be supplied loose.Detail Specification enclosed in attachment.	Number	1
24	Tag No. 100-XY-20, Respective Valve Tag Number: 100-PCV-03, P & ID Number: 2310-PB-2053(Sh 1 of 2) (Gas Separator Station), To be supplied loose.Detail Specification enclosed in attachment.	Number	1
25	Tag No. 100-XY-21, Respective Valve Tag Number: 100-PCV-04, P & ID Number: 2310-PB-2053(Sh 1 of 2) (Gas Separator Station), To be supplied loose.Detail Specification enclosed in attachment.	Number	1
26	Tag No. 100-XY-22, Respective Valve Tag Number: 100-HV-01, P & ID Number: 2310-PB-2053(Sh 1 of 2) (Gas Separator Station), To be supplied loose.Detail Specification enclosed in attachment.	Number	1
27	Tag No. 20-ESDV-01, 10", 600# CS, A-216-WCB, Max Pressure:1139 PSIG, Max. Temp: 150 Deg.F, Max Flow: 527216 lb/hr.Detail Specification enclosed in attachment.	Number	1
28	Tag No. 20-ESDV-02, 1.5", 600# CS, A-216-WCB, Max Pressure:1132 PSIG, Max. Temp: 150 Deg.F, Max Flow: 1710 lb/hr .Detail Specification enclosed in attachment.	Number	1
29	Tag No. 30-XV-04,P & ID Number E-3588-30005A (Glycol Re-Generation System) , To be supplied loose.Detail Specification enclosed in attachment.	Number	1
30	Tag No. 50-SV-01, Respective Valve Tag Number: 50-SDV-01, P & ID Number: E-3588-50006A(Sh 1 of 3) (Dew Point Reduction System), To be supplied loose.Detail Specification enclosed in attachment.	Number	1
31	Tag No. 50-SV-02, Respective Valve Tag Number: 50-SDV-02, P & ID Number: E-3588-50006A(Sh 1 of 3) (Dew Point Reduction System), To be supplied loose.Detail Specification enclosed in attachment.	Number	1
32	Tag No. 60-ESDV-02, 2", 300# CS, A-216-WCB, Max Pressure:300 PSIG, Max. Temp: 140 Deg.F, Max Flow: 1079 lb/hr.Detail Specification enclosed in attachment.	Number	1
33	Tag No. 60-ESDV-03, 1.5", 300# CS, A-216-WCB, Max Pressure:470 PSIG, Max. Temp: -25/325 Deg.F, Max Flow: 6851 lb/hr .Detail Specification enclosed in attachment.	Number	1
34	Tag No. 60-ESDV-04, 2", 300# CS, A-216-WCB, Max Pressure:225 PSIG, Max. Temp: 390 Deg.F, Max Flow: 5284 lb/hr.Detail Specification enclosed in attachment.	Number	1

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Due Date
Evaluation Criteria FULL

