#### CENTRAL ORDNANCE DEPOT - RAWALPINDI

Central Ordnance Depot Rawalpindi

Tel:

GHQ

34729

17

Normal /LP

21 Apr 2022

SUBJECT: INVITATION TO TENDER AND GENERAL INSTRUCTIONS 17 NORMAL 2022

- DATE AND TIME OF CLOSING OF TENDER IS 06 May 2022 UPTO 1030 HOURS. 1.
- DATE AND TIME OF OPENING OF TENDER IS 06 May 2022 AT 1100 HOURS AT 2. THE PREMISES OF CENTRAL ORDNANCE DEPOT RAWALPINDI.
- RATES ARE INVITED FOR SUPPLY OF ITEMS MENTIONED AT ANX "A" TO THIS TENDER INQUIRY.
- TERMS AND CONDITIONS GOVERNING BIDDING/PURCHASES AND GENERAL **INSTRUCTIONS FOR BIDDERS:** 
  - THE PURCHASER CAN WAIVE OFF ANY OF THE CONDITIONS STIPULATED IN THIS TENDER INQUIRY AND RESERVES THE RIGHT TO ACCEPT OR REJECT THERETO.
  - BIDDERS SHOULD NOTE THAT DECISION OF COMMANDANT CENTRAL b. ORDNANCE DEPOT RAWALPINDI WILL BE FINAL IN RESPECT OF ACCEPTANCE / REJECTION OF THE OFFERS.
  - ALL SAMPLES AND SUPPLIES WILL BE SUBJECT TO TESTS AND C. INSPECTIONS EITHER BY CONCERNED INSPECTORATES OR A BOARD OF OFFICERS CONSTITUTED FOR THE PURPOSE AND ANY COST INCURRED ON TESTS / INSPECTIONS AND STORES CONSUMED IN THE SAME WILL BE BORNE BY SUPPLIERS. DEPOT MAY TEST/INSPECT SAMPLES BEFORE PLACING OF PURCHASE ORDERS.
  - SUCCESSFUL BIDDERS WILL HAVE TO COMPLETE THE SUPPLIES WITHIN d. PERIOD AS SPECIFIED IN THE PURCHASE ORDERS, FAILING WHICH APPROPRIATE PENALTY AS DECIDED BY COMMANDANT CENTRAL ORDNANCE DEPOT RAWALPINDI WILL BE IMPOSED AND NECESSARY / APPROPRIATE DISCIPLINARY ACTION WILL ALSO BE TAKEN.
  - DURING WARRANTY PERIOD (IF STORES) SUPPLIED IS/ARE BACKED BY e. WARRANTY) IF A FAULTS OCCURS IN SUPPLIED STORES THEN SUPPLIER WILL BE RESPONSIBLE TO EITHER RECTIFY THE FAULTS COMMUNICATED OR GET THE FAULTY PARTS REPLACED WITH IN 7 (SEVEN) DAYS OF RECEIPT OF INFORMATION IN THIS REGARD FROM THE PURCHASER AT HIS SPECIFIED PLACES WHICH CAN BE OTHER THAN THE PLACE OF DELIVERY OF STORES. IN CASE SUPPLIER FAILS TO RECTIFY THE FAULTS OR REPLACE THE FAULTY PARTS IN A SPECIFIED TIME THAN PURCHASER WILL HAVE THE RIGHT TO TAKE DISCIPLINARY ACTION AGAINST THE SUPPLIER AND ALSO IMPOSE PENALTY IF CONSIDERED NECESSARY/ APPROPRIATE.
  - DURING WARRANTY PERIOD IT WILL BE THE RESPONSIBILITY OF THE f. SUPPLIER TO CARRY OUT PERIODIC MAINTENANCE OF SUPPLIED

9. cod 224-65. pe

- STORES AS PRESCRIBED BY THE MANUFACTURERS FREE OF COST AT PURCHASER'S SPECIFIED PLACES WHICH CAN BE OTHER THAN THE PLACE OF DELIVERY OF STORES.
- g. SAMPLE AND STORE OFFERED WOULD BE BRAND NEW, UNUSED, AS PER APPROVED SPECIFICATIONS, DRAWING AND SAMPLES WHERE APPLICABLE.
- h. IN CASE OF AN ITEM HAS NO SPECIFICATIONS, DRAWING OR APPROVED SAMPLE THEN A BOARD OF OFFICERS APPOINTED FOR THE PURPOSE

i. j.

