

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

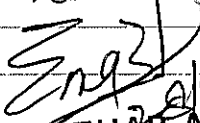
(To be completed, filled in, signed and stamped by the principal)

ANNEXURE 'A'

**Material** SMOKE, FIRE & GAS DETECTION SYSTEM FOR CHEMICAL/MECHANICAL INVENTORY SHED/LUBE OIL SHEDS & BUILDINGS  
**Tender Enquiry No** PROC-FE/CB/P&P/UCH-5141/2021  
**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	Addressable Beacon/Sounder, Isolator: Yes, Max Sound Output Tone :100 dB, Operating Temp : -10 to 55 DegC, IP Rating : IP 21. System Powered, Part No. 00518-518 , Glands and Termination Accessories: Yes Det-tronics or Equivalent	Number	28					
2	Addressable Heat Detector, Type:Heat Sensitive Resistance, Operating Voltage:17V-28 Vdc, System Powered, Alarm LED : Yes, Temp:-40 to 80C, IP Rating: IP44, Base:Yes. Part No. 000515-503 Glands & Term acce: Yes Det-tronics or Equivalent.	Number	8					
3	Addressable Smoke Detector, Type: Optical, Operating Voltage: 17-28VDC, System Powered, Temp: -40 Deg C to 70 Deg C, IP rating 44 Base: Yes, Part No. 000515-502 Glands and Termination Accessories: Yes. Det-tronics or Equivalent.	Number	112					
4	Beam Detector, Area Coverage: 1500 Sq Meter, Supply Voltage: 24 VDC, System Powered, Temp: -10-+55 Deg C, Standard Range: 5-50 Meter, Protection: IP50, Make: Carrier Fire & Security, Glands and Termination Accessories: Yes or Equivalent	Number	38					
5	Conduit & Fittings, Size: 1/2"-3/4", Material: GI, Type: Length or Equivalent	Lot	1					
6	Control Cabinet, Size Suitable to Controller, Panel Component: Redundant Power Supplies, Line up & Fuse Terminals, Circuit Breakers, Wiring Ducts and Accessories, Earthing bars including SIL2 EQP Controller (SEE ATTACHMENT) or Equivalent	Number	1					
7	Flame Detector Multi-Spectrum IR, System Powered 24 VDC, Output: EQP, Body Material: Al, Thread: M25, Approvals: SIL, FM, CSA, ATEX, IECEx. Model: X3301 Glands and Termination accessories: Yes. Det-tronics or Equivalent.	Number	1					
8	IR HC Gas Detector, Type: Pointwatch IR, Tread M25, OutPut: EQP, Weather Baffle: Yes, Approvals SIL, FM, CSA, ATEX, IECEx, System Powered 24 VDC, Model: PIRECL Glands and Termination accessories: Yes. Det-tronics or Equivalent.	Number	1					
9	Isolator, Part No. 000515-557, Det-tronics, or Equivalent.	Number	12					
10	Manual Call Point, Isolator :Yes, Type: Deformable, Temperature : -40 to 60 Deg C, IP Rating: IP 44, Part No. 000515-512 Glands and termination accessories: Yes Det-tronics or Equivalent.	Number	28					
11	Mini Monitor Module, Part No. 000515-562. Glands and Termination Accessories: Yes. Det-tronics or Equivalent.	Number	38					
12	PVC Duct, Size: 1/2"-3/4". Cover: Yes or Equivalent	Lot	1					
13	Swivel Mounting, Material Al, Model: Q9033 Det-tronics or Equivalent	Number	1					
14	LON Cable, Belden 8719, 2 Conductor 16awg ( 19x29) Tinned Copper, OR Equivalent	Meter	600					
15	Control Cable, 1.5mm 2 Conductor 16 AWG BC, L.SZH, Eca, Belden 4200E, or Equivalent	Meter	2000					

Vetted  
  
**MAZHAR ABBAS**  
 Dy. Chief Engineer (Inst.)-C/A  
 Process & Plants Deptt. O.G.D.C.I  
 Ext: 2367

P-277

**NOTE:**

1. **Bid Validity:** - Bid must be valid for 180 days from the date of Technical Bid Opening.
2. **Bid bond:** - US\$ 1,820/- (USD One Thousand Eight Hundred and Twenty Only) or equivalent in Pak Rupees should be submitted with the Technical Bid, which should be valid for 210 days.
3. **Evaluation Criteria:** FULL CONSIGNMENT WISE ON CFR BASIS KARACHI under Single Stage –Two Envelope Bidding Procedure
4. **Terms and conditions:**-Bidders are advised to carefully read all the terms and conditions of the Tender Document available at OGDCL website in the Master Set of Foreign Tender Document (Press-Single Stage Two Envelope)-Updated
5. **Delivery Period:** 20 Weeks from the date of L/C establishment
6. Bidders quoting equivalent parts must provide a certificate from at least three 03 E&P Companies of Foreign Jurisdiction other than the Bidders/Manufacturers own Country, stating that equivalent (quoted parts) are used by them and Performance of such parts is found satisfactory. Copies of Purchase Orders (unpriced) must also be provided. The Certificate(s) / sales record is mandatory and due to non-submission thereof, the Bid will be rejected.