35	Tag No. 60-ESDV-05, 2", 300# CS, A-216-WCB, Max Pressure:454 PSIG, Max. Temp: -83 Deg.F, Max Flow: 1635 lb/hr .Detail Specification enclosed in attachment.	Number	1
36	Tag No. 60-ESDV-06, 1.5", 300# CS, A-216-WCB, Max Pressure:470 PSIG, Max. Temp: -25/325 Deg.F, Max Flow: 6851 lb/hr .Detail Specification enclosed in attachment.	Number	1
37	Tag No. 60-XY-01, Respective Valve Tag Number: 60-FCV-01, P & ID Number: E-3588-60005A-D1 (NGL Fractionator), To be supplied loose.Detail Specification enclosed in attachment.	Number	1
38	Tag No. 60-XY-04, Respective Valve Tag Number: 60-FCV-04, P & ID Number: E-3588-60005B-D1 (NGL Fractionator), To be supplied loose.Detail Specification enclosed in attachment.	Number	1
39	Tag No. 60-XY-06, Respective Valve Tag Number: 60-FCV-06, P & ID Number: E-3588-60005C-D1 (NGL Fractionator), To be supplied loose.Detail Specification enclosed in attachment.	Number	1
40	Tag No. 806-ESDV-01, 2", 600# CS, A-216-WCB, Max Pressure:1150 PSIG, Max. Temp: 150 Deg.F, Max Flow: 6000 lb/hr .Detail Specification enclosed in attachment.	Number	1
41	Tag No. 806-LCV-01, 2", 300# CS, A-216-WCB, Max Pressure:205 PSIG, Max. Temp: 120 Deg.F, Max Flow: 200 lb/hr .Detail Specification enclosed in attachment.	Number	1
42	Tag No. 806-LCV-02, 2", 300# CS, A-216-WCB, Max Pressure:50 PSIG, Max. Temp: 120 Deg.F, Max Flow: 200 lb/hr .Detail Specification enclosed in attachment.	Number	1
43	Tag No. 830-LY-01, Respective Valve Tag Number: 830-SDV-01, P & ID Number: 2310-PB-2075 (Hot Oil), To be supplied loose.Detail Specification enclosed in attachment.	Number	1
44	Tag No. 830-XY-01, Respective Valve Tag Number: 806-LCV-01, P & ID Number: 2310-PB-2072 (Fuel Gas System), To be supplied loose.Detail Specification enclosed in attachment.	Number	1
45	Tag No. 830-XY-02, Respective Valve Tag Number: 806-LCV-02, P & ID Number: 2310-PB-2072 (Fuel Gas System), To be supplied loose.Detail Specification enclosed in attachment.	Number	1
46	Tag No. 911-LY-01, Respective Valve Tag Number: 911-SDV-01, P & ID Number: 2310-PB-2077 (LPG Storage), To be supplied loose.Detail Specification enclosed in attachment.	Number	1
47	Tag No. 911-LY-02, Respective Valve Tag Number: 911-SDV-02, P & ID Number: 2310-PB-2077 (LPG Storage), To be supplied loose.Detail Specification enclosed in attachment.	Number	1
48	Tag No. 911-LY-03, Respective Valve Tag Number: 911-SDV-03, P & ID Number: 2310-PB-2077 (LPG Storage), To be supplied loose.Detail Specification enclosed in attachment.	Number	1
49	Tag No. 911-LY-04, Respective Valve Tag Number: 911-SDV-04, P & ID Number: 2310-PB-2077 (LPG Storage), To be supplied loose.Detail Specification enclosed in attachment.	Number	1
50	Tag No. 911-LY-05, Respective Valve Tag Number: 911-SDV-05, P & ID Number: 2310-PB-2077 (LPG Storage), To be supplied loose.Detail Specification enclosed in attachment.	Number	1

OIL & GAS DEVELOPMENT COMPANY LIMITED
PROCUREMENT DEPARTMENT, ISLAMABAD
FOREIGN SECTION C

(To be completed, filled in, signed
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ANNEXURE 'A'

Material	EMERGENCY SHUTDOWN, BLOW DOWN AND SOLENOID VALVES FOR DAKHNI PLANT
Tender Enquiry No	PROC-FC/CB/P&P/DKN-2057/2017
Due Date	
Evaluation Criteria	FULL

Note:

1. Standard warranty and guarantee for all the items should be provided.
2. The bidder must be an authorized agent of the OEM of the valves. Original authority letter should be provided with the technical bid
3. Manufacturer should have a valid ISO 9001-2000 certification copies of the certificates to be provided with the technical bid
4. OEM technical literature for all the items should be provided with the technical bid
5. Standard test/quality control documents/certificates should be provided with the technical bid
6. Details of manufacturing facilities should be provided i.e location, layout, capacity, manpower, certifications etc
7. Tests and inspections shall be carried out at the manufacturing facility by OGDCL designated third party inspectors before shipment of material, tentative schedule of the same should be provided.
8. A minimum of seven (07) years of manufacturing experience of the same type of items is required, which should be supported with documents including a verifiable list with name and full contact details of the purchaser of the valves, besides un-priced copy of contract/purchase order to be provided with the technical bid.
9. Country of origin of the material/goods, country of the manufacture and port of shipment should be provided separately.
10. All valves to be supplied must be newly manufactured and the bidder should submit a confirmation letter along with the technical bid stating that all supplied valves will be brand new. Refurbished valves will be rejected and the bidder will be penalized accordingly and blacklisted.
11. The offered items should not be obsolete within next five (05) years and a confirmation letter by OEM of the availability of the spares for next (05) years should be enclosed with the technical bid.