- WILL DECIDE ITS ACCEPTABLE STANDARDS.
- I. MAKE / MODEL / BRAND AND COUNTRY OF ORIGIN OF STORES MUST BE MENTIONED WHERE APPLICABLE.
- m. MANUFACTURER CERTIFICATE OF BRANDED ITEMS MUST BE PROVIDED.
- n. PRICES / RATES WILL BE QUOTED ON DELIVERY BASIS AT LOCATIONS AS MENTIONED IN PARA 4 ABOVE.
- PRICES / RATES QUOTED MUST BE INCLUSIVE OF ALL APPLICABLE TAXES / DUTIES.
- PRICES / RATES QUOTED MUST BE AS PER ACCOUNTING UNIT.
- q. MORE THAN ANY MANUFACTURE/MODEL MAY ALSO BE QUOTED GIVING SEPARATE PRICE OF EACH MANUFACTURE/MODEL.
- PRICES/RATES WILL BE QUOTED IN PAKISTANI CURRENCY.
- s. PRICES/RATES QUOTED WILL BE APPLICABLE TO COMPLETE ZONE.
- t. PRICES / RATES QUOTED WILL BE VALID FOR SIX MONTHS FROM DATE OF OPENING OF TENDERS.
- U. BID SECURITY / PERFORMANCE GUARANTEE MAY BE ASKED, IF REQUIRED. SUCCESSFUL BIDDERS WILL HAVE TO SUPPLY STORES AS PER PRICES / RATES QUOTED FOR SIX MONTHS FROM DATE OF OPENING OF TENDER'S OR ELSE APPROPRIATE DISCIPLINARY ACTION WILL BE TAKEN AGAINST THE FIRM.
- v. DRAWING OF SAMPLES FOR TEST/INSPECTION FOR ACCEPTANCE OF STORES TO BE SUPPLIED AGAINST PURCHASE ORDERS FOR TEST / INSPECTION PROCESSES WILL ONLY COMMENCE WHEN COMPLETE / ORDERED QUANTITIES HAS BEEN SUPPLIED.
- W. PART DELIVERY / PART PAYMENT WILL NOT BE ACCEPTED / MADE.
- x. PAYMENT WILL BE MADE AFTER ACCEPTANCE OF ORDERED STORES.
- y. IF STORES ARE NOT DELIVERED WITHIN DELIVERY PERIOD, PENALTY WILL BE IMPOSED.
- z. ITEMS SHOULD BE PACKED PROPERLY AT THE TIME OF DELIVERY.

#### SPECIAL INSTRUCTIONS.

- a. AS FAR AS POSSIBLE PRICE(S) / RATE(S) MUST BE QUOTED AGAINST EACH ITEM, WHERE PRICES / RATES ARE NOT BEING QUOTED THIS SHOULD BE REFLECTED BY WORDS "NOT QUOTED".
- b. LIST OF STORE(S) (HARD COPY) WILL BE SUBMITTED DULY TYPED, (NOT HAND WRITTEN) SIGNED AND DULY STAMPED ON EACH PAPER OR ELSE OFFER WILL BE REJECTED.
- c. PRICES / RATES QUOTED MUST BE TYPED AND NOT HAND WRITTEN ON HARD COPY OR ELSE OFFER WILL BE REJECTED.
- d. QUOTED RATES ARE ONLY VALID ON FIRM'S LETTER HEAD.

- e. NO CHANGE SHOULD BE MADE IN SOFT COPY OF TENDER INQUIRY PROVIDED (LIST OF STORES AND BIDDERS SHOULD FILL PRICES) / RATES IN FRONT OF THE ITEMS WITHOUT DELETING / AMENDING ANY COLUMN / ROW AND WITHOUT DISTURBING THE SERIAL NUMBERS.
- f. THE BID AGAINST THE ITEMS SHALL COMPRISE TWO SEPARATE ENVELOPES. EACH ENVELOPE SHALL CONTAIN SEPARATELY THE FINANCIAL PROPOSAL AND THE TECHNICAL PROPOSAL.
- g. THE ENVELOPES SHALL BE MARKED AS "FINANCIAL PROPOSAL"
  AND "TECHNICAL PROPOSAL" IN BOLD AND LEGIBLE LETTERS
  TO AVOID CONFUSION. INITIALLY, ONLY THE ENVELOPE MARKED
  "TECHNICAL PROPOSAL" SHALL BE OPENED.
- h. THE ENVELOPE MARKED AS "FINANCIAL PROPOSAL" SHALL BE OPENED AFTER ACCEPTANCE OF "TECHNICAL PROPOSAL".
- 6. <u>PURCHASER'S RIGHT.</u> PURCHASER DOES NOT PLEDGE TO ACCEPT THE LOWEST OR ANY TENDER AND RESERVES THE RIGHT OF ACCEPTING THE WHOLE OR ANY PART OF THE OFFER MADE.
- 7. <u>DELIVERY OF TENDER.</u> THE OFFER IS TO BE SUBMITTED AS PER PARA 5 OF THE TENDER INQUIRY.
- 8. DATE AND TIME OF RECEIPT OF TENDER. YOUR TENDER MUST REACH THIS DEPOT / DROPPED IN TENDER BOX PLACED AT FORT GATE COD RAWALPINDI BY TIME AND DATE AS SPECIFIED IN PARA 1 ABOVE. THIS OFFICE WILL NOT ACCEPT ANY EXCUSE OF DELAY OCCURRING IN POST. TENDERS RECEIVED AFTER THE APPOINTED / FIXED TIME WILL NOT BE ENTERTAINED. THE APPOINTED TIME WILL FALL ON NEXT WORKING DAY IN CASE OF CLOSED / FORCED HOLIDAY.