Vetted  
2021  
10/2021  
MAZHAR ABBAS  
Dy. Chief Engineer (Inst.)-C/A  
Process & Plants Deptt. O.G.D.C.L  
Ext: 2367

ATTACHMENT FOR INDENT NO. UCH-6692 ( FOR ALL ITEMS)

FOR ITEM NO.6 (SIL2 EQP Controller (SIL, FM,CSA,ATEX,IECEX) EQ3016 Det-tronics or Equivalent, Addressable Smoke & Heat Module(64 No) EQ3750 Detronics or Equivalent, Programing Software, Ground Fault MonitorA and Interposing Relays,(Price should be included in Item No.6)

1. BIDDER TO CONFIRM THAT ALL ITEMS ARE BRAND NEW WITH STANDARD WARRANTY/GURRANTY.
2. BIDDER TO SUPPLY THE ITMS IN STANDARD PACKING.
3. EQUIVALENT WILL ONLY BE ACCEPTABLE IF COMPATIBLE WITH THE SYSTEM LIKE BASE/SHAPE/DESIGM/CONFIGURATION AND SPECIFICATIONS.
4. DURING INSTALLATION, IF ANY ITEM COMPONENT /DEVICE FOUND FAULTY , IT WILLBE REPLACED BY THE BIDDER FREE OF COST.
5. INSTALLATION/TESTING/COMMISSIONING AT SITE WILL BE THE RESPONSIBILTY OF THE BIDER .
- 6.BIDDER SHALL VISIT SITE BEFORE SUBMITTING TECHNICAL AND COMMERCIAL BID TO EVAULATE THE SITE CONDITIONS AND TO MEASURE THE DISTANCES FOR REQUIRED CABLE LENGTHS.
- 7.THE BIDDER SHALL SUBMIT THE BID INCLUDING BOM/MOQ COMPLETE IN ALL RESPECTS. CABLE TERMINATION ACCESSORIES ie. RESPECTIVE CABLE GLANDS, THIMBLES/LUGS/FERRULES/CABLE NUMBERINGS ETC SHALL BE AT BIDDRS END.
8. THE PROJECT SHALL BE TREATED AS "ON TURN KEY BASIS" ie. INSTALLATION,SOIL EXCAVATION AND BACK FILLING WHERE REQUIRED FOR CABLE LAYING, CONFIGURATION, TESTING AND COMMISSIONING, FINALLY HANDING OVER THE SYSTEM TO OGDCL.
9. THE PROJEC SHALL BE COMPLETED IN ONE GO. INTERMEDIATE BREAKS WILL NOT BE ALLOWED.
10. BIDDER TO QUOTE INSTALLATION/COMMISSIONING /TESTING CHARGES SEAPARATELY IN THE FINANCIAL BID.

NOTE: ABOVE TERMS & CONDITIONS ( T&C's) WILL BE

THE PART OF TENDER DOCUMNETS.

*Eng*

*20/9/2021*

Ext: 2367

Mr. Zaid Abbas  
 V/CO (Installation) OGDCL  
 Process & Plant Dept OGDCL  
 Ext: 2367

P-4/7

COMPLIANCE SHEET OF CONTROLLER			
CONTROLLER SPECIFICATIONS			Compliance (Yes/No)
1	Application	Building Fire Alarm System	
2	Type	Standalone EQP (EQ3016)	
3	Redundant	Yes (Required Redundant Controller)	
4	Display	4 Line 20 Character Alphanumeric display	
5	Trouble & Fault LEDs	Yes (Red LED for Alarm, Yellow for fault & Green for Power)	
6	Logic Support	Yes (Programmable Function Block like Add, Subtract, Boolean )	
7	Real Time System Clock	Yes	
8	Internal Alarm Sounder	Yes	
9	No. of Input/Output at Controller	Built in 08 Programmable Inputs & 08 Programmable Relay Outputs	
10	Input Voltage	24Vdc nominal (18 to 30Vdc)	
11	Input Power	9 Watts nominal (12 Watts max.)	
12	Protocol	RS 485 Modbus , TCP/IP , Optional ControlNet	
13	Communication Network	LON (SLC)	
14	Temperature Range	- 40°F to +185°F	
15	Humidity Range	5 to 95% RH (Non-Condensing)	
16	Compatibility	Addressable and Digital I/O	
17	External Watch Dog Timer	by User Logic	
18	IO Failure	Alarm Indication	
19	Programming	Acc. To IEC 61131-3	
20	Mounting	Din Rail /Panel Mounting	
21	Approvals	SIL2, FM , CSA , ATEX , IECEx , CE	
22	No. of Field Devices support	246	
23	LON Network length	10,000 meters	
24	Software		
i	Automatic serial port configuration:	baud rate, databits, stop bits, parity	
ii	Integral OPC	A wide variety of status and diagnostic information can be shared with DCS, PLC	
iii	Monitoring	120,000 events/alarms	
iv	Project Base development	Different project can be develop and Integral project backup / restore utility	
v	Security	Multi Level Security upto 64 user accounts	
<b>Notes :</b>			
a.	As per requirement of FM 3010 & NFPA 72. US coast guard type approval		
b.	Vendor will provide licensed programming software with controller		
c.	All necessary communication & configuration cables for Controller & its Modules will be vendor's responsibility.		
d.	Ground Fault Monitoring module must be provided with power system		
e.	Make & Model of Controller will be specified by supplier		