Sr. No.	Parameters	60-BDV-01	60-BDV-07
1	Tag Number	60-BDV-01	60-BDV-07
2	Line No.	600-HC-201-3"-B2	600-HC-202-2"-B1
3	Piping Class	300#	300#
4	P& ID No.	E-3588-60005A-D1 (NGL Fractionator)	E-3588-60005AB-D1 (NGL Fractionator)
5	PROCESS SERVICE CONDITIONS		
6	Fluid	Flare Gas	Flare Gas
7	State	Gas	Gas
8	Maximum Flow (lb/hr)	4636	1010
9	Maximum Inlet Pressure (PSIG)	270	480
10	Maximum Temperature (Deg. F)	203	Minimum: -90 / Max: 14
11	VALVE BODY		
12	Valve Type	Full Bore Ball	Full Bore Ball
13	Body Size / Rating	3" / 300 #	2" / 300 #
14	Body Material	A 216 WCB	A 216 WCB
15	Flange Rating / Flange face finish	300 # / RF	300 # / RF
16	Ball Material	316 SS	316 SS
17	Shaft Material	17-4 PH/ 316SS	17-4 PH/ 316SS
18	Seat Type / Material	Soft Seat / 316SS RPTFE insert	Soft Seat / 316SS RPTFE insert
19	Shutt-off Class / Leakage	Tight Shut-off / Class VI	Tight Shut-off / Class VI
20	Fail Action	Fail to Open	Fail to Open
21	Max. Valve Stroke Time (opening)	5 Seconds	5 Seconds
22	Max. Valve Stroke Time (closing)	30 Seconds	30 Seconds
23	ACTUATOR		
24	Actuator Type	Single Acting Spring Return	Single Acting Spring Return
25	Valve Duty (on/off or control)	On-Off	On-Off
26	Fail (open / close)	Open	Open
27	Air Supply Pressure (PSIG)	60-110	60-110
28	Hand Wheel Location	None	None
29	Pneumatic Connection Size	* VTA	* VTA
30	SOLENOID VALVE		
31	Type	3 - Way	3 - Way
32	Tag Number	60-SV-01	60-SV-07
33	Power Supply	24VDC	24VDC
34	Enclosure Material	Cast Aluminium	Cast Aluminium
35	Electrical Cable Entry	M20 x 1.5	M20 x 1.5
36	Manual Override	Yes	Yes
37	Electrical Area Classification	Ex'd IIC T4	Ex'd IIC T4
38	Enclosure Protection	IP65	IP65
39	LIMIT SWITCH		
40	Switch Type	Micro Switch Contact Type	Micro Switch Contact Type
41	Quantity	Two Open + Closed Position Switches	Two Open + Closed Position Switches
42	Tag Number	60-ZSO/ZSC-01	60-ZSO/ZSC-07
43	Contact Rating	24VDC 5A	24VDC 5A
44	Enclosure Material	Cast Aluminium	Cast Aluminium
45	Electrical Cable Entry	M20 x 1.5	M20 x 1.5
46	Electrical Area Classification	Ex'd IIC T4	Ex'd IIC T4
47	Enclosure Protection	IP65	IP65
48	ACCESSORIES		
49	File Regulator / Gauge	Yes	Yes
50	Air Accumulator Tank	None	None
51	Tag Plate	Yes	Yes
52	NACE Compliance	Yes	Yes
Terms & Conditions:			
1. Flange and Body construction shall be in accordance with ASME B16.5 and Valve Face to Face Std. / Face to Face Length shall be as per ASME B16.10.			
2. Approval for Electrical / Hazardous Area Classification shall be from CENELEC, ATEX, Factory Mutual(FM), IEC or Canadian Standard Association.			
3. Common Junction Box shall be provided for both limit switches. Junction Box shall have two (02) entries with one (01) Ex'd certified plug.			
4. Filter regulator, Solenoid Valves, Gauge and all accessories shall be provided installed on valve body. Pneumatic connections shall use 316SS tube and connectors.			
5. Air Accumulator Tank shall be sized for three (03) complete valve strokes. Check Valves, isolation valves and all fittings shall be provided with the tank.			
6. All wetted parts & valves body shall conform to NACE MR-0175 / ISO 15156 (latest Edition).			
7. Blowdown Valve shall be fire resistant and shall meet requirements of API 607 or SPEC 6FA (API)			
8. * VTA - Vendor to Advice.			