LIEUTENANT COLONEL LOCAL PURCHASE OFFICER (MUNEEB KHALID)

### TENDER 17 NORMAL 2022 - COD RWP

Ser	Nomenclature	A/U	Rate	Remarks
Item	s required for ASC installations			Tomarks
1.	Mob Motor Trolley	Nos		Sample of each are available in POL
2.	Fire Fighting System	Nos		Depot Lahore Firm's Rep can visi
3.	POL Flow Counting System	Nos		before quoting the rates
4.	Radar TK Gauging	Nos		

### (MOB MOTOR TROLLEY)

Ser	PART-I Responsibility Re									
1.	Sponsoring Dte									
2.	No	menclature / Title	Mob Trolley	L						
3.	Ca	t of needed eqpt	Engr Eqpt							
4.	Op	Need / Reg								
	a.	Filling in decanting from bulk to bulk, bulk to pack, pack to bulk and pack to pack.								
5.	Main Task / Reg / Obj									
	a.	To acct as addn pump in case of mal func of main pump of any tank in a POL dep								
	b.	To tfr POL from Bzr to pack stock in fwd area								
	C.	Where req pack stock to anther PM (in case of leakage)								
6.	Ess	sential parameters								
	a.	Should toed with 1.5 ton or 5 ton								
	b.	Should ply its 70 kms speed when toed								
	C.	Should not req priming of pipe line for filling/ decanting								
7.	Preferable Parameters									
	a.	Should be easy to maint and repair								
	b.	Should meet safety precautions								

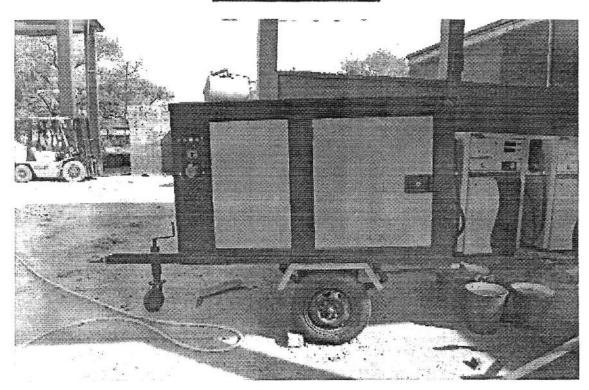
# (MOB MOTOR TROLLEY) PART-II

4			Parameter	3	Remarks						
ا ا	Des	ign Ch	naracteristics			(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)					
	a.	Gen D	Description								
П	b.	Physi	cal Aspects of Mob T	rolley:-							
1	c.	Tech / Performance Aspects									
		(1)	Vane Pump		8	Cap: 350 to 400 LPM, Operating Press: 6 Ba RPM: 630 to 700RPM, Operating Principal Sliding vane Inlet 3", Outlet 2 ½ " Couple Driven, Pump casing: Cast Iron Rotor: Cast Iron, Vane: Fortron Shaft: AISI 303 steel Type: Reciprocal moving with 1 rotor-6 vanes Make: IPT Turkey or other well-known Europe/ USA Frim Origin: Europe/ USA					
		(2)	Motor			Motor: 10 HP, 750-900 RPM Made in Weg USA other well-known Europe USA Frim					
		(3)	Pipe Line			Inlet: 2 ½ ", HDP Flexible (Imported) Outlet: 2" HDP Flexible (Imported) Hose Pipe Real: Cap 50 ft, pipe for 2"					
		(4)	Body			Chassis: MS C Chanel, Tyre: 2 x tyre (size 13 General Pakistan) Wheels: Solid Rubber with towing eye Accessories: Extinguisher, Tool kit, Tool Box					
		(5)	Electronic Panel			Connection: 3 Phase, 2 x breaker 16-18 AMP 1 x Electronic Kit					
0	1. k										
	T	(1)	Cptr Eqpt			Nil					
	T	(2)	Integration – Held Inv	entory		Nil					
E	9.	Envir	nmental Aspects			L					
	t		Temp Zone / Area		· ·						
	l			Max	Min						
		(1)	(a) Northern Zone (b) Southern Zone (c) Gen Cat	-	-	All aval temp across the country					
f	. 1	Spec (	Ops Conds		<b></b>						
1						All weather					

### RESTD

er			Parameter		10.00	Remarks	
	(1)	Re	pair & Maint				
		(a)	Fd		Wksp		
		(b)	Base		u		
		(c)	Req of TOT		Nil	Š	
	(2)	Sp	ec Storage C	onds			
		(a)	Fd				
		(b)	Dep		Should be	preferably kept under a shed	
		(c)	Misc				
	(3)	Spe	ec Tn Req		Toed with	1.5 ton or above veh	
h	ı. Sp	ec Emp	Needs		1 x POL Q		
i.	Au	x Eqpt /	Assy / Cap/ i	tems	Nil		
j.	Fire	Hazar	d / Risk				
k	ί.	Low Medium High		High	Extremely Volatile	High	

### MOB MOTOR TROLLEY



# (FIRE FIGHTING SYS) PART-I

Ser	1	Item	Responsibility	Remarks	
1.	Sp	ponsoring Dte	Responsibility	Remarks	
2.	No	omenclature / Title	Fire Fighting Sys		
3.	1	at of needed eqpt	Engr Eqpt / Civ work		
4.	Or	Need / Reg	WOIK		
	a.	To able to carry out firefighting from distance 60 ft (nearest bund wall) and should be able to cover complete POL tank with foam			
	b.	Should be able to cover tank surface with foam within max 3 mins after ops of pump			
5.	Ma	in Task / Reg / Obj			
	a.	To control fuel fire hazard within min time			
	b.	To avoid spreading of fire to other fuel tanks			
	C.	POL tank cooling			
	d.	Should be able to cover an area of 150 ft all around (360 degree) from the fire monitor			
	e.	Should be able to mov 100 ft from static monitor with the help of auto monitor incl foam towards fire thus giving 250 ft radius all around from static monitor for any fire			
	f.	Should be able to cover any fire incl fuel tank / PM / elec (after disconnection of elec) and wood / material fire			
6.	Ess	ential parameters			
	a.	Should be able to cover a distance of 150 ft from static monitor and 250 ft with auto mob monitor			
7.	Pre	ferable Parameters			
	а.	Should be easy to maint and repair			
	b.	Should meet safety precautions			

# (FIRE FIGHTING SYS) PART-II

Ser 1.			Parameter	Remarks					
1.	De		naracteristics						
II S	a.	Gen Description							
	b.	Physical Aspects of Fire Fighting Sys							
	C.								
		(1)	Fire Pump Set	(1x Elec + 1 x Diesel + 1 x Jockey) complet skid, horizontal end suction type, capacit 500 GPM @ 12 Bar. Controller star Delta Standard Accessories.  Excel series, Star Delta & with only discharg manifold.  Standard approved.  Vertical multistage type centrifugal Jocke pump closed coupled to elec motor:  Elec Motor: 60 HP 2900 RPM.  Jockey Elec motor: 3HP 380/415-V 2900rpm Engine: 60 HP – 2900 rpm  Automatic / Manual Elec control panel Make: Well-known Europe/ USA Frim Origin: Europe/ USA					
		(2)	Pipe Line	High Density Polyethylene Pipe 4 inch, Wall Thickness: 110 mm Working Pressure: 10 Bar Test Pressure: 14 Bar Standard: ISO 4427 or DIN 8074/8075 Make: Well-known Europe/ USA Frim Origin: Europe/ USA					
		(3)	HDPE Fittings	TEE, Elbow, Cap, Adopter, Cross. Wall Thickness: 110 mm Working Pressure: 16 Bar Test Pressure: 20 Bar Standard: ISO 4427 or DIN 8074/8075					
		(4)	MS Pipe	Mild steel seamless pipe sch 40 Dia 6, 4 and 2 ½ inch Pipe wall Thickness: 6 mm Working Pressure: 16 Bar Test Pressure: 20 Bar Standard: ASME/ANSI B36.10/19. Make: Well-known Europe/ USA Frim Origin: Europe/ USA					
		(5)	Fire Hydrant	Two way pillar Hydrant for monitor body material: MS – Seamless sch-40 Inlet: 150 mm Flange Outlet: 02 x 2 ½ " control valve with female					

# RESTD

Ser	. Substant	Parameter	Remarks
			BS Instantaneous BS 336 cap and chain. Working Pressure: 16 Bar Test Pressure: 20 Bar Colour: Red Make: Well-known Europe/ USA Frim Origin: Europe/ USA
	(6)	Fire Monitor	Body material: 100 type 304 stainless stee construction Inlet: 6" Flange, Outlet, 2 ½" Male BAT Flow: 750 GPM and 2 ½" waterway type 36 degree horizontal and 120 degree vertical travel Colour: Red Make: Well-known Europe/ USA Frim Origin: Europe/ USA
	(7)	Foam Nozzle/ Branch Pipe	Inlet: 2" Flow: @ 8 Br 2000 LPM Max service pressure: 175 PSI (12 Bar) Material Aluminium or S.S Flow: 400-600GPM (1500-2270LPM) Pick-Up tube: 1 1/4" clear PVC tube with SS dip tube - 3.0 mtrs long with 1 1/4" BSP
	(8)	Foam Concentrate	Aqueous Film Forming Foam (AFFF) 3% Standard: EN 1568 Temp: +50C, -15C Shelf Life: 30 yrs Packing (25, 100,200 ltrs)
	(9)	Mob Foam Unit	Foam tank: thermoplastic coated steel Tank cap: 140 ltrs Chassis: thermoplastic coated steel Wheels: Solid Rubber
	(10)	Ground Monitor	Type: water come foam Monitor Material: SS-304 Pressure: 7-Bar Min Through range: 45 Mtr (150 ft)
	(11)	Auto Foam Responder	Auto (Motor Cycle cap): 150CC Engine Type: 4 stroke OHV Single Cylinder cold by air Foam tank: Stainless steel -304. Tank cap: 500 ltrs Chassis: Mild steel Monitor: Inbuilt with tank Accessories: Fire hose box, Hotter, Flasher Extinguisher, Tool kit, Branch pipe, hood Make: Well-known Europe/ USA Frim Origin: Europe/ USA
d.	Comp	patibility Aspects	
	(1)	Cptr Eqpt	Nil

8 <u>RESTD</u>

r			Parame			Remarks			
	(2)	Inte	egration –	Held Inv	entory			Nil	
е	. Envir	onme	ental Aspe	ects					
		Temp Zone / Area						*	
					Max	Min		*	
	(1)	(a)	Northern	Zone	-	-			
		(b)	Souther	n Zone	-	-	All aval to	emp across the country	
		(c)	Gen Cat		-	-		- The country	
f.	Spec	Ops (	Conds						
	Dusty	Humid Rainy		Sno	w	All weather			
g	Logist	ic As	pects	.1					
	(1)	Repair & Maint							
		(a) Fd			*	Nil			
		(b)	(b) Base				MES		
		(c) Req of TOT				Nil			
	(2)	Spe	c Storage	Conds					
		(a)	(a) Fd						
		(b)	Dep				Used in dep only	<i>f</i>	
		(c)	Misc						
	(3)	Spe	c Tn Req				Nil	Management of the Control of the Con	
h.	Spec E	mp I	Veeds				12 x Fireman em	ployed as per To&E	
i.	Aux Ec	pt/	Assy / Ca	p/ items			Nil		
j.	Fire Ha	zard	/ Risk			$\neg \dagger$			
	Low	I	Medium	4	ligh	$\neg$	Extremely Volatile	Low	

# (FLOW METER) PART-I

Ser									
1.	Spi	onsoring Dte	****						
2.	No	menclature / Title	Flow Meter						
3.	Cat	t of needed eqpt	Engr Eqpt						
4.	Op	Need / Req							
	a.	To able to acct any qty passing through pipe line and passed info to PLC for record							
5.	Ma	in Task / Req / Obj							
	a.	To have a check on any filling / decanting from POL tank							
-	b.	To supplement RTG sys in accurate calc of POL product							
Ē.,	C.	To minimize chances of theft / pilferage							
6.	Essential parameters								
	a.	Should be able to acct POL product passing through							
7.	Pre	ferable Parameters							
	a.	Should be easy to maint and repair							
	b.	Should meet safety precautions							

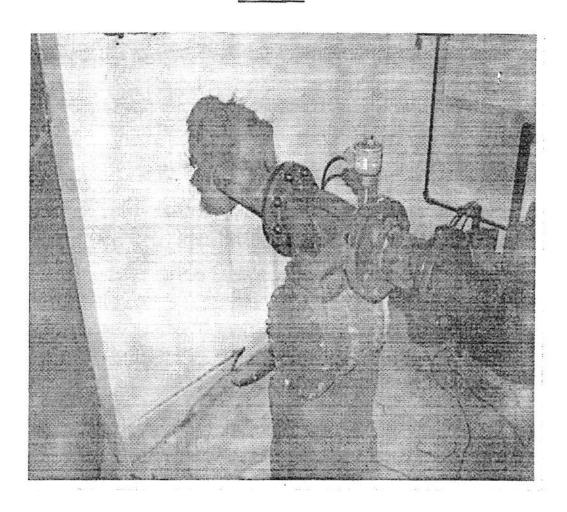
### (FLOW METER)

r				Parame	eter	PAR		Remarks		
.	De	sign Ch	aract	eristics				- Containe		
Ī	a.	Gen D	escri	ption						
t	b.	Physi	cal Aspects of Flow Mtr							
1	C.	Tech	Per	ormance A	spects					
							Type: Flow Meter			
The district or an area of the first of the construction of the co		(1)	Flo	w Meter				<ul> <li>Make: European/ USA/ Japan</li> <li>Input power: 220V AC, 50Hz</li> <li>Flow Range: 1000 LPM</li> <li>Line size: 4"</li> <li>Body: Stainless steel</li> <li>Application: Diesel, HOBC, PMG</li> <li>Accuracy: ±0.5%</li> <li>Temp: Standard (-60 to 260 deg F)</li> <li>Pressure: 10 Bar</li> <li>Signal Output: 4-20mA, Modbus RS485, Plus</li> </ul>		
***************************************		(2)	Area Classification					<ul> <li>Explosion Proof FM Class 1 Div 1</li> <li>Make Origin: Rose Mount / Tektrol or other well-known Europe/ USA Frim</li> <li>Origin: Europe/ USA</li> </ul>		
(	d.		atibility Aspects					Jongin. Europe, OSA		
	1	(1)	Cpt	r Eqpt				Nil		
1	е.	(2)	Inte	gration – H ntal Aspec	eld inver	itory		Nil		
1	-	LIIVIIO	Ter	np Zone / A	lros			T		
	1		Tomp Zon		uca	Max	Min			
		(1)	(a)	Northern		-	-			
			(b)	Southern	Zone	-	-	All aval temp across the country		
f	+	Spec C	(c)	Gen Cat		-	-			
1	·	Dusty		Humid	Dainy	C=		All .		
0	1.	Logisti			Rainy	Sno	w	All weather		
"	L	(1)								
		(1)	Repair & Maint							
		# 72	(a) Fd (b) Base					Nil MES		
22										
			(c)	(c) Req of TOT				Nil		
	T	(2)	Spe	c Storage	Conds					
	1		(a)	Fd				Head in don only		
			(-)				- W.	Used in dep only		

#### .....

Ser			Parameter			Remarks
		(1	) Dep			
		(0	) Misc			
1		(3) S	pec Tn Req		Nil	ŧ.
r	h.	Spec Emp	Needs		Nil	
	i.	Aux Eqpt	/ Assy / Cap/ ite	ms	Nil	
	j.	Fire Haza	rd / Risk			
		Low	Medium	High	Extremely Volatile	Medium

### FLOW MTR



### (RADAR TANK GAUGING SYS (RTG)

#### PART-I

Ser	I NOOVIISIDIIIV I RAN										
1.	Sp	onsoring Dte		- itomaina							
2.	No	menclature / Title	Radar Tank Gauging (RTG)								
3.	Ca	t of needed eqpt	Engr Eqpt	T							
4.	Op	Need / Reg									
	a.	Real time fuel IvI and temp monitoring									
	b.	Daily/ weekly/ monthly consumption reports									
	C.	Filling and decanting record / monitoring									
	d.	Safety of assets by monitoring temp and lvl in tanks									
5.	Main Task / Reg / Obj										
	a.	To monitor volume of a tank and give real time measurement of fuel incl temp and any addn / subtraction.									
6.	Essential Parameters (RTG)										
	a.	Accuracy ±2 mm									
	b.	Range 30 mtrs									
	C.	Protection IP 68 explosion proof									
	d.	Working temp 55 degree centigrade									
	Essential Parameters (Temp Transmitter)										
	a.	Accuracy 0.1degree FS		1							
7.	b.	Protection IP 66 water proof									
_	C.	Temp range -44 degree centigrade to 80 degree centigrade									
8.	Pre	ferable Parameters									
	a.	Should be easy to maint and repair									
ľ	b.	Should meet safety precautions									

# (RADAR TANK GAUGING (RTG) PART-II

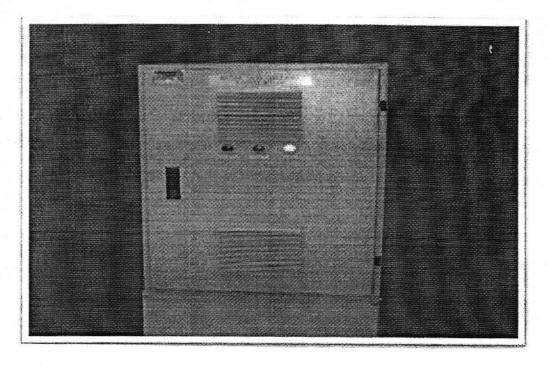
Ser			Parameter	Remarks				
1.	De	sign Ch	aracteristics					
	a.	Gen D	escription					
	b.			Gauging				
	۵.	Physical Aspects of Radar Tank Gauging						
	C.	Tech /	Performance Aspects					
		(1)	Non Contacting Radar	<ul> <li>Type: Radar Non-contact / guided wave</li> <li>Operating frequency: 26GHz, for non-contact / 6 GHz for GWR</li> <li>Input Power: 11 to 36 VDC, 2 wire Loop powered</li> <li>Measuring range: 30 mtrs</li> <li>Application: Diesel, HOBC &amp; PMG</li> <li>Temp range: Max upto 150 degree C)</li> <li>Signal output:4-20 mA w/Hart w/SIL 2 Hardware</li> <li>User Interface: Digital display and key pad</li> <li>Mounting: Integral</li> <li>Accuracy: +/- 3mm</li> <li>Repeatability: +/- 0.1 (3 or 0.05% of tank height (whichever is greater)</li> <li>Response time: &lt;2 seconds (configuration dependent)</li> <li>Warm Up time: &lt;30 seconds</li> <li>Enclosure: Cast Aluminium</li> <li>Electrical Entry: Two (2) M20 x 1.5</li> <li>Area classification: Explosion proof FM Class 1 Div 1</li> <li>Adopter Nut Material: 316/316L SS (C/S flange)</li> <li>Process Connection: 4" 150# ANSI RF, 316/316L. SS w/Carbon Steel flange</li> <li>Nozzle Extension: None</li> <li>Normal rating: 285 psig (19.7 barg) @70degree F (20 degree C)</li> <li>Rating @ max temp: 230 psig (15.9 bang) @ 265 degree F (129 degree C)</li> <li>Dielectric Range: 1.7 to 100)</li> <li>Span Limits: 0.5 ft (0.15m) to 130 ft (39.62m)</li> <li>Span Limits Based on: Dielectric =80.0, Turbulence= None</li> <li>Make: Rose Mount 5408 or other well-known Europe/ USA Frim</li> <li>Origin: Europe/ USA</li> </ul>				
	-	(2)	Multipoint Averaging Ter	np • Type: ATEX II 2G Ex db				

Ser		Parameter	Remarks
		Transmitter	T6, TI Gb certified Flexible multilevel sensor type 3 x Pt100-3 wire sensors with anchor weight and welded flange. With 3 transmitters Junction box material: Aluminium Size connection box: To suit req transmitter Cable entry: M20 x 1.5 (w/o gland) Extension: Nipple
			Extension Length: Approx 200 mm     Extension material: SS316     Construction: Flexible convoluted gas-tight SS tube     Length LX: 700mm     Diameter: 22mm
			<ul> <li>Material: SS316</li> <li>Process connection: 4" 150# RF</li> <li>Material flange: SS316</li> <li>Type sensor:Pt100-3wire</li> <li>Accuracy sensor: EN60751 class B</li> <li>Anchor weight: 4 kg (265 x45mm)</li> </ul>
			<ul> <li>Input: 1x Pt100-3 wire, Hart7</li> <li>Output:4-20mA</li> <li>Power supply: 8-30 VDC loop powered</li> <li>Range: 0 to 150 deg C</li> <li>Make: Rose Mount or other well-known Europe/ USA Frim</li> </ul>
			Origin: Europe/ USA     Inventory management sys should be capable of retrieving data from instruments, Radar IVI transmitters, temp transmitters, flow mtrs and any digital IOs via programmable controller     CPU of inventory management should be latest version.
51018	(3)	PLC	Sys should be capable for future expendability and addn     Data should be displayed on a dashboard and logged in excel/ csv. Format. On PC sys. Different page for HMI display should be made for data display, schematic of ops.
			<ul> <li>At least two yrs data history is req so that daily, weekly, monthly, or yearly reports could be extracted via printer.</li> <li>Sys should be capable to incorporate 35 analog inputs and 10 DI/10 DO.</li> <li>Hardwired sig from instruments to be incorporate in inventory management sys, then through TCP /</li> </ul>

		Parameter			Remarks		
				IP protocol this data will be accessed in PC sy with installed licensed inventory management Data logging software display and store data for further use.  Inventory management sys software will be licensed version  Software should be user friendly and addiagnostic features  Inventory management software should be capable of incorporating all these IOs with 20% extra in no of soft tags must be accordingly.  60 inch non android LCD should be incorporated for remote display  PC sys for inventory software should be mis specifications, as Core I7, Hard1TB, RAM 16GB with 24 inch LCD incl  Prewired control panel incorporating with complete hardware and programmable logic controller should be installed in it.  Supply of all instrument cables will be in contractor scope.  Any kind of mechanical work, cutting, welding it req will be in contractor scope of supply.  Trenching, refilling for instrument as well as controcables will be in contractor scope of supply.			
				1	pe/ USA Frim htry of Origin: Europe / USA		
	(4)	Wire		Wire CU/F instri     Make	will be used 1.5 mm2 x 1 pair, PVC/OS/PVC/SWA/PVC, shielded, Armoured ument cable e: Well-known Europe/ USA Frim htry of Origin: Europe / USA		
	(5)	Software			DA (Siemens, Germany)		
d.	Comp	atibility Aspects	-	1			
	(1)	Cptr Eqpt		l Nil			
	(2)	Integration - Held In	ventory	Nil			
_		onmental Aspects		1	1711		
e.	EllAllC			,	and the second s		
		Temp Zone / Area					
	(1)		Max	Min			

r	Parameter						Remarks			
2.48			(b) Southern Zone (c) Gen Cat		Southern Zone		•			
					-					
	f.	Spec Ops Conds								
		Dusty Humid Rainy Snow			All weather					
	g.	Logistic Aspects								
		(1)	Repair & Maint							
			(a) Fd			Nil				
			(b) Base			MES				
			(c) Reg of TOT			Nii				
		(2)	Spec Storage Conds			1				
			(a) Fd							
			(b)				Used in dep only			
			(c)	Misc						
		(3)	(3) Spec Tn Req			Nil				
	h.						1 x UDC			
	li.	Aux Eqpt / Assy / Cap/ items				3	NI			
	i.	Fire Hazard / Risk					- 232		<u></u>	
		Low		Medium	H	igh	Extremely	Volatile	Medium	

#### TK GAUGING SYS



#### **CERTIFICATE**

To: ISPR

Info: Creative Junction News Agency Pvt Ltd

Subj: Advertisement

Attached tender notice is forwarded herewith for publish in English and Urdu Newspaper by 21 Apr 2022 please.

Central Ordnance Depot Rawalpindi

Tel: GHQ: 34729

17 Normal/LP dated 21 Apr 2022

Local Purchase Officer (Muneeb Khalid)

# ٹینڈر نوٹس

سنٹرل آرڈ نینس ڈپوراولپنڈی کی تمام رجسٹر ڈفرموں سے متفرق سٹورز کی خریداری کیلئے سربمہر ٹینڈر مطلوب ہے۔ سٹور کی تفصیل پیپراکی ویب سائیڈ پر موجود ہے۔ ٹینڈر کھلنے کی تاریخ مور خد6 مئی 2022 صبح 11:00 تک ہے۔۔ ٹینڈر 6 مئی 2022 صبح 2030 بیا۔ بیج تک جمع کروائے جاسکتے ہیں۔

لو کل پرچیز آفیسر /سنٹرل آرڈ نینس ڈیوراولپنڈی،

فون نمبر 34729- 561

موبائل نمبر 03215314791

Central Ordnance Depot Rawalpindi Tel: 34729 17 Normal/LP dated 21 Apr 2022

Lieutenant Colonel Local Purchase Officer (Muneeb Khalid)

#### **TENDER NOTICE**

- Central Ordnance Depot (COD) Rawalpindi invites sealed bid from registered Firms 1. with this Depot for supply of misc stores for which details are available on PPRA website.
- 2. Tender will open at 1100 hrs on 06 May 2022.
- Tender deposit before at 1030 hrs on 06 May 2022. 3.

#### Contact:

Local Purchase Officer

Central Ordnance Depot Rawalpindi

Contact Mob No: 0321-5314791.

Phone No: 561-34729

Central Ordnance Depot Rawalpindi Tel: 34729

17 Normal/LP dated 21 Apr 2022

Lieutenant Colonel Local Purchase Officer (Muneeb Khalid)