*Signature*  
9/10/2016

P-5A

COMPLIANCE SHEET OF LON CABLE			
LON Cable Specification			Compliance (Yes/No)
1	Service		Fire Alarm System
2	Installation		As per application
3	Direct Burial		Yes
4	Operating Conditions		
5	Maximum Temperature	°C	-20 to +80
6	Maximum Voltage		upto 600 V Analog signal & upto 600 V digital control
7	Cable Technical Data		
9	No. of Conductors		2
10	Conductor Size / Type		16 AWG, Tinned Copper
11	No. of Pairs		Single
12	Insulation Material		PE - Polyethylene with 0.032" thickness
14	Outer Jacket Material		PVC
16	Outer Sheath Material		BI-Laminate (Alum+Poly)
17	Outer Sheath Color		Black & Clear
18	Cable Gland Size		M16 (a suitable size)
19	Bedding Thickness	mm	Vendor to specify
20	Bending Radius		3.25 in (stationary)
24	Flammability / Fire Resistance		UL1685 UL Loading, FT1, IEC 60332-1-2
<b>Notes :</b>			
*	Cable Gland will be selected subject to cable outer diameter		
a.	Vendor shall provide details for the maximum length to be supplied on per drum		
b.	Make & Model of Instrument Cable will be specified by supplier		

*Engd*

P. 6/7

COMPLIANCE SHEET OF MINI MONITOR MODULE			
MINI MONITOR MODULE SPECIFICATIONS			Compliance (Yes/No)
1	Application	Indoor	
2	Operating Voltage	20 - 28 V dc	
3	Quiescent current	200 micro Amp @ 24V	
4	Housing	White flame-retardant polycarbonate	
5	Terminal	Nickel plated stainless steel	
6	Device	Loop powered device	
7	Three Color LED	Red for Alarm, Green for Power and Yellow for fault / short circuit	
8	End of Line Resistor (if required)	20 K ohm	
9	Mounting	Din Rail /Panel Mounting	
10	Pre Alarm Status	Yes	
11	Approvals	UL, ULC, FM, CSFM	
<b>Notes :</b>			
a.	Make & Model will be specified by supplier		
b.			

*[Handwritten signature]*

P-7/2

COMPLIANCE SHEET OF FLAME DETECTOR				Compliance (Yes/No)
Flame Detector Specification				
1	Application		Generator room	
2	Sensor		Multispectrum	
3	Type		Standalone with live communication with controller	
4	Trouble & Fault LEDs		Yes	
5	Sensitivity Levels		Multi	
6	Logic Support		Static & Programmable	
7	Input Voltage		24Vdc nominal (18 to 30Vdc)	
8	Input Power		4 Watts(without heater) & 17 watts (with heater)	
9	Output		EQP / LON	
10	Response Time		Methane 32" plume @ 5 sec from 38.1 meters	
11	Temperature Range		-40°F to +167°F	
12	Humidity Range		0 to 95% relative humidity	
13	Spectral Sensitivity Range		4 - 5 microns	
14	Field of View		90° horizontal by 75° vertical, at a minimum of 70% of the on-axis detection distance.	
15	IO Failure		Alarm Indication	
16	Detection range		Up to 125 feet for methane	
17	Approvals		SIL 2, FM , CSA , ATEX, CE, IECEx	
18	Dimension		Vendor to advise	
19	Conduit Entry Size		3/4 inch NPT or M25	
20	Communication with Controller		Through LON Network	
21	Warranty		5 Years	
22	Automatic Optical Integrity Check		Available	
23	Testing		Onsite testing with Magnet	
24	Swivel Mounting		Yes	
<b>Notes :</b>				
	• Detector Sensitivity level can be adjustable at field with flame inspector			
a.	All testing and commissioning tool will be provided by vendor			
b.	SS tags and cable glands will be provided with Flame Detector			
c.	Make & Model will be specified by supplier			

*Energy*