Sr. No.	Parameters	Emergency Shutdown Valves
1	Tag Number	Mentioned against all items in indent case
2	Process Service Conditions	Mentioned against all items in indent case
3	VALVE BODY	
4	Valve Type	Full Bore Ball
5	Body Size / Rating	Mentioned against all items in indent case
6	Body Material	Mentioned against all items in indent case
7	Flange Rating / Flange face finish	Mentioned against all items in indent case
8	Control Characteristics	On-Off
9	Ball Material	316 SS
10	Shaft Material	17-4 PH/ 316SS
11	Seat Type / Material	Soft Seat / 316SS RPTFE insert
12	Shutt-off Class / Leakage	Tight Shut-off / Class VI
13	Fail Action	Fail to Close
14	Max. Valve Stroke Time (opening)	30 Seconds
15	Max. Valve Stroke Time (closing)	05 Seconds
16	ACTUATOR	
17	Actuator Type	Pneumatic Spring Return Piston
18	Valve Duty (on/off or control)	On-Off
19	Fail (open / close)	Close
20	Air Supply Pressure (PSIG)	60-110
21	Pneumatic Connection Size	* VTA
22	SOLENOID VALVE	
23	Type	3 - Way
24	Electrical Cable Entry	M20 x 1.5
25	Body Material / Trim Material	316 SS / 316 SS
26	Connection Size	1/2" NPTF
27	Seat Material	NBR (Nitrile Butadiene Rubber)
28	Manual Override	No
29	Enclosure Material	Cast Aluminium
30	Coil Type	Moulded coil with screw terminals
31	Single or Double	Single Coil
32	Power Supply	24 VDC
33	Electrical Area Classification	Ex'd IIC T4
34	Enclosure Protection.	IP65
35	LIMIT SWITCH	
36	Switch Type	Micro Switch (Contact Type)
37	Quantity	Two Open + Closed Position Switches
38	Contact Rating	24VDC 5A
39	Enclosure Material	Cast Aluminium
40	Electrical Cable Entry	M20 x 1.5
41	Electrical Area Classification	Ex'd IIC T4
42	Enclosure Protection	IP65
43	ACCESSORIES	
44	Hand Wheel	No
45	Filter Regulator / Gauge	Yes
46	Air Accumulator Tank	No
47	Tag Plate	Yes
48	NACE Compliance	Yes
Terms & Conditions:		
1. All Valves shall be designed, manufactured and tested according to API - 6D. Flange and Body construction shall be in accordance with ASME B16.5 and Valve Face to Face Std. / Face to Face Length shall be as epr ASME B16.10.		
2. Approval for Electrical / Hazardous Area Classification shall be from CENELEC, ATEX, Factory Mutual(FM), IEC or Canadian Standard Association.		
3. Common Junction Box shall be provided for both limit switches. Junction Box shall have two (02) entries with one (01) Ex'd' certified plug.		
4. Filter regulator, Solenoid Valves, Gauge and all accessories shall be provided installed on valve body. Pneumatic connections shall use 316SS tube and connectors.		
5. Air Acumulator Tank shall be sized for three (03) complete valve strokes. Check Valves, isolation valves and all fittings shall be provided with the tank.		
6. Shutdown Vlaves should be fire resistant and shall meet requirement of API 607 or SPEC 6FA (API).		
7. All wetted parts & valves body shall conform to NACE MR-0175 / ISO 15156 (latest Edition).		
8. Vendor shall provide Ex'e' metallic plugs for spare electrical connection.		
9. * VTA - Vendor to Advice.		

Annexure-A

Sr. No.	Parameters	ALL SOVs
1	Tag Number	Mentioned against all items.
2	Respective Valve Tag Number	Mentioned against all items.
3	Solenoid Type (2 -3 -4 Way)	3-Way Solenoid Valve
4	Configuration	Normally Closed
5	Direct Operated	Direct
6	CONSTRUCTION - BODY	
7	Body Material	316 SS
8	Connection Size	1/4" NPT (F)
9	Body Rating	150 PSIG
10	Trim Material	316 SS
11	Manual Operator	Yes
12	Seat Material	NBR (Nitrile Butil Rubber)
13	Electrical Connection Size	Cable Entry M20 x 1.5
14	Action Deenergized	-
15	Enclosure Type	Epoxy coated cast iron, explosion proof.
16	Coil Type	Moulded coil with screw terminals
17	Single or Double	Single Coil (Heavy duty Type)
18	Voltage (+10 / -20%)	24 VDC
19	Power Consumption	Approx. 10 Watt.
20	Enclosure Protection	IP 65
21	Electrical Area Classification	EExd IIC T4
22	Coil Insulation Class	F
23	Switching Frequency / Year	50 / Year
24	OPERATING CONDITION	
25	Flowing Medium	Instrument Air
26	Operating Pressure Nor. / Max	100/150 PSIG (Design 150 PSIG)
27	Operating Temperature Nor. / Max	50/110 Deg F (Design 38 / 121 Deg F)
28	Silence	No
29	Manufacturer & Type / Model No.	ASCO / Vendor to Advise.
Terms & Conditions:		
1. Vendor shall provide SS Tag attached with SS Screws or SS wire. Tag shall contain Tag No. & Model No